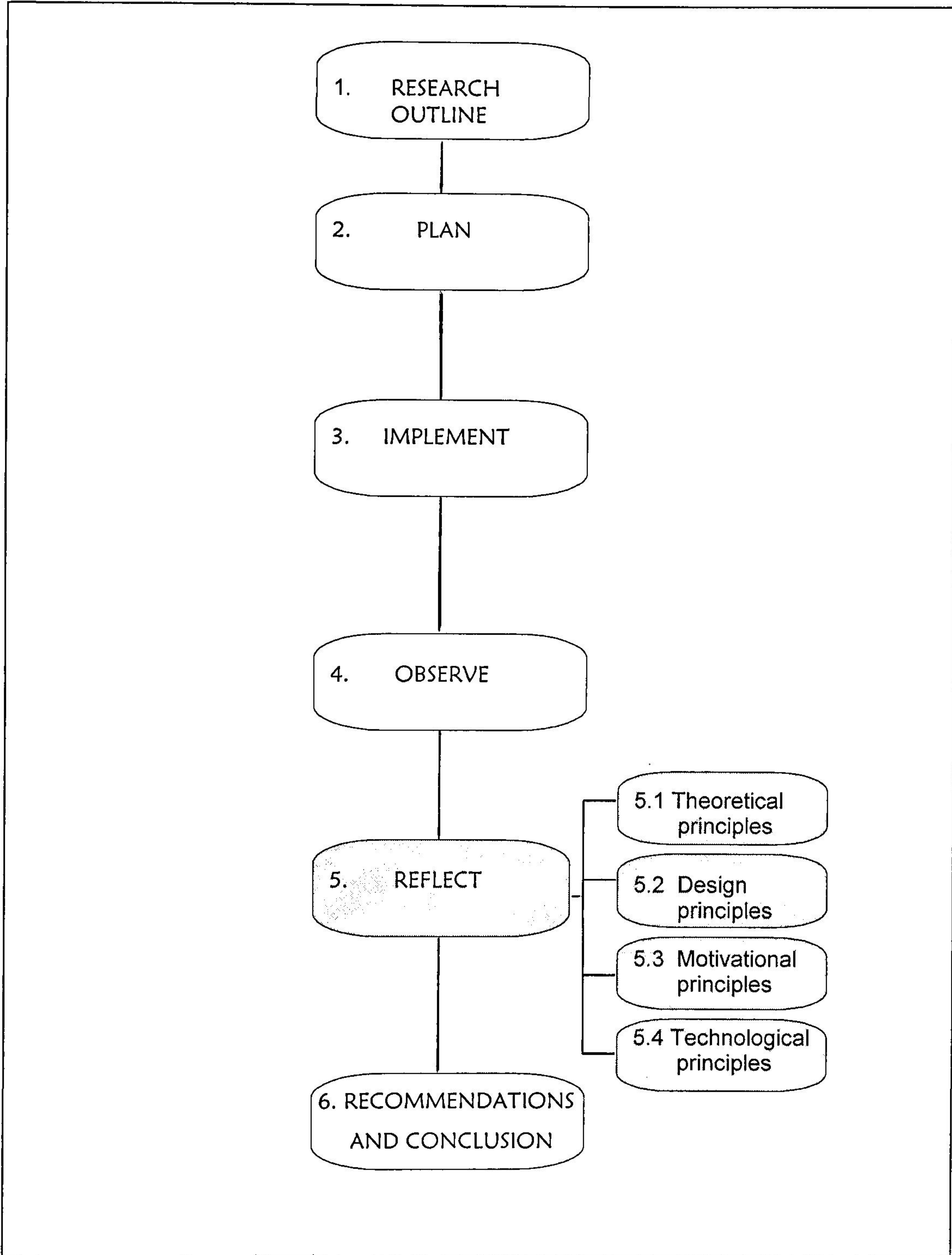


CHAPTER 5

REFLECT



INTRODUCTION

The focus of Chapter 4 was on observing the effectiveness of the DMEP by means of various data collection structures. Davidoff (1990:42) suggests that as many as possible resources should be used for gathering information. 'Observation means gathering information from as many resources and perspectives as you regard as helpful and necessary, so that you will be able to make meaning of your observations in your reflection' (Davidoff 1990:43).

The focus of this chapter will be on the reflection on the gathered data. This involves a critical revision of the designed programme in order to determine the effectiveness of its design. The critical observation will once again involve the experts' opinions, the researcher's own experience as well as the learners' responses as addressed in the informal questionnaire.

Unlike the answers to the literature review and researcher's experience, the answers to the questionnaire will be tabulated. It is important to note that the answers to the questionnaire will be given by case studies from the three identified learner groups. The informal questionnaire's answers are further supported by the comments made by each case study during an interview. The case studies were selected according to their diverse educational backgrounds and levels of experience. The learners are therefore divided into the following categories:

- African and foreign learners;
- teachers with a degree or teachers' diploma; and
- residential learners furthering their education.

These three groups are not watertight compartments. Most of the African or foreign learners are indeed also teachers, but they are classified separately because of their language preferences and study experience. The characteristics of each group as well as the selected case study will be introduced in the following paragraphs.

■ African and foreign learners

The first group of learners discussed are African and foreign learners. Most of these learners are from South Africa's neighbouring countries or come originally from other countries such as Germany and China. These learners have already obtained at least a BA Mus degree or BA degree with music as a subject and/or a teacher diploma or the equivalent thereof. These learners often lack the necessary pedagogical background of Music Education as practised at the University of Pretoria. The pedagogical backlog is increased by the fact that most are not English first language speakers. These learners often experience problems understanding the information and expressing themselves effectively. Although many of these learners are also teachers by profession, they are listed separately because of the language and educational barrier.

● African learner case study

The African learner that was selected is a male student of 33 years of age. He teaches Music at a teachers college in the North West Province. Currently, he is busy with his BA Mus degree but because of his work schedule and distance from Pretoria, he made use of the DMEP for study material and attended the three contact sessions prescribed for the course. Because he is not yet an Honours student his assignments were drafted to fit his level of knowledge and expertise. The same methods of assessment were, however, used as in the Honours programme. This student will therefore be able to assess every level of the DMEP as a BMus Honours student would have done.

■ Teachers with a degree or teachers' diploma

The second group of learners enlisted for the Music Education Honours course are teachers who have been in practice for a number of years. These teachers often experience a need to further their qualifications and are looking for new inspiration and ideas from the lecturers and their fellow learners. For many of these teachers it has been a long time since they last studied and they find it difficult to cope with their studies and work load. These teachers often find that the methods that they have been using are outdated. They therefore have to adapt to the latest methods and trends in Music Education teaching. These trends include the principles of Outcomes-based facilitation, computerised teaching, research methods and academic approaches. Although the teachers may be practically highly skilled, they

are academically not as well advanced as recently graduated learners. Their many years of practical teaching experience are to their advantage, but they still need to balance this with increased academic skills.

- **Teacher case study**

The teacher is a 51 year old female student with 30 years of teaching experience. She is currently teaching at a Private English School in Pretoria. She did a PTD (Primary Teacher's Diploma) as well as a FDE (Further Diploma in Education) in music. Although she has 30 years' experience, she last studied in 1987. She therefore needs to ensure that her knowledge and teaching skills are still up to date with the latest developments in the field of Music Education.

- **Residential learners furthering their education**

The third group of learners are learners who have recently completed their BMus or BA Mus courses at the University of Pretoria or other South African universities. These learners have significant academic background, but lack teaching experience. They are usually residential, full time learners. The DMEP has to be compiled so as to stimulate their advanced subject knowledge and give them the opportunity to develop their practical skills.

- **Residential case study**

The case study for a residential student is a late starter, female student in her early forties. After completing her BA Mus degree at the University of Pretoria in 1997, she studied an Honours degree in Biblical studies. This student has therefore been a student since 1995 and has no formal teaching experience.

Because of the fairly small number of learners enrolled in the DMEP, only one learner from each group was used for the case study. The learners were selected to fit the profile of the selected three groups. The three case studies' exact answers to the questionnaire and interview will be given in tabulated form. This will enable the researcher to compare the learners' experiences. It is possible that the literature review, researcher's experience and questionnaire have varying responses and results. This will give a clear indication of the success or otherwise of the programme. All of these should be taken into consideration when the programme is

refined. The outcome of the reflection is to determine where the designed programme can be improved.

The outline of this chapter will be based on the first of the three steps of reflection as suggested by Davidoff (1990:46) in his action research cycle. These steps involve:

- *sorting out* the meaning of all data that was gathered;
- *critically evaluating* the consequences of the designed action; and
- using this evaluation to help *plan* the *next action cycle*.

