The population in South Africa represents a microcosm of the world. The music of various cultural groups and countries is heard daily. A typical South African style is being developed by the blending of these various styles. The Unit for Telematic Teaching and Learning and the Department of Music of the University of Pretoria (South Africa) have designed a music program on CD-ROM, "Music in South Africa," to expose students in music education to the various styles. This paper describes the purpose of this program, shows how it was designed, and briefly reviews a few highlights related to the four main sections of the program--elements of music, art music, popular music, and folk music. Seven sample screens are included. (Author/DLS)
A Multimedia Approach to Music Education in South Africa

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Abstract: The population of South Africa represents a microcosm of the world. The music of various cultural groups and countries is heard daily. A typical South African style is being developed by the blending of these various styles. An aim of the CD-ROM program Music in South Africa was to expose students in Music Education to the various styles. This paper will describe the purpose of this program, show how it was designed and briefly review a few highlights.

1 The Purpose of the Program Music in South Africa

The population of South Africa represents a microcosm of the world. The music of various cultural groups and countries is heard daily. A typical South African style is being developed by the blending of these various styles. An aim of the CD-ROM program Music in South Africa was to expose students in Music Education to the various styles.

Those charged with the teaching of music often do not have the resources, knowledge and skills to make Music Education relevant to pupils and students. Especially in the previously disadvantaged communities, this program can also be used for in-service (INSET) training to provide teachers with a wider background of musical concepts and styles. It can also be used for basic teacher training (PRESET) and music enrichment.

The University of Pretoria needs to position itself for the 21st century by employing more appropriate teaching models. These include the expansion of distance learning opportunities with technology, in particular computers, TV's and satellites, that will form an integral part of these teaching models. These modern technologies can be used to provide teaching material to address backlogs in education. This program will provide students with the opportunity to work at their own pace and whenever it suits them. Little has been done in the area of music programs that focus on learning. This program aims to meet this need.

2 The Design Approach

The Quest Net Multimedia Authoring System was used as authoring tool. Using an on-screen design approach, an artist designed the backgrounds and colourful borders, the subject expert provided the content, while the instructional designer was responsible for the layout and structuring of the program. It was an interactive process in which the realization of the possibilities of the authoring system provided new ideas to
both subject expert and designer. The instructional design did not start with a full storyboard but evolved from a few basic ideas.

The product was taken to an outside authoring company and they estimated that they would use more than double the time to design the product. Although it was time-efficient to use an on-screen design approach, it had its own problems. The language editing was done at a late stage and changes to a whole screen had to be done. The subject expert is a full-time lecturer and was not assigned only to this project. She had to find extra time to compile the subject content which caused difficulty with the scheduling of the instructional design.

The University of Pretoria is committed to provide a flexible mode of learning to the student in which the physical contact time between lecturer and student is lessened. Multimedia on CD-ROM will be only one of various technologies that provide teaching and learning interventions. The Unit for Telematic Teaching and Learning realises that lecturers often do not know what the possibilities and limitations of multimedia are and that they find it very difficult to create a storyboard. To attain a better production rate it is envisaged that prototyping will frequently be done with an on-screen design approach but that the rest of the program will be out-sourced.

3 Highlights of the Program

The program is divided into four main sections: Elements of Music, Art Music, Popular Music and Folk Music. A shell-motif was used in the design because listening to various musical styles forms the basis of the program. The shell-motif was used on the first screen and all subsequent menu screens. The soft pink-brownish colour of the shell and the basic background made it compatible with many colours, borders and other design elements. After each main section the student can do a quiz for self-assessment purposes.

3.1 Elements of Music

In the first part of the program the student can learn about the common elements of music. The program uses short music excerpts to introduce the student to pitch, dynamics, duration and tone colour. It also deals with form, texture and style. The student needs to work through this section to understand the terminology and concepts used in the rest of the program. The following is an example of a menu screen in which the student
can choose to learn about the common elements of music. The ticks will only appear when the student has worked through that particular section. The student can listen to short excerpts of music to reinforce the various concepts that are discussed. The designers tried to chunk the material. The sections on meter in 3 and meter in 4 will only appear on the following screen after a *More*-button is clicked. The top left corner always indicates the main section that is dealt with to provide cognitive support to the student.

### Elements of music

**Duration (continued)**

As you listen to this excerpt of music, feel the beat. You can also practise the conducting pattern for meter in 2 (duple).

\[ \frac{2}{4} = \text{duple} \]

As you listen to this excerpt of music, feel the beat. You can also practise the conducting pattern for meter in 3 (triple).

\[ \frac{3}{4} = \text{triple} \]

As you listen to this excerpt of music, feel the beat. You can also practise the conducting pattern for meter in 4 (quadruple).

\[ \frac{4}{4} = \text{quadruple} \]

### 3.2 Art Music

#### 3.2.1 Western Art Music

The Baroque, Classical period, Romantic period and Twentieth Century are considered in this section. These musics are heard daily in South Africa and are therefore important in Music Education curricula. The designers aimed to make the visual layout of the screen complement the style of the music that can be heard. Different borders and visuals such as paintings and buildings of a specific period or style are used to reinforce the characteristics of the music style.

**Western art music**

**The Romantic period**

(circa 1820 - 1900)

The early nineteenth century brought the flowering of romanticism, a cultural movement that stressed emotion, imagination and individualism. It was a rebellion against the age of reason.
In each style or period an excerpt of music along with an animation of certain pertinent features is presented to allow the students to see what they are supposed to hear. On the following screen the instruments appear when they are heard in the sound example.

### 3.2.2 South African Art Music

This music is often a blend of styles which includes typical African characteristics such as irregular rhythms. An orchestral work about Shaka, who became king of the Zulus in 1815, is one of the music excerpts used to illustrate South African music.

### 3.2.3 Indian Art Music

This part of the program emphasises the fact that the character of Indian music is spiritual and that it does not blend easily with other music styles.
3.3 Popular Music

Popular music is the general term for modern commercialised music. In South Africa there is a rich variety of popular music and in this section of the program the South African style of popular music is discussed as well as Gospel music, the Afrikaans 'Luisterlied' and Township music. On the following screen the poem is animated while being sung.

3.4 Folk Music

Folk music is derived primarily from oral tradition and is passed from one generation to the next. African Folk, "Boeremusiek" and Cape Malay music are heard in this section of the program.
4 Summary

The on-screen design approach used in the development of the CD-ROM *Music in South Africa* stimulated the creativity of both the instructional designer and subject specialist and made it a rewarding project. Putting music technology together in a CD-ROM was not only a new experience for the University of Pretoria, but the beginning of a new research project. How this CD-ROM can be expanded, upgraded, evaluated and used in educational and enrichment programs, are aspects currently being explored further.

5 References

All the resources used for the design of the CD-ROM are listed in the program.
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