

## Teaching String Ensemble using Model Based Teaching among Music Students in Public Universities

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**Abstract.** String ensemble is defined as a group of musicians that involved in the performance using instruments such as the violin, viola, cello and double bass. In order to develop a good string ensemble at beginner level, various issues arise where string educators continuously need to find new solutions in teaching the string techniques to their students. Currently in Malaysia, teaching string ensemble uses the conventional method of teaching where educators rely only on existing methods books, demonstration by instructor or professional string player and approaches based on experiences. Several issue become apparent in teaching string ensemble at beginner level at some university for instance organizing strategies based on materials for the beginner students, within the period time of study, ages of the students which normally range from 17 to 30 years old and students who started to play the string instrument in ensemble setting. Research study in this sphere still shows a gap and an auxiliary research study is needed to imbue this opening. This paper discussed the conceptual framework which was designed to examine the alternative method of teaching string ensemble using the Dick and Carey Model of Instructional Design (2005). In addition, this paper also presents the four teaching strategies which will be operated in this alternative method and finally evaluation will be made to compare with conventional teaching method which has been commonly used by the string educators recently.

### 1. Introduction

In western countries recently, teaching string ensemble has become a highlighted issue in string music education research and number of researches based on those issues have been conducted (Mishra 2001). As a result of growing interest in those issues, string educators there have tried to find new solutions in teaching string techniques to their students particularly in ensemble setting. Development in teaching strategies and the application of new approaches is crucial in order to help the students develop their skills successfully in string ensemble class. In her article, Mishra (2001) also suggested that although the most important issues in research of teaching string have been solved, the attempt to replicate is needed in order to get solid research findings. This information could be used by music educators there to improve their string ensemble music programs at the school level until the university level.

However in Malaysia currently, teaching string ensemble at the beginner level at some university still faced a number of important problems and issues which need solutions. Normally in the conventional teaching method for beginner string ensemble, method books are used as a tool to transfer information and also provide teaching strategies to the students. The method books enable the instructors to control many variables or teaching strategies in the learning process. However, these problems still occur among instructors during the process of organizing the selected materials

and teaching methods into their instruction where it can be delivered efficiently to the student within the given duration of study time.

In order to solve these problems, a framework based on model should be able to overcome this situation and teaching strategies will be developed to assist the instructors in teaching string ensemble at the beginner level. The particular design of model or framework can help the students learn effectively in teaching and learning environment (Joyce and Weil 2004). Utilization of these teaching media will encourage the instructor to use innovations and new strategies in teaching string ensemble. This model framework will allow utilization of new materials such as new teaching strategies, video, audio and software in the teaching and learning materials rather than depends only on method books. The major concern of this study is to provide the instructors with a systematic instruction which incorporate new strategies and new improvement of teaching string ensemble.

### **Problem statement**

Recently in Malaysia, various number of method books for individual and ensemble setting can be found in some book stores and being used in public school, college and university. Names like Suzuki, Roland, Applebaum, Klotman and Bornoff have devoted their instrument techniques skills into presenting information in form of sequels performance skills and repertoires. Unfortunately, some of the methods books which have been located in some university's library in the area of Selangor are specifically for teaching beginner individual class but not for beginner string ensemble class consisting mature students. Occasionally, the contents of those method books focused specifically on one major instrument. As a result, it was not applicable for instructors to utilize these method books into ensemble setting. On the other hand, there are some methods books that have been designed specifically for ensemble setting such as *All for Strings: Comprehensive string method* (Anderson & Frost, 1986), *Essentials for Strings: A systematic approach to technical development* (Anderson, 1985) and *String Builder: A string class method* (Applebaum, 1960). However, the contents of these method books were only suitable for school level but not for beginner string ensemble at university level. For example, short and sample pieces for exercises are not appropriate for these students at university level. Therefore, the instructor sometimes have to use a number of method books in order to find the suitable short pieces as an exercise for these students. The problem gets worse when the exercises are not applicable for other string instruments at beginner level such as cello or double bass. Organizing suitable materials using the method books sometimes become a problem for the instructor and students in the university level. Klotman (1996) in his book 'Teaching String,' suggested that not all the method books which have been published indicated all problems in teaching string ensemble. As a result, these problems will affect the objective of the string instruments study within the given duration of time. Many instructors do not realize that using unsuitable method books for the beginner mature students will affect the time duration in teaching string ensemble at university.