In order to sort the data for meaning, the questions asked in Chapter 4 under the literature review, researcher's experience and informal questionnaire were answered. The theoretical, design, motivational and technological principles of the three observation structures will be grouped together. By doing so, the outcome of the three evaluation structures can be compared. This will enable the researcher to determine the success of the DMEP.

A short summary of the questions asked and their headings will be tabled before the questions will be answered. The three evaluation structures answer the questions of:

- what does the literature say?
- how did the researcher experience it? and
- did the learners experience it differently?

By tabulating the questions, the interdependence of the literature review, researcher's experience and informal questionnaire can be highlighted.

5.1 THEORETICAL PRINCIPLES

The theoretical principles form the basis of an instructionally designed programme. Although no literature could be found on the design of a DMEP, these questions will enable the researcher to determine how the principles of instructional design and distance education can be applied to the field of Music Education.

TABLE 5.1. Questions on learning theory

Theoretical principle	Literature review	Researcher's experience	Informal questionnaire
Learning theory	<ul style="list-style-type: none"> Which theory or combination of learning theories should be selected to form the basis of the design of the DMEP? 	<ul style="list-style-type: none"> How were the learning theories employed in the DMEP? 	<ul style="list-style-type: none"> Through the material you were prompted to understand and apply knowledge rather than remembering it off by heart. How successful was this strategy? <p>1 = Not successful at all 2 = Moderately successful 3 = Successful 4 = Very successful</p> <ul style="list-style-type: none"> If you chose numbers 1 or 2, could you give a suggestion to improve the understanding of the material?

▪ **Which theory or combination of learning theories should be selected to form the basis of the design of the DMEP?**

In order to answer this question, the key aspects of constructivism and behaviourism need to be presented. Curricula have traditionally been sequenced according to the behaviouristic belief that the best way to learn is to master small bits of information and then integrate them into major concepts. As a result, assessment practices focus on the measurement of knowledge and skills and not on performance and understanding (North Central 1999).

The need for assessment of learners' performance and their understanding of assessment structures led to the formulation of a learning theory where active

involvement in the learning process is key. According to the constructivist learning approach, learners should be considered to be individuals in the learning process, each bringing their own background and needs to the learning process. To select the most appropriate learning theory, constructivism and behaviouristic philosophies need to be compared. Table 5.2 summarises the key principles of behaviourism and constructivism.

TABLE 5.2: Behaviourism compared to constructivism (Houghton Mifflin 1999)

Behaviourism	Constructivism
Learning is inactive.	Learning is active.
Individuals are passive recipients of knowledge.	Individuals construct knowledge.
Learning occurs through programmatic, repeated activities.	Learning develops from what the learner already knows.
Authoritative facilitation.	Strategic and meditative facilitation.

Table 5.2 can be used as a reference for indicating how and which of these principles were used in the design of the DMEP. By linking each of these aspects with the designed DMEP, the facilitator could determine what learning theory or selection of learning theories should be chosen for the DMEP.

■ **How were the learning theories employed in the DMEP?**

In selecting the most appropriate learning theory, the principles of each theory and the application to distance Music Education need to be considered. Because of the diversity of learners enrolled for the DMEP, not only one learning theory could be selected. The facilitator needed to select a learning strategy that would involve different aspects and methods of learning. This will enable learners to follow the DMEP regardless of their educational background and current level of expertise. This approach to learning is in line with the beliefs of lifelong learning and individualised instruction where the emphasis is not on the entry level of learning but on the outcomes reached at the end of the learning sequence. The following aspects from behaviourism and constructivism were incorporated in the DMEP.

• Behaviourism

Behaviourism is prominent in the roots of the systems approach to instructional design. The task analysis of the systems approach and the specification of behavioural objectives are related. Gagné, Briggs and Wagner in Burton (1996:58) identified several principles that apply centrally to behavioural instructional design processes. These include the:

- identification and stating of goals and objectives;
- validation and measurability of outcomes and standards; as well as the
- adaptability of the programme to learner behavioural changes.

Through this process, learning material is broken down into small manageable chunks, each followed by a question which the learner can almost never answer incorrectly. The outcome is to reinforce learning through immediate response and the reward of getting it right (Black 1995). These principles of facilitating the learners' response and behaviour were followed in the DMEP.

The learning material of the DMEP was divided into modules of learning. Each module is further divided into manageable learning chunks. After a section is completed, a summary of the content is given. Learners then have the opportunity to apply the newly acquired knowledge by means of various activities and assignments. Through the activities learners get the opportunity to respond to the learning process and reinforce their knowledge. If learners answer incorrectly, they are given guidelines on how to rectify their mistakes. Learning is consequently repeatedly reinforced. Behaviourism has therefore proven to be useful in managing both behaviours and the instructional delivery.

• Constructivism

In constructivism the emphasis is placed on learners, their experience and contribution to the learning process. Learning should be facilitated so as to give the learners the opportunity to gain knowledge and understanding through problem-solving activities. The constructivist viewpoint acknowledges the diversity of learner backgrounds and takes their experiences into account.

Through the DMEP, learners were given the opportunity to apply their knowledge to practical environments. Learners were also encouraged to become creative and active participants in the learning process. Learners should discover how the knowledge can be applied to their particular educational and cultural environment. In this process the facilitator is considered to be a mediator between the learners' entry knowledge and the supposed outcomes of the course.

According to constructivist theory, these outcomes should be monitored through a variety of measurement structures. These measurement structures were used as a formative evaluation system in which the learners' progress was constantly monitored and adapted. In the DMEP, learners are encouraged to evaluate their own progress, take part in performance assessments as well as group assessments. Collaborative learning is therefore facilitated.

Through combining the principles of behaviourism and constructivism the facilitator of the DMEP could create a learning environment that is adaptable to a variety of learner needs and responses.

Although the learners were not made aware of the specifics of the different learning theories, they were asked to comment on the effectiveness of the facilitation of knowledge rather than its memorisation. Their comments are given in Table 5.3.

TABLE 5.3: Learning theory case study answers

<ul style="list-style-type: none"> Through the material you were prompted to understand and apply knowledge rather than remembering it off by heart. How successful was this strategy? <p>1 = Not successful at all 2 = Moderately successful 3 = Successful 4 = Very successful</p>	
African learner	Very successful.
Teacher	Very successful.
Residential learner	Successful.

(Table 5.3 continued)

<ul style="list-style-type: none"> If you chose numbers 1 or 2, could you give a suggestion to improve the understanding of the material? 	
African learner	Not applicable.
Teacher	Not applicable.
Residential learner	Not applicable.

The facilitation of the understanding of knowledge rather than remembering it off by heart was considered to be the preferred learning method for the three case studies. This was achieved by implementing their newly acquired knowledge and skills in their various practices. The next theoretical principle under discussion is the learning experience. Table 5.4 summarises the questions asked.

TABLE 5.4: Questions on the learning experience

Theoretical principle	Literature review	Researcher's experience	Informal questionnaire
Learning experience	<ul style="list-style-type: none"> Why should deep approach learning be encouraged? To what extent should meta-cognitive skills form part of the distance Music Education learning programme? 	<ul style="list-style-type: none"> How was deep approach learning facilitated in the DMEP? 	<ul style="list-style-type: none"> Describe when you studied the material. More than one answer can be selected. Did you study the material: <ul style="list-style-type: none"> 1 = Once off 2 = Per module 3 = Over weekends 4 = During holidays 5 = Whenever you got the chance 6 = I still refer back to it Explain why you studied at this/these particular time(s).

■ Why should deep approach learning be encouraged?

In order to facilitate the most meaningful learning experience, deep and surface approach learning need to be compared. By doing so, the method applicable to the DMEP and its learners can be selected. Table 5.5 highlights the differences between deep and surface approach learning.

TABLE 5.5: Deep approach learning compared with surface approach learning

Deep approach learning	Surface approach learning
Learning is enjoyable.	Learning is a demand to be met.
Learning is meaningful.	Learning is means to an end.
Seeks personal meaning.	Personalised meaning is avoided.
Information experiences are related.	Information experiences are unrelated.
New meaning is formulated.	Information is reproduced.

From Table 5.5 it becomes apparent that the DMEP should aim at facilitating deep approach learning. The deep approach to learning enables learners to take control of and become actively involved in the learning process.

■ To what extent should meta-cognitive skills form part of the distance Music Education learning programme?

The function of meta-cognitive skills is to help learners take control over the learning process. Meta-cognition makes learners aware of the learning process, enabling them to understand the knowledge they are studying. According to the literature review, understanding of the learning process will enable learners to develop their long-term memory. Meta-cognitive skills enable learners to utilise their knowledge through problem-solving and self-questioning exercises.

■ How was deep approach learning facilitated in the DMEP?

The DMEP aimed at involving the principles of deep approach learning through facilitating a variety of learning stimuli and activities in order to make learning enjoyable. To make learning meaningful and personalised, learners were encouraged to apply the information to their cultural and working environment. The outcome was to guide learners in the application of the learned information in various circumstances. New meaning was therefore created.

TABLE 5.6: Learning experience case study answers

<ul style="list-style-type: none"> Describe when you studied the material. More than one answer can be selected. Did you study the material: <p>1 = Once off 2 = Per module 3 = Over weekends 4 = During holidays 5 = Whenever you got the chance 6 = I still refer back to it</p>	
African learner	Per module. I still refer back to it.
Teacher	Whenever I got the chance. I still refer back to it.
Residential learner	Whenever I got the chance.
<ul style="list-style-type: none"> Explain why you studied at this/these particular time(es). 	
African learner	I used it per module because it was designed in such a way that attention be given first to the concepts, skills and theoretical aspects of music before it is implemented. I also refer back to it from time to time as it has since be-come my guide, which I refer to, for topics relevant for my college learners.
Teacher	I would not be able to retain the knowledge if I were to study it all at once. I found it very useful to refer back to the different components and sections, just to re-fresh my mind, as it is impossible to remember everything after reading it through once.
Residential learner	I had to fit my studies into my family life and not neglect my daily chores. I endeavoured to study during the mornings. Afternoon's I'm Mom's taxi.

From their answers it is apparent that the three learners are adult learners with other responsibilities apart from being learners. They prefer to study whenever and as much as their circumstances permit. It was also suggested that the material can be used as a resource for their respective working and/or teaching environments.

The distance education theory questions facilitated under the theoretical principles are given under Table 5.7.

TABLE 5.7: Questions on distance education theory

Theoretical principle	Literature review	Researcher's experience	Informal questionnaire
Distance education theory	<ul style="list-style-type: none"> • What are the principles of industrialisation? • What are the benefits of individualised instruction in a distance education programme? • What are the advantages of two-way communication for the DMEP? 	<ul style="list-style-type: none"> • How can the theory of industrialisation be adapted to the DMEP, having small learner numbers and only one facilitator? • How were the needs of the independent learner met through the DMEP? • How could two-way communication be facilitated in the DMEP? 	<ul style="list-style-type: none"> • How did you benefit from the opportunities to discuss learning related problems with your fellow learners and course presenters?

▪ **What are the principles of industrialisation?**

The theory of industrialisation is used to manage industries involving large numbers.

The management principles include:

- division of labour;
- structuring of mass production;
- automation of the production process; and
- quality control.

In order to manage a large industry these principles should be applied. Instructional designers have discovered that these principles could be successfully applied to the field of instructional design.

▪ **What are the benefits of individualised instruction in a distance education programme?**

The literature review on learning theory and the learning experience highlights the importance of individualised instruction in a distance teaching environment. Through individualised instruction:

- the learning experience is diversified;
- learning generates an experimental process;
- lifelong learning is facilitated; and
- learning becomes personalised.

In a distance education course where the facilitator does not have control over the learning process, individualised instruction is beneficial. The shift of control from the facilitator to the learner enables the distance learner to take responsibility for the learning process. Learning can therefore become personalised and structured according to each individual learner's requirements.

▪ **What are the advantages of two-way communication for the DMEP?**

The lack of contact between learners and the facilitator in the DMEP can result in the learner feeling isolated. In order to monitor and facilitate effective learning, it is imperative that communication structures are put in place. By facilitating effective communication:

- learners are motivated;
- learner problems can be addressed; and
- productive study methods can be facilitated.

The effectiveness of the communication does, however, depend on the choice of media and student support infrastructure that is generated. Learners need to be

able to make contact with the facilitator or tutor whenever the need arises. This will result in the distance learner becoming part of a learning community.

■ **How can the theory of industrialisation be adapted to the DMEP, having small learner numbers and only one facilitator?**

Although the DMEP does not involve large learner numbers, the programme should still involve the setting of standards and quality control. Furthermore the structures for dealing with larger learner numbers and the need for division of labour should be put into place, for future increase in student numbers.

■ **How were the needs of the independent learner met through the DMEP?**

Through evaluation of the learner and learner needs it was decided that the learner should be handled as an individual in the learning process. The design should therefore incorporate the individual learner's needs and should find ways of making the learner experience the learning process as an active participant. In order to stay in line with Curriculum 2005 (South Africa 1997), the learning material was written with lifelong learning in mind. This was achieved by writing the material in a user friendly manner and making it applicable to learners from various age groups, educational and cultural backgrounds.

■ **How could two-way communication be facilitated in the DMEP?**

Communication in the DMEP was facilitated through encouraging learners to become actively involved and take responsibility for their learning. The learner could, thereby, experience the learning process on a more personal level. By asking questions directly from learners and by facilitating answers through the given assignments, two-way communication was encouraged.

Submitted assignments were also returned to learners with some guidelines for improvement and encouragement to try again and resubmit the work. During the contact sessions, learners were also encouraged to ask questions concerning their studies and learning problems.

TABLE 5.8: Distance education theory case study answers

<ul style="list-style-type: none"> How did you benefit from the opportunities to discuss learning related problems with your fellow learners and course presenters? 	
African learner	During the contact sessions, we often held discussions, allowing us to share ideas. This made us realise that there is a need to come together once in a while, to help clarify certain issues - especially those of a practical nature for e.g. movement and instrumental playing.
Teacher	I don't think there were many opportunities for discussing problems with fellow learners. When we were divided into groups, we had to discuss activities, rather than problems.
Residential learner	It gave me more ideas that could be applied. Various alternative teaching methods were also highlighted. The environment dictates the method used, although the environment can be applied to suit the material being taught.

The three learners' experience of the group discussions differs. The residential and African learner felt that the group discussions were a meaningful part of the learning process. They saw the group discussions as an opportunity to share ideas and get to know one another.

The teacher, on the other hand, experienced a need for discussing teaching related problems. She wanted to discuss the problems of her specific environment with fellow teachers in order to resolve them.

In Table 5.9 the questions regarding the choice of a distance education model is given. No questions were asked in the informal questionnaire because learners would not be able to evaluate the effectiveness of these models.

TABLE 5.9: Questions on distance education models

Theoretical principle	Literature review	Researcher's experience	Informal questionnaire
Distance education models	<ul style="list-style-type: none"> Which distance education model(s) should be selected for the DMEP? 	<ul style="list-style-type: none"> How were the selected distance education models applied to the DMEP? 	<ul style="list-style-type: none"> <i>No questions asked.</i>

▪ **Which distance education model should be selected for the DMEP?**

The selection of a distance education model depends to a large extent on the mode of delivery. The delivery mode or media generation specifies how information will be communicated over the distance. Table 5.10 highlights the three generations of distance education and their corresponding delivery modes.

TABLE 5.10: Three generations of distance education

Generation	Delivery mode
First generation	<ul style="list-style-type: none"> Single media. Mostly paper-driven material.
Second generation	<ul style="list-style-type: none"> Multi-media approach. Paper-driven material is used, corresponding to video and audio cassettes.
Third generation	<ul style="list-style-type: none"> Tele-media. Interactive television, telephones, computers and multi-media workstations are introduced.

Apart from the selection of models according to delivery modes, distance education models can also be divided into three basic categories. These categories and their principles are outlined in Table 5.11.

TABLE 5.11: Classification of distance education models

Model	Institution-centred	Person-centred	Society-centred
Application	<ul style="list-style-type: none"> Formal education systems. 	<ul style="list-style-type: none"> Small learner numbers. 	<ul style="list-style-type: none"> Mass education.
Methodology	<ul style="list-style-type: none"> Behavioural approach. 	<ul style="list-style-type: none"> Humanitarian approach. 	<ul style="list-style-type: none"> By rote learning.
Outcome	<ul style="list-style-type: none"> Efficient education systems. 	<ul style="list-style-type: none"> Personalised instruction. 	<ul style="list-style-type: none"> Changes social structure.

In selecting a distance education model, the facilitator should compare the proposed models. By doing so, the model best suited for the DMEP could be selected.