In this study, time indication of the study in universities in Malaysia still shows problem mostly for teaching skills of string ensemble. In fourteen weeks, the instructors have to wrap up the entire string ensemble course by only using the selected material such as method book which needs to be interpreted through their experiences and skills. As we know the string instruments incorporate the physical, intellectual and expressive qualities of the person who plays the instrument. They can provide the individual on direct means of combination of hands, head and heart. However, at the beginner string ensemble level, teaching skills needs lots of passion and time for the students to develop a good fundamental of playing string instruments from individual to ensemble setting. For example, the students who had been chosen to enrol in a beginning string class program have to devote themselves to learn the string instrument in an ensemble setting within the period of time which has been indicated in the universities programs. Simultaneously, the problems occur when the instructors have to utilize all teaching strategies from selected materials which have to be incorporated within fourteen weeks of the string ensemble class. However, it is

still complicated for the instructors to use the instruction in the method books within the actual time frame of fourteen weeks to teach the ensemble class which consists of violin, viola, cello and double as it was not design to be implemented in fourteen weeks of study. As a result, sometimes the instructor is incapable in finishing the syllabus by using this selected method book and it become a major problem for the instructor and students. This situation can be defined as a part of the problem in teaching string ensemble mainly on organizing selected material within a limited framework of teaching a beginner string ensemble and need to be investigated for the benefits of the instructor and students.

Student's age still remains a research question in teaching string instruments. The argument was on the student's ages between 17 to 30 years old because this is the range of ages when the students enter to the university level in Malaysia. For example, the candidate normally comes from Malaysian Certificate of Education (MCE) leaver, Malaysian Higher School Certificate (MHSC) leaver and also from diplomas level. As music students, they will take a string ensemble class. The problem becomes worse when the students have to learn the certain skills in string ensemble using a method book instruction. On the other hand, the question occurs whether this method book is suitable for them and how the instructor can utilize the teaching strategies by using this method book for this group of ages. In western countries for example, it has been suggested that Suzuki's method is suitable to teach the younger students (Steinschaden & Zehetmair, 1982). Suzuki programs have been proven to be the successful programs for kids around the world. The strategies were designed to teach the string instruments at the early age mostly at kindergartens and school level. However Klotman (1996) believed the single-instrument classes are needed for younger students but the ensemble approaches are more preferable for mature students who are more interested in sound of orchestra. This study allows the researchers to focus on the identification and determination of teaching strategies for the student's age between 17 to 30 years old to learn playing the string instruments in ensemble setting at the beginner level.

In western countries, there are quite a number of researches that deals with the beginning string classes and some of the result of the studies indicated a significant difference in student's achievement. However, in some universities in Malaysia some considerations need to be taken into account for the students who enter the music program to take an ensemble class at the beginning of their study without any experience on playing the strings instrument. The investigation needs to be carried out in order to find out whether these groups of students can be taught effectively in ensemble class setting which consist of various string instruments whereby in the real environment of the study, they normally will take the techniques class before entering the beginning string ensemble. Consequently, it will take a lot of their study time to learn a new instrument. On the other hand, this problem needs to be solved in order to give benefits to new students to learn new instruments within their limited time frame of study at university. The effectiveness of music teaching depends on the balanced view of music and also aspect of musical objectives and procedure are necessary in order to gain the variety type of music for students to learn it (Hoffer 1983). By choosing the right repertoires for exercise and ensemble pieces, the process of learning can be more enjoyable and attractive. This is also a part of researcher strategies to develop the student's interest in playing the new instruments which they never play before by using an interesting music or repertoires for their exercises and ensemble pieces. By better understanding on the appropriate repertoires or pieces for exercise will increase the potential of interest on playing new instruments among this group of students.

### **Objective of the paper**

The purpose of this paper is to present the design of conceptual frame work using the Dick and Carey Model of Instructional Design (2005) which has been chosen as a framework devise for teaching the beginner string ensemble class. Additionally, this paper also presents the four teaching strategies which will be included in this alternative method and finally evaluation will be made to compare with conventional teaching method which has been used by the string educators recently.

## **2. Literature review**

### **2.1 Studies related to teaching beginning string class**

Several researchers have examined some of the problem in the beginning string classes. In this chapter, the researcher reviews some of the problem which has a relationship with this study. Many researchers like Bergonzi (1991), English (1985), Schulte (2004), Dell (2003) and other have identified some of the problem which related to teaching beginning string classes such as left hand techniques, right hand and bowing techniques, class organization and tool aid for beginning string instruments. In order to determine the related problems in teaching beginning string classes, it is necessary to review and investigate the literature pertaining to learning process, developing the curriculum and basic problem that are isolated in the area of research.

### **2.2 Studies related to ensemble string class**

Many studies have been conducted on organising a beginning string class using the homogeneous setting and heterogeneous setting. Van Camp (1989) investigated on the preferable between the homogenous and heterogeneous among mildly handicapped students from 24 middle schools. In his study, the treatment was in 12 week period which focused on bowing techniques, musicality and ear training. Based on those aspects, the students were evaluated and the result shows that there is no significant difference on those two types of class setting.

A study by Kantorski and Ellsworth (1988) examined the three week instruction on strings methods course in the homogeneous and heterogeneous class setting. In a period of the study, the subjects were examined on the visual performance and aural performance. The result of the study revealed no significant difference on those groups based on the overall visual performance and aural performance. These studies focused on the class setting for the beginning string class. The findings from those studies showed no significant different on students' achievement between homogeneous and heterogeneous setting class even though the populations from the study were vastly difference.

### **2.3 Overview of Dick and Carey model**

As defined in 'The Systematic Design of Instruction', the system approach model was first taught in a course at Florida State University in 1978. The model has been heavily influenced by the work of Robert Gagne, Leslie Briggs, Robert Mager, Robert Glaser and Lee Cronbach. Dick and Carey (2005) explained that the combination of teaching components such as the instructor, students, materials, instructional activities, delivery system and performance environment interact between each other and work in relationship in order to develop the students achievements in performance. The purpose of the study is to determine the effectiveness of using this model-based teaching of string ensemble music at the beginner level. The researcher chose this model because it has been found most commonly used in developing, implementing and evaluating successful instructional design.

Very few studies have addressed the research question on the usage of the Dick and Carey model in designing the instructional in music education. A recent study by Potgieter (2004) examined on the design of multimedia study package for sight-singing. In his study, the researcher designed the multiple-media study package that could be used in sight-singing and applied the Dick and Carey model system approach as a designing instructional. In his research, the researcher was responsible for the students aged between 9 to 13 years in one of choir schools in South Africa. The study package consisted of workbook, a test book and two audio CDs. The studies revealed that the usage of the package has identified the clear various problem of teaching sight reading. As a result the students recently can use this multiple media on their sight reading without any supervision.

According to Dick and Carey (2005), this model was based on the ten stages that connected to

each other. The major line showed the feedback between the first box to the last box. Below are the ten stages and the diagram of the Dick and Carey Model:-

Table 1: Ten stage of Dick and Carey Model

Instructional Stage	Definition
Stage 1: Identify instructional goal	<ul style="list-style-type: none"> <li>To identify what the learners will get after they completed their study</li> </ul>
Stage 2 Conduct instructional analysis	<ul style="list-style-type: none"> <li>To design the step by step of the process to achieve the instructional goal</li> </ul>
Stage 3: Analyse learners and contexts	<ul style="list-style-type: none"> <li>To identify what skill are needed and which contexts to be used</li> </ul>
Stage 4: Write performance objectives	<ul style="list-style-type: none"> <li>To write based on the behaviours skills, the situations and criteria of successful</li> </ul>
Stage 5: Develop assessment instrument	<ul style="list-style-type: none"> <li>To identify based on the selected objectives</li> </ul>
Stage 6: Develop instructional strategy	<ul style="list-style-type: none"> <li>To identify the finest strategy to achieve the objectives based on feedback</li> </ul>
Stage7: Develop and select instructional materials	<ul style="list-style-type: none"> <li>To produce instructional materials</li> </ul>
Stage 8: Design and conduct formative evaluation of instruction	<ul style="list-style-type: none"> <li>To design the assessment materials based on objectives</li> </ul>
Stage 9: Revise instruction	<ul style="list-style-type: none"> <li>Data on evaluation and learners achievements</li> </ul>
Stage 10: Design and conduct summative evaluation	<ul style="list-style-type: none"> <li>Independent evaluation on the instructional</li> </ul>

Note: Dick and Carey (2005, p.6). Components of the systems approach model.

### 3 Methodology

#### 3.1 Subjects of the study

This investigation involves 40 music students from two selected public universities in Selangor (n=20) and Perak (n=20). These two universities were selected because both universities have a string ensemble program at beginner level, a large number of music students who will enrol in string classes and will also provide the sample students who are going to start playing string instruments at beginner level. The participants will be selected from the music program of both selected public university who will be enrolling in the beginner class of string ensemble. In this study, the criteria of selected the students will be chosen based on ages between 17 to 30 years old who will started to play the string instruments at beginner level.

#### 3.2 Design Stage

The design was based on the framework of Dick and Carey model (2005). In this framework there are ten stages to design the instructional of model based teaching. As a result, the prepared model based teaching will be supported by selected material such as interactive media, audio visual and software to utilize the contents and the teaching strategies to be delivering to the students as a treatment for teaching the beginner string ensemble. The instructor will be able to manipulate this model based teaching during classroom lessons. This model based teaching will allow the instructor to be able to create an enjoyable and attractive instruction to the students based on the design of the instructional.

This combination of interactive charts, interactive instruction and audio visual will be in cooperated with these four teaching strategies in this model based teaching. In this alternative method, the four teaching strategies namely as communication, exploration, hands-on experience and experimentation will be used according to the suitability to the contents and learning outcomes for the student. Figure 3.2.1 shows the design of the instructional design based on contents of the teaching beginner string ensemble.

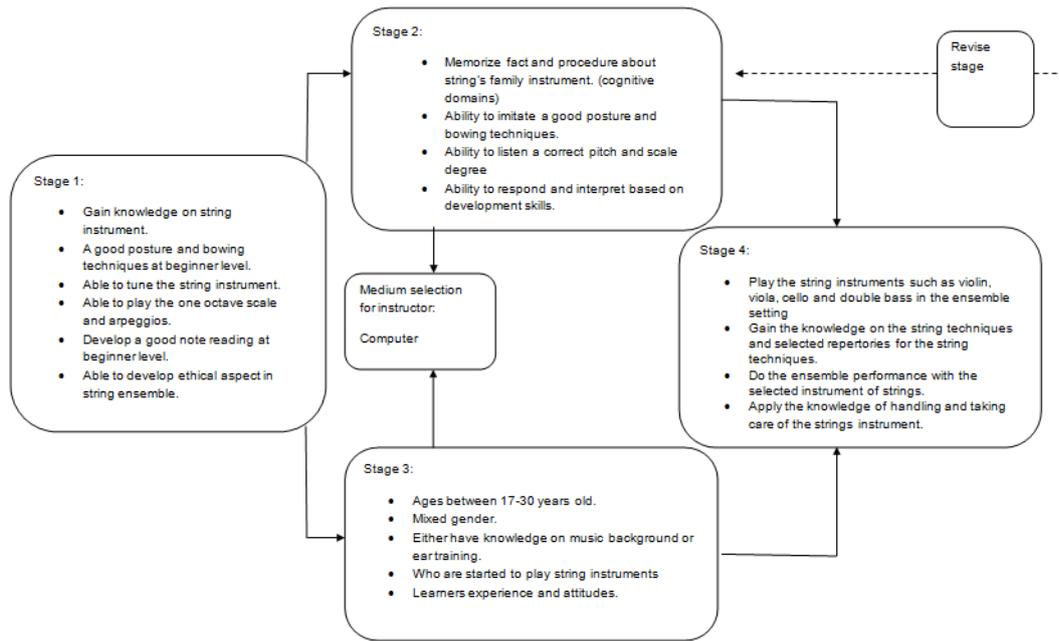
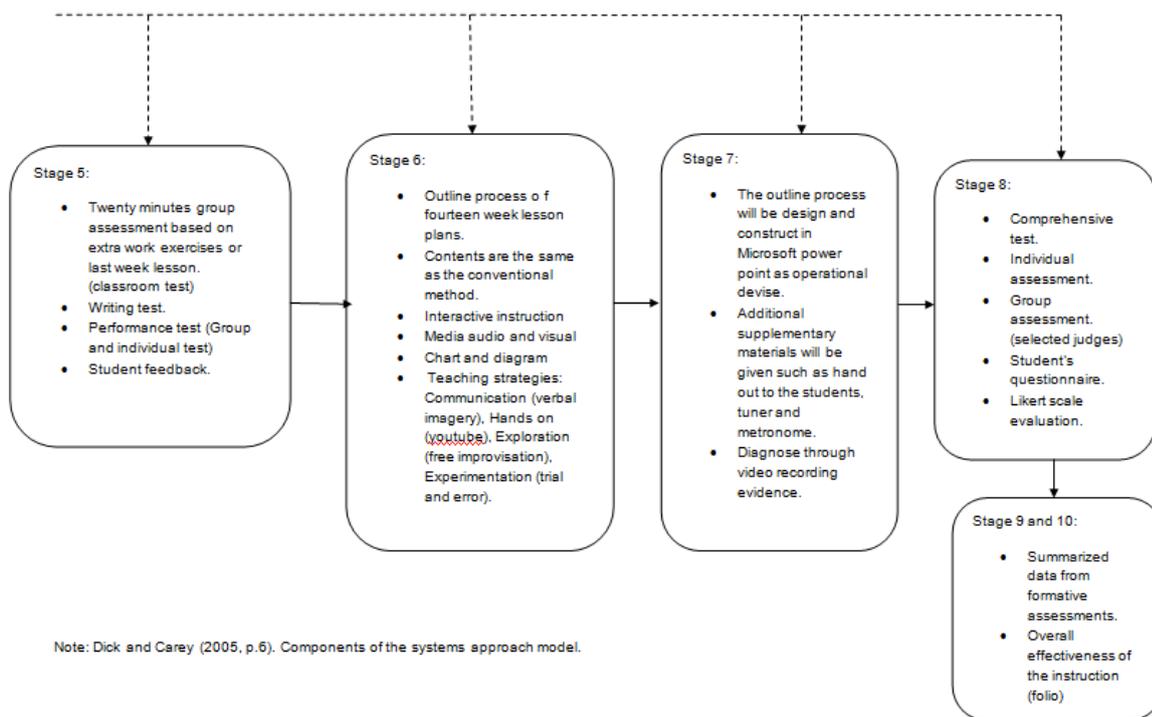


Figure 3.2.1 The Design of the Instructional for Teaching String Ensemble Using Dick and Carey Model (Continued)



Note: Dick and Carey (2005, p.6). Components of the systems approach model.

Fig. 3.2.2 (continued). The Design of the Instructional for Teaching String Ensemble Using Dick and Carey Model

## Conclusion

In conclusion, the interactive charts, interactive instruction and audio visual need to be in cooperated together with the four teaching strategies which have been implemented in the framework of the Dick and Carey Model (2005). Finally, this design function as an alternative teaching method for the instructors who are currently using only conventional method in their teaching method to the beginner string ensemble class.

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