▪ **How were the selected distance education models applied to the DMEP?**

For the purposes of the DMEP, a second generation distance learning programme was selected. The second generation model made it possible for the facilitator to incorporate multi-media structures in the designed programme. The DMEP makes use of a paper-driven package, a video and sound cassette. The result was the selection of a multi-media delivery mode.

It was further decided that a person-centred model should be applied to the DMEP. The person-centred model focuses on the individual learners' experience of the learning process. This model could be easily adapted to the DMEP, seeing that it enabled the learner to determine the learning pace and time of instruction. The person-centred model, focusing on individuals, could then be successfully applied to the DMEP with its small learner numbers.

As with the questions on the selection of a distance education model, no questions were asked of the case studies concerning the selection of an instructional theory. The questions regarding the literature review and researcher's experience are given in Table 5.12.

TABLE 5.12: Questions on instructional design theory

Theoretical principle	Literature review	Researcher's experience	Informal questionnaire
Instructional design theory	<ul style="list-style-type: none"> Which of the four instructional generations best suit the needs of the DMEP? 	<ul style="list-style-type: none"> How could the principles of the instructional design generations be applied to the DMEP? 	<ul style="list-style-type: none"> <i>No questions asked.</i>

▪ **Which of the four instructional generations best suit the needs of the DMEP?**

As with the distance education theory, the selection of an instructional theory should be based on a comparison of the available theories. By comparing the theories, the facilitator could select the one that was most applicable to the DMEP's parameters. Instructional design theory is traditionally divided into four generations. Table 5.13 highlights the key aspects of the four generations of the instructional theories.

TABLE 5.13: Comparison of instructional design theories

Parameter	First generation	Second generation	Third generation	Fourth generation
Methodology	<ul style="list-style-type: none"> Behaviourism. 	<ul style="list-style-type: none"> Behaviourism. 	<ul style="list-style-type: none"> Towards constructivism. 	<ul style="list-style-type: none"> Constructivism.
Procedures	<ul style="list-style-type: none"> Linear sequence. Fragmentation. Passive learning. 	<ul style="list-style-type: none"> Parameter analysis. Integration. 	<ul style="list-style-type: none"> Linear sequence of assessment, design, development and production. 	<ul style="list-style-type: none"> Problem-solving.
Facilitation	<ul style="list-style-type: none"> Not defined 	<ul style="list-style-type: none"> Subject specialist and designer. 	<ul style="list-style-type: none"> Instructional designer. 	<ul style="list-style-type: none"> Subject specialist becomes designer.
Assessment	<ul style="list-style-type: none"> Formative. 	<ul style="list-style-type: none"> Summative. 	<ul style="list-style-type: none"> Feasibility and formative. 	<ul style="list-style-type: none"> Situational.

Table 5.13 illustrates the methodology, procedures, role of the facilitator and assessment criteria for the four generations of instructional design theories. The

facilitator could therefore compare the generations and select the most appropriate parameters from each.

▪ **How could the principles of the instructional design generations be applied to the DMEP?**

A combination of instructional design models was selected for the DMEP. By incorporating various aspects of different models, the facilitator could design a programme that was custom-made for the DMEP. It is important to note that all aspects of the generations listed were not incorporated. Only those components aiding the DMEP were selected. A discussion of the selected principles will follow:

• **First generation**

From first generation instructional design the model of action research incorporating formative evaluation was taken. The division of learning material in manageable learning structures was also selected.

• **Second generation**

The pedagogical prescriptions as listed in second generation instructional design were adapted to:

- establish learning outcomes;
- analyse the target population;
- review the learning content; and
- integrate the knowledge and skills associated with the learning process.

The analysis of the various parameters of the DMEP enabled the facilitator to design learning for each individual learner.

• **Third generation**

For the purposes of the DMEP, the third generation instructional design model was not made use of. This is mostly due to the fact that in the third generation the instructional design is handled by a qualified instructional designer. The subject specialist therefore does not form part of the design process.

- **Fourth generation**

The problem-solving procedure or fourth generation instructional design was also selected. According to the fourth generation, the subject specialist can become the instructional designer. This enabled the researcher to design and develop a programme that could facilitate the practical components of Music Education.

The five domains of the instructional design process - analysis, design, production, implementation and maintenance - were also applied to the DMEP. This enabled the subject specialist to design each phase of the programme according to the selected instructional model as tabulated in Table 5.14. After an instructional theory or combination of theories were chosen the instructional designer should decide on the instructional model to incorporate in the design.

TABLE 5.14: Questions on instructional design models

Theoretical principles	Literature review	Researcher's experience	Informal questionnaire
Instructional design models	<ul style="list-style-type: none"> • What is the value of the systems approach model to the DMEP? 	<ul style="list-style-type: none"> • How could the systems approach be applied to the DMEP? 	<ul style="list-style-type: none"> • <i>No questions asked.</i>

- **What is the value of the systems approach model to the DMEP?**

The purpose of instructional design models is to facilitate quality instructional design. Through the systems approach, the design sequence of instructional practice is highlighted. The sequence comprises:

- analysis;
- design;
- development;
- implementation; and the
- maintenance cycle.

The systems approach is considered to be a cyclic approach. Any stage of the design sequence can therefore re-occur throughout the design process. Two quality assurance structures are built into the systems approach, namely formative and summative evaluation. The formative evaluation assesses the programme whilst it is being designed. Summative evaluation, on the other hand, is used to assess the completed programme. After both these assessments, the necessary changes can be made or maintenance can be done to the designed programme. This enables the instructional designer to facilitate an effective learning process.

■ **How could the systems approach be applied to the DMEP?**

The systems approach highlights the design structure of the instructional design process. This enabled the researcher, who is a novice instructional designer, to design a structured learning programme based on the principles and techniques of instructional design theory. The five phases of the systems approach could easily be incorporated in this study as the systems approach is similar to the phases of the action research model used in this research. After the design was completed and the necessary problems identified, the cycle was repeated. This process was reiterated until the facilitator was satisfied with the programme's outcomes.

The learners' opinions concerning the design process were not asked, due to a lack of background knowledge on their part. The evaluation of the instructional design process leads us to the manifestation of the design principles.

5.2 DESIGN PRINCIPLES

Although the design procedure was extensively explained in Chapter 3, the aim of this chapter is to highlight the most important principles concerning the design of the DMEP. Therefore some duplication of facts may occur. It is, however, necessary to state these principles once again in order to determine if the design was indeed successful. Table 5.15 summarises the questions asked regarding the distance learner.

TABLE 5.15: Questions on the distance learner

Design principles	Literature review	Researcher's experience	Informal questionnaire
The distance learner	<ul style="list-style-type: none"> • What are the principles of individualised instruction? • What choices should learners be given regarding content, methods used and materials? 	<ul style="list-style-type: none"> • How was the material structured to suit the individual learners' learning requirements? 	<ul style="list-style-type: none"> • What were your learning expectations of this course? • To what extent were your learning expectations addressed through the learning material? <p>1 = Not at all 2 = Satisfactory 3 = I got more than I bargained for</p> <ul style="list-style-type: none"> • What would you like to be added to the learning material?

■ **What are the principles of individualised instruction?**

In distance education, the learner has little contact with the facilitator and fellow learners. This may result in the learner feeling isolated. When designing material for distance education purposes, the instructional designer should regard the learners as individuals in the learning process, each experiencing the learning process differently. According to the literature review, four questions regarding individualised instruction should be asked when a distance education course is being designed. These questions and their answers will be given in Table 5.16.

TABLE 5.16: Individualised instruction

QUESTIONS	ANSWERS
<ul style="list-style-type: none"> • What is to be individualised? 	<ul style="list-style-type: none"> • Study pace. • Study time. • Media selection. • Learning methods. • Alternative and supplementary learning materials. • Learning outcomes.
<ul style="list-style-type: none"> • When does individualisation take place? 	<ul style="list-style-type: none"> • Throughout the learning process.
<ul style="list-style-type: none"> • Who decides? 	<p>The decision may be made by either of or a combination of the following role players:</p> <ul style="list-style-type: none"> • learner in choosing a course. • facilitator prescribing individual learning outcomes. • system's design based on the principles of individualised instruction.
<ul style="list-style-type: none"> • How does the system adapt to the individual? 	<p>The system adapts through the:</p> <ul style="list-style-type: none"> • style and format of the material. • media. • evaluation structures. • facilitator and tutor. • management systems.

The instructional principles concerning the manner in which the system is adaptable to the individual's needs are not clearly explained through the table. According to the literature review, the instructional designer should incorporate the following aspects, as highlighted in Table 5.17, in order for instruction to be individualised. The left column indicates the design factor whilst the right column lists the corresponding design principles.

TABLE 5.17: Design principles of individualised instruction

DESIGN FACTORS	DESIGN PRINCIPLES
Style and format of the material	<ul style="list-style-type: none"> • Write in user friendly manner. • Use short sentences and paragraphs to facilitate better understanding. • Divide the content into manageable modules. • Encourage learners to plan and pace their learning.
Media	<p>The media selected should</p> <ul style="list-style-type: none"> • be consistent between modules; • communicate information successfully; • be available to all learners; • interact with the learning process; and should • enhance the learning process.
Evaluation structures	<ul style="list-style-type: none"> • Learner takes control. • Facilitation of self-assessment activities. • Guidance structures.
Management systems	<p>Management is based on the theory of industrialisation and includes the handling of</p> <ul style="list-style-type: none"> • mission statement; • budget; • goals and objectives; • resources; • design process; and the • evaluation of the programme.

■ **What choices should learners be given regarding content, methods used and materials?**

In order for learning to be completely individualised, learners should be given the opportunity to decide what, how and through which delivery mode they would like to study. Each learner can then structure the learning process to suit his/her standard, background and access to delivery modes.

■ **How was the material structured to suit the individual learners' learning requirements?**

This question will be answered by taking the answers to the questions on *what* is to be individualised, *when* the material is to be individualised, and *who* decides as reference.

● **What is to be individualised?**

- **Pace and time of study:** Seeing that the material is studied at a distance, the learners can decide on the pace, time and method of studying. By alternating learning with activities, the learning experience was diversified. Learning was facilitated through the type of assignments that were given in the DMEP. This was done by encouraging learners to become active participants in the learning process and to apply their knowledge to their specific working and/or teaching environments.
- **Media selection:** The DMEP is presented through a number of delivery systems. The bulk of the programme is presented as a paper-driven package which is supported by a video and audio cassette. In order to study with the programme, learners need to have access to a video machine and audio player. The diversity of learners enrolled in the DMEP should be taken into consideration when selecting a delivery system. The facilitator should select a delivery mode that is accessible to all enrolled learners of the DMEP.
- **Method of learning:** The various educational and cultural backgrounds of the learners were taken into consideration when learning was facilitated. The researcher had to bear in mind what the different learner groups might need. The material had to be compiled so that the teachers, learners from other cultures and learners continuing their studies all found the material stimulating and interesting. Deep approach learning was therefore encouraged through facilitating active involvement in the learning process. Learners thus had to take responsibility for their own progress and personalise the learning experience. This was achieved by incorporating various activities, learning theories and stimulating learners to apply the learning material to their unique teaching and working environments.
- **Choice of alternative and supplementary material:** Although supplementary material was given with the DMEP, learners were also encouraged to consult any

of the books mentioned in the bibliography as well as topic related books from libraries or any other sources. Learners were therefore encouraged to do further reading on the aspects they were interested in or wanted more information on.

- **Learning outcomes:** General learning outcomes were formulated for the DMEP. The learning outcomes were stated so as to guide the learner in the purpose of the learning process. By reading the learning outcomes, learners were told what they should be able to do by the end of the learning process. The learning outcomes are therefore not compiled with specific learners in mind. In the DMEP, learners are asked whether they have reached the proposed outcomes. If not, they are referred back to the material in order to ensure that they gain the necessary information. Learners are thereby encouraged to control and manage their own learning process.

- **When does individualisation take place?**

Throughout the design of the DMEP, the facilitator aimed at structuring the material to suit the needs of the individual learners.

- **Who decides?**

- **The learner:** The BMus Honours course for which the DMEP was compiled consists of three prescribed subjects, a dissertation and one subject of the learners' own choice from a list of available subjects. Learners are given choices regarding the overall composition of their course, but no choices are given regarding the content of the DMEP. Because the material is partly used as an introduction to the course, all modules are compulsory. This can to some extent ensure that the learners all have the same background knowledge before continuing with the material.
- **The facilitator:** Most of the design decisions for individualisation were made by the facilitator. These decisions include the aspects mentioned under what is to be individualised.
- **The course:** Through all of the above methods the course was adapted so as to suit the learning needs of the individual learner. The facilitator had to revise the DMEP through the formative learning process in order to design the material to be adaptable to the needs of each individual learner.

- **How does the system adapt to the individual?**
- **Style and format of the material:** The DMEP was written in a user friendly and informal style. The material thereby attempted to make learners experience the information as if they were being taught personally. In the preface to the DMEP, learners are welcomed to the course and guided through the use of the DMEP. It is suggested that learners follow the sequence of modules, numerically. Learners are not given the opportunity to decide on the format of their specific individual learning programmes.
- **Evaluation structures:** The evaluation structures employed in the DMEP are based on the principles of assessment of Curriculum 2005 (South Africa 1997). A variety of evaluation structures are therefore employed. Learners are encouraged to evaluate themselves by using the suggested answers at the back of the DMEP. Evaluation is therefore done on a continuous basis. During the contact sessions, learners were encouraged to apply the information they studied in practical presentations. In these presentations group and peer evaluation was encouraged. It was mostly in these presentations and through written assignments that the facilitator got to assess the standard of learners' work and understanding. Continuous evaluation was further encouraged by giving learners regular feedback and affording them the opportunity to improve on their mistakes. Evaluation is therefore, mostly, not a one off experience.
- **Management systems:** In order for the design to be successful, the design process and product design should be managed. According to the theory of industrialisation, the work load should be divided between various people involved in the design process. The management of the design process can therefore be done by someone other than the facilitator. In the DMEP the facilitator was responsible for the design and management of the programme, excluding the budget. The financial aspects were managed by personnel within the department. The control of the design and management by one person is not necessarily good practice. It is better to divide the work amongst a number of lecturers in order to ensure a successful and quality assured end product.

The selection of media and role of the facilitator and tutor will be discussed further on in this chapter.

TABLE 5.18: Distance learner case study answers

<ul style="list-style-type: none"> • What were your learning expectations of this course? 	
African learner	I wanted to apply the information to the teaching of children who are still inexperienced as well as for teachers who must achieve the realisation of the importance of Music Education in the school curriculum.
Teacher	I wanted to learn skills, concepts and other information which enable me to become a better teacher. I would also like to see some information regarding concert and classroom etiquette included in the learning programme.
Residential learner	I hoped to broaden my horizons to give greater flexibility in the presentation of material, thereby enhancing the learning experience. One needs to be able to apply what is taught.
<ul style="list-style-type: none"> • To what extent were your learning expectations addressed through the learning material? <p>1 = Not at all 2 = Satisfactorily 3 = I got more than I bargained for</p>	
African learner	Satisfactorily.
Teacher	Satisfactorily.
Residential learner	I got more than I bargained for.
<ul style="list-style-type: none"> • What would you like to be added to the learning material? 	
African learner	Some more culturally related music experiences and examples should be added. There seems still to be a lot of emphasis on the Western traditional music and methods of teaching and experiencing music. More examples of the musics of Africa should be incorporated and facilitated. This could include more South African music examples and songs in South African languages. The concepts of music would also be better described if some illustrations were added and not just definitions given.

(Table 5.18 continued)

Teacher	It would be a little more interesting if more pictures could be used. Sometimes it would make it easier to read through quickly if more information was written in point form.
Residential learner	A module using the latest technology and how to overcome failures in modern technology.

All three learners wanted to increase their skills and abilities as music educators. From the case studies' answers, it is apparent that the provided material did sufficiently address the learners' expectations. It was, however, suggested that the following aspects be added:

- information regarding the latest technological developments;
- a module on classroom and concert etiquette; as well
- examples and information on the various cultures in South Africa.

Both the African learner and teacher felt that more use could be made of graphics and bulleted summaries in order to make the material more accessible.

Table 5.19 highlights the factors regarding the role of the instructional designer in the design process. No case study evaluation was expected, seeing that the learners have no knowledge concerning the tasks of the instructional designer.

TABLE 5.19: Questions on the instructional designer

Design principles	Literature review	Researcher's experience	Informal questionnaire
The instructional designer	<ul style="list-style-type: none"> • What are the tasks of an instructional designer ? 	<ul style="list-style-type: none"> • What does the task of facilitation entail in the DMEP? 	<ul style="list-style-type: none"> • <i>No questions asked.</i>

■ What are the tasks of an instructional designer?

Often, in practice, the instructional designer and the subject specialist are the same person. The main function of the instructional designer is to facilitate effective learning. The instructional designer should:

- facilitate the requirements of all distance education learners;
- write topic outlines;
- formulate outcomes;
- design activities and provide feedback in the text;
- handle course administration issues;
- serve as a content resource for learners;
- make use of a variety of instructional techniques;
- employ the resources necessary for achieving personal goals;
- stimulate and motivate learners; and
- evaluate learner progress.

■ What does the task of facilitation entail in the DMEP?

In the DMEP, the subject specialist became the instructional designer. The subject specialist was also the only person involved in the design of the programme. It was therefore the duty of the subject specialist to facilitate effective learning according to instructional design practice. Apart from the facilitation of effective learning, the subject specialist also had to administer and manage the programme as well as motivate and encourage learners.

For a first time designer, who in principle is a subject specialist, it is suggested that there should be a support structure to help in the process. Being both a subject specialist and designer can be difficult, seeing that the specialist might have other work to do apart from the design of the programme. This can result in the design and development of the learning material taking longer than otherwise necessary.

Administrative problems may also arise where large learner numbers are involved in the learning process. It will then not be possible for the subject specialist to design the programme, manage, support and handle administrative efforts.

As far as the DMEP is concerned, the subject specialist could handle all the aspects of the instructional design process as only a small number of learners are currently enrolled. Support given by colleagues during the three contact sessions helped the facilitator with the management and administrative aspects of the DMEP. If the course were, however, only presented over a distance, support services would need to be put into place.

Although learners were not able to evaluate the effectiveness of the instructional designer, they could assess the success of the facilitation of a learning theory. This was achieved through the questions listed in Table 5.20.

TABLE 5.20: Questions on learning theory in relation to design

Design principles	Literature review	Researcher's experience	Informal questionnaire
Learning theory in relation to design	<ul style="list-style-type: none"> • What study methods should be introduced and facilitated in the DMEP? 	<ul style="list-style-type: none"> • How could appropriate study methods be introduced and facilitated? 	<ul style="list-style-type: none"> • How meaningful was the sequence of the learning material? Would you like the order of the modules to: <ul style="list-style-type: none"> 1 = Change? 2 = Be left unchanged? 3 = Be selected by yourself? • If you want the order to change - what do you suggest? • If you want to structure your own order - what would the sequence be?

(Table 5.20 continued)

Design principles	Literature review	Researcher's experience	Informal questionnaire
Learning theory in relation to design			<ul style="list-style-type: none"> • Which aspects did not challenge you? • Which aspects did you find appropriately challenging?

■ **What study methods should be introduced and facilitated in the DMEP?**

In order for successful learning to take place, learners should be encouraged to take control over the learning process. This will motivate the distance learner to ensure that learning does, in fact, take place. Active involvement in the learning process is also very important. Through the facilitated activities, learners were given the opportunity to practise the skills involved in Music Education as well as apply the newly acquired knowledge to their working and/or teaching environments.

■ **How could appropriate study methods be introduced and facilitated?**

To help structure the learning process, learners were encouraged to meet the suggested learning outcomes. This was done through systematically working through the modules. In the preface to the DMEP, learners were encouraged to ensure that they reach the learning outcomes before they continue with a next module. Learners were also encouraged to study with a pen in hand to make notes or to write down questions. The facilitator could answer these questions at a later stage.

TABLE 5.21: Learning theory case study answers

<ul style="list-style-type: none"> How meaningful was the sequence of the learning material? Would you like the order of the modules to: <ul style="list-style-type: none"> 1 = Change? 2 = Be left unchanged? 3 = Be selected by yourself? 	
African learner	Be left unchanged.
Teacher	Be left unchanged.
Residential learner	Be left unchanged.
<ul style="list-style-type: none"> If you want the order to change - what do you suggest? 	
African learner	Not applicable.
Teacher	Not applicable.
Residential learner	The material was presented in such a way that it kept me 'happy' and 'satisfied' - most accommodating.
<ul style="list-style-type: none"> If you want to structure your own order - what would the sequence be? 	
African learner	Not applicable.
Teacher	Not applicable.
Residential learner	Insert lectures on the use of modern technology - right in the beginning. Also include some materials on how to overcome downfalls.
<ul style="list-style-type: none"> Which aspects did not challenge you? 	
African learner	Not applicable.
Teacher	Not applicable.
Residential learner	Not applicable.

(Table 5.21 continued)

<ul style="list-style-type: none"> Which aspects did you find appropriately challenging? 	
African learner	Aspects such as skills and concepts were not new to me. I did enjoy the emphasis on the practical application of them. I was impressed by the modules on media and presentation as well as the one on successful planning. They really helped to get one organised for lessons and presentations. I was very interested in the material on Curriculum 2005 - I felt I needed some information on this topic.
Teacher	I cannot say I found it challenging, but I still learned a lot and my memory was jogged.
Residential learner	The group work.

The learners were satisfied with the sequence of the learning material. Although the information was not necessarily new to them, they found that it was meaningfully presented and that it could be applied to their working and/or teaching environment.

After learners were asked to evaluate the complexity of the learning material, questions regarding course content were asked in Table 5.22.

TABLE 5.22: Questions on course content

Design principles	Literature review	Researcher's experience	Informal questionnaire
Course content	<ul style="list-style-type: none"> What are the principles of successful design? 	<ul style="list-style-type: none"> Reviewed in Chapter 3. 	<ul style="list-style-type: none"> How successful was the use of icons in the locating of the:

(Table 5.22 continued)

Course content			<ul style="list-style-type: none"> - Practical assignments - Summaries of important information - Learning outcomes <p>1 = Could not locate them 2 = Had some trouble in finding them 3 = Found them easily</p> <ul style="list-style-type: none"> • How successful was the explanation of the didactic methods involved in the teaching and presentation of the following skills <ul style="list-style-type: none"> - Listening - Movement - Playing on instruments - Singing - Being creative - Reading notation? <p>1 = I did not understand how I should present the skill 2 = It could be described by incorporating more examples 3 = I understood it clearly 4 = I found that I was already familiar with the methodology</p>
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■ **What are the principles of successful design?**

The aim of this chapter is to determine what the principles of successful design in practice entail. The literature states the following broad principles of successful design:

- clearly stated learning outcomes;
- meaningful structure and layout of learning material;
- icons guiding the learner through the use of the learning material;
- facilitation of self-assessment questions and activities;
- regular feedback on assessment;
- reader friendly tone and style of text;
- use of graphics, illustrations and diagrams to explain difficult concepts; and
- stating of assessment criteria.

TABLE 5.23: Content of course case study answers

<ul style="list-style-type: none"> • How successful was the use of icons in the locating of the <ul style="list-style-type: none"> – Practical assignments – Summaries of important information – Learning outcomes? <p>1 = Could not locate them 2 = Had some trouble in finding them 3 = Found them easily?</p>	
African learner	<p>Practical assignments: Found them easily.</p> <p>Summaries of important information: Found them easily.</p> <p>Learning outcomes: Found them easily.</p>
Teacher	<p>Practical assignments: Found them easily.</p> <p>Summaries of important information: Found them easily.</p> <p>Learning outcomes: Found them easily.</p>
Residential learner	<p>Practical assignments: Had some trouble in finding them - they were of minimum value.</p> <p>Summaries of important information: Found them easily - informative and most beneficial.</p> <p>Learning outcomes: Found them easily.</p>

(Table 5.23 continued)

<ul style="list-style-type: none"> • How successful was the explanation of the didactic methods involved in the teaching and presentation of the following skills <ul style="list-style-type: none"> – Listening – Movement – Playing on instruments – Singing – Being creative – Reading notation? <p>1 = I did not understand how I should present the skill. 2 = It could be described by incorporating more examples. 3 = I understood it clearly. 4 = I found that I was already familiar with the methodology.</p>	
African learner	<p>Listening: I understood it clearly.</p> <p>Movement: I found that I was already familiar with the methodology.</p> <p>Playing on instruments: I understood it clearly.</p> <p>Singing: I understood it clearly.</p> <p>Being creative: I understood it clearly.</p> <p>Reading notation: It could be described by incorporating more examples.</p>
Teacher	<p>Listening: I understood it clearly.</p> <p>Movement: It could be described by incorporating more examples.</p> <p>Playing on instruments: It could be described by incorporating more examples.</p> <p>Singing: I understood it clearly.</p> <p>Being creative: It could be described by incorporating more examples. Where creativity was presented in the contact session, it was not quite clear what was expected of us. More emphasis can be placed on the disciplinary measures that a teacher needs to incorporate when creativity is developed in class.</p>

(Table 5.23 continued)

Teacher	<p>Reading notation: It could be described by incorporating more examples - we should be given more opportunities to apply the various notation systems in order to become literate in the reading and application of staff, solfa and graphic notation.</p>
Residential learner	<p>Listening: I found that I was already familiar with the methodology.</p> <p>Movement: I understood it all clearly. The presentation and structuring of movement activities could, however, be described in more detail.</p> <p>Playing on instruments: I found that I was already familiar with the methodology.</p> <p>Singing: I understood it clearly.</p> <p>Being creative: I understood it clearly. More information could, however, be given concerning the facilitation of creativity in the teaching environment.</p> <p>Reading notation: I found that I was already familiar with the methodology</p>

In general the icons were considered easy to locate. The residential learner did, however, indicate that the icon used for the practical assignment, the pencil, was of very little value to her.

The three case studies experienced the facilitation of the practical skills as being sufficient. More information and detail could, however, be included for movement, creativity and the reading and writing of notation. It was also suggested that the application of these three skills in practice should be given more attention.

5.3 MOTIVATIONAL PRINCIPLES

Motivation forms an integral part of the distance learning programme. In order to facilitate active learning, the designer should incorporate various motivational aspects into the programme.

TABLE 5.24: Questions on motivational structures

Motivational principles	Literature review	Researcher's experience	Informal questionnaire
Motivational structures	<ul style="list-style-type: none"> Which motivational structures should be incorporated in the DMEP? 	<ul style="list-style-type: none"> How were the selected motivational structures incorporated in the DMEP? 	<ul style="list-style-type: none"> To what extent did the DMEP motivate you in your studies? <p>1 = I found the material boring 2 = It was moderately stimulating 3 = I liked learning with this material 4 = Learning becomes a fun experience</p> <ul style="list-style-type: none"> Did the learning material motivate you to apply it in your work and community? <p>1 = yes 2 = no</p> <p>If your answer was yes, describe how you could apply the material to your work and community involvement.</p>

■ **Which motivational structures should be incorporated in the DMEP?**

The instructional designer should incorporate a number of motivational aspects to keep the distance learner motivated and focused on the learning process. Keller's (1983:396) motivational model suggests that the motivation of learners should incorporate the following four categories. Table 5.25 explains these categories and their corresponding outcomes:

TABLE 5.25: Four motivational categories and their corresponding outcomes

Motivational model	Outcomes
<ul style="list-style-type: none"> • Interest 	<ul style="list-style-type: none"> • Interest is aroused and sustained. • Curiosity and attention are facilitated.
<ul style="list-style-type: none"> • Relevance 	<ul style="list-style-type: none"> • All learning becomes connected to important needs and motivations.
<ul style="list-style-type: none"> • Expectancy 	<ul style="list-style-type: none"> • Confidence is developed through success.
<ul style="list-style-type: none"> • Satisfaction 	<ul style="list-style-type: none"> • Learners become satisfied with the goals that they have reached.

In order to motivate learners, the instructional designer should ensure that learning:

- involves action;
- is fun;
- choices can be made;
- facilitates social interaction;
- is supported by continuous measurement and feedback;
- is challenging; and that learning
- recognises learners' efforts and progress.

These factors should be incorporated in order for learners to be motivated towards their learning experience.

▪ **How were the selected motivational structures incorporated in the DMEP?**

The motivational factors listed under the motivational model were included as follows:

- **Fun:** By involving diverse learning activities, the facilitator aimed at making the learning process enjoyable. Where possible, learners were asked to personalise the information and apply it to a situation of their choice. Learners were for instance asked to compile a top ten list of their favourite music. After compiling the list, learners were then guided to discover what the value of that music to their teaching can be.

- **Social interaction:** The wide spectrum from which the learners came, made group work difficult. Many learners come from remote parts of South Africa and neighbouring countries. Regular social interaction amongst learners was therefore not always possible. To compensate, the learners were given group assignments when attending the contact sessions. They were also encouraged to learn from one another and to help each other with their academic problems.
- **Feedback:** Positive feedback and tips on improvement were given for each written and practical assignment. Learners were thus encouraged to better their didactic skills and improve their written work.
- **Challenge:** The outcomes of the course are of diverse difficulty. Provision was made for learners of different backgrounds and levels of learning. The aim was, however, that all learners should be on the same academic level by the end of the course. Learners were further challenged to gain additional experience and to complete supplementary assignments if interested in particular subjects.
- **Recognition:** After writing reports on their assignments, learners were congratulated and given recognition for their efforts. When a learner submitted or performed an exceptional or interesting assignment, he/she was asked to share it with the rest of the class. By doing so, learners came to respect and learn from one another.

TABLE 5.26: Motivational structures questionnaire answers

<ul style="list-style-type: none"> • To what extent did the DMEP motivate you in your studies? <p>1 = I found the material boring 2 = It was moderately stimulating 3 = I liked learning with this material 4 = Learning becomes a fun experience</p>	
African learner	I liked learning with this material.
Teacher	I liked learning with this material - but it could be more stimulating and 'less' academic in nature.
Residential learner	I liked learning with this material.

(Table 5.26 continued)

<ul style="list-style-type: none"> • Did the learning material motivate you to apply it in your work and community? <p>1 = yes 2 = no</p>	
African learner	Yes.
Teacher	Yes.
Residential learner	Yes.
<ul style="list-style-type: none"> • If your answer was yes, describe how you could apply the material to your work and community involvement? 	
African learner	I use the material when I prepare for my learners or conduct a workshop. This I did at several occasions at the College.
Teacher	If I were to use any of the skills or concepts, I could check to see whether I am on the right track. I could also try a different method, so that the pupils will be stimulated in a different way.
Residential learner	I could apply the singing material and guidelines successfully with a group of children at a Youth meeting as well as with a Sunday School Choir.

Although the material was considered to be stimulating, the teacher felt that more pictures and graphics could be added to make the programme less academic. The residential learner and African learner, on the other hand, felt the graphics used were sufficient. The material could also be used by all three case studies in their personal circumstances, either as a reference or for preparation.

TABLE 5.27: Questions on student support services

Motivational principles	Literature review	Researcher's experience	Informal questionnaire
<p>Student support services</p>	<ul style="list-style-type: none"> Which student support services should be employed in the DMEP? 	<ul style="list-style-type: none"> How were the student support services introduced to the DMEP? 	<ul style="list-style-type: none"> To what extent did you make use of the following student support services when you experienced study related problems: <ul style="list-style-type: none"> A study group consisting of learners that meet occasionally or consult on the phone. A tutor Your lecturers? <p>1 = I did not know of such a support system 2 = Occasionally 3 = Often 4 = Very often 5 = This should be encouraged and implemented</p>

▪ **Which student support services should be employed in the DMEP?**

Most motivational structures can be linked to student support services. The function of the student support services is to help the facilitator in the guidance and motivation of learners through the learning process. The services give the learners the opportunity to discuss problems and make contact with fellow learners. The most commonly used motivational structures are tutors and collaborative learning experiences. Table 5.28 summarises the outcomes of these motivational structures.

TABLE 5.28: Outcomes of motivational structures

Tutors	Collaborative learning
<ul style="list-style-type: none"> • Mediation between the facilitator and learners. 	<ul style="list-style-type: none"> • Learners come together as study circles to analyse and discuss material.
<ul style="list-style-type: none"> • Motivation of learners. 	<ul style="list-style-type: none"> • In group academic tutorials a group of learners meet with tutors to discuss problems.
<ul style="list-style-type: none"> • Keeping of student records. 	<ul style="list-style-type: none"> • With didactic groups, learners get to apply their knowledge in the working environment.
<ul style="list-style-type: none"> • Answering administrative questions. 	<ul style="list-style-type: none"> • Increased and effective two-way communication.
<ul style="list-style-type: none"> • Evaluating course effectiveness. 	<ul style="list-style-type: none"> • Learner no longer feels isolated.
<ul style="list-style-type: none"> • Assignment and test grading. 	<ul style="list-style-type: none"> • Peer assessment.

■ **How were the student support services introduced to the DMEP?**

- **Tutors:** Tutors have not yet been identified for the DMEP. All learner questions are directed towards the course presenters via telephone, fax, e-mail or personal interviews. Learners were also given time to make appointments with lecturers during the three contact sessions per year. The facilitators could then answer the learners' questions. The result was that learners had to wait for some time before they could have answers to their questions. Assignments were therefore either done incorrectly or not handed in.
- **Collaborative learning experiences:** No formal collaborative learning structures have been organised for the DMEP. Learners tend to group themselves together as far as demographics, interest and educational background is concerned. In the three contact sessions per year, collaborative learning was used. Learners were often divided into groups to complete assignments and to solve problems. Learners should, however, be encouraged to form collaborative groups outside the classroom to motivate and guide one another between the contact sessions.

TABLE 5.29: Student support services case study answers

<ul style="list-style-type: none"> • To what extent did you make use of the following student support services when you experienced study related problems? – A study group consisting of learners that meet occasionally or consult on the phone? – A tutor? – Your lecturers? <p>1 = I did not know of such a support system 2 = Occasionally 3 = Often 4 = Very often 5 = This should be encouraged and implemented</p>	
African learner	<p>A study group consisting of learners that meet occasionally or consult on the phone? I did not know of such a support system.</p> <p>A tutor? This should be encouraged and implemented.</p> <p>Your lecturers? Very often.</p>
Teacher	<p>A study group consisting of learners that meet occasionally or consult on the phone? This should be encouraged and implemented.</p> <p>A tutor? This should be encouraged and implemented.</p> <p>Your lecturers? Occasionally.</p>
Residential learner	<p>A study group consisting of learners that meet occasionally or consult on the phone? I did not know of such a support system. This should be encouraged and implemented.</p> <p>A tutor? This could be encouraged and implemented.</p> <p>Your lecturers? Often - mainly to see if I was on the right track.</p>

The need for support services in the form of learners and tutors was mentioned by all three case studies. It also became apparent that the lecturers, apart from doing their other duties, are the only support service in place. This problem should be addressed and better managed. Assessment formed a vital part in the design process

for determining the success of the DMEP. In Table 5.30 the success of the evaluation structures of the DMEP were determined.

TABLE 5.30: Questions on assessment

Motivational principles	Literature review	Researcher's experience	Informal questionnaire
Assessment	<ul style="list-style-type: none"> • Has already been discussed under the distance learner. 	<ul style="list-style-type: none"> • Has already been discussed under the distance learner. 	<ul style="list-style-type: none"> • How did you experience each of the following methods of assessment? Refer in your answer to the feedback given, answers at the back of the book and the effectiveness of this type of assessment. <ul style="list-style-type: none"> – Practical presentations – Group discussions – Written assignments – Group assessment <p>1 = were not used 2 = did not find it useful 3 = useful 4 = I learned a lot.</p>

Seeing that the literature and researcher's aspects of assessment have already been discussed, the focus will be on the three case studies' experience of the assessment activities.

TABLE 5.31: Assessment case study answers

<ul style="list-style-type: none"> • How did you experience each of the following methods of assessment? Refer in your answer to the feedback given, answers at the back of the book and the effectiveness of this type of assessment. <ul style="list-style-type: none"> – Practical presentations – Group discussions – Written assignments – Group assessment <p>1 = were not used 2 = did not find it useful 3 = useful 4 = I learned a lot</p>	
<p>African learner</p>	<p>Practical presentations: They served as a good springboard for a better and clearer evaluation of oneself. It also gave the opportunity to participate, and better our skills - particularly those of us who are teaching music at our schools. Effectiveness - I learned a lot.</p> <p>Group discussions: These discussions are sometimes boring. Particularly because a lot of members (learners) have very little knowledge concerning the practical aspects and history of Western music traditions. These learners cannot be actively involved in the group discussions so one person has to take the lead and provide all the answers. Effectiveness - Did not find them useful.</p> <p>Written assignments: I found the topics for assignments interesting and well selected. They force us to keep up to date with the latest trends and books available on related topics. By completing these assignments, one has a resource book of one's own that could be used as an additional reference when teaching. Effectiveness - I learned a lot.</p> <p>Group assessment: This was not always a successful method of assessment - particularly if your group is not committed to the discussion or knowledgeable about the content discussed. Effectiveness - did not find it useful.</p>

(Table 5.31 continued)

<p>Teacher</p>	<p>Practical presentations: There was not enough discussion and transparency about results. I want to know from my lecturers how I have done and how I can improve my marks. Although my marks are good, I am still not satisfied because I feel that one can always improve. It would be a good experience to sometimes evaluate our fellow learners, so that we can learn from the exercise. I often wonder whether there is a big enough difference between the marks of presentations which are weak and the good presentations. This is a de-motivating factor! In some fields of study at this University marks reflect the input - but I'm not always sure that it happens in the Music Department. The feedback should therefore not congratulate you on your efforts but should guide you to improve yourself and your presentation. And good work should be rewarded with good marks. Effectiveness - useful.</p> <p>Group discussions: I don't always enjoy these as it is usually only aimed at providing knowledge (answering the given questions), and not discussing practical problems. We should be given the opportunity to discuss the problems that we experience in our classrooms. We can then share our knowledge and experience. Effectiveness - did not find it useful.</p> <p>Written assignments: As in the practical demonstrations, there is too little difference between good and weak assignments. If student X hands in a shoddy assignment and gets 60%, I feel it is unfair if student M gets only 10 % more for a well composed assignment. More feedback should also be given on how to improve, so that those of us who want to improve, get the opportunity to get high marks. Effectiveness - useful.</p> <p>Group assessment: I do not remember doing any group assessment. Effectiveness - were not used.</p>
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(Table 5.31 continued)

Residential learner	<p>Practical presentations: It is good to see how one features within the class in order to get some idea of progress made. Effectiveness - I learned a lot.</p> <p>Group discussions: It gave insight into problems experienced by others and indicated ways in which to overcome their obstacles. Effectiveness - useful.</p> <p>Written assignments: I learned an enormous amount in the execution of these, as vast amounts of research had to be conducted. I found that the library was well utilised. Effectiveness - I learned a lot.</p> <p>Group assessment: Although formal group assessment was not facilitated, I did learn a lot from my fellow learners as we were always stimulating one another. Effectiveness - useful</p>
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- The **practical presentations** enabled learners to become actively involved in the learning process and thereby their presentation skills could be developed. Presenting a skill in front of the other learners gave the learners the opportunity to measure themselves according to the standards set by the other learners. It was, however, felt that not enough transparency regarding the marks and suggestions for improvement were given.
- Because of the varying knowledge of learners it often happens that one learner takes control over and is responsible for the **group discussions**. Interaction amongst learners and the sharing of ideas are therefore not facilitated. It was also noted that more emphasis would be placed upon problem-solving than the answering of questions posed by the lecturers. The residential learner did, however, express that problems were addressed and ideas shared.
- Through the case studies the deduction could be made that the **written assignments** were well formulated and prompted them to do extensive research on the given topics. When the assignments were then successfully completed, learners could use them as additional resources for their teaching. Meaningful feedback should once again be given regarding the attainment of good marks.

- Very little structured **group assessment** activities were facilitated. As with the group discussions, the group assessment could only be meaningful if all group members contributed to the activity.

5.4 TECHNOLOGICAL PRINCIPLES

The success of a designed programme depends to a large extent on the selection of an adequate delivery mode. The delivery mode should be accessible to all learners and should enhance the learning process. In a course like the DMEP, where the learner population is so diverse, this could be a problem. In order to solve these problems, the questions stated in Table 5.32 should be answered.

TABLE 5.32: Questions on media selection

Technological principles	Literature review	Researcher's experience	Informal questionnaire
Media selection	<ul style="list-style-type: none"> • What are the criteria for media selection for a distance education course? • What could be the most effective delivery mode for facilitating the pedagogy of the practical music skills in the DMEP? 	<ul style="list-style-type: none"> • How were the criteria for media selection applied to the DMEP? • Through which methods could the practical aspects of the DMEP be facilitated? 	<ul style="list-style-type: none"> • To which of the listed media do you have access? <ul style="list-style-type: none"> – Video machine – CD-player – Overhead projector – Cassette player – Computer – Computer with CD-drive <p>1 = I have one at home. 2 = There is one at school. 3 = I could get hold of one, but with difficulty. 4 = Impossible to get hold of one.</p>

(Table 5.32 continued)

Technological principles	Literature review	Researcher's experience	Informal questionnaire
Media selection		<ul style="list-style-type: none"> • Could the media selection enhance the learning process? • How was the use of media in the DMEP explained to the learners? 	<ul style="list-style-type: none"> • Discuss how the audio and video cassette enhanced the learning process? • What would you like to be added to these cassettes? • How did the use of media contribute to your understanding of the practical music skills? Do you have any suggestions to make the facilitation even more effective?

■ **What are the criteria for media selection for a distance education course?**

Media can generally be divided into two categories, namely informational and instructional media. Informational media present the information to the learner without facilitating a response from him/her. Instructional media, on the other hand, facilitate active participation and communication from the learner.

Before media can be selected, the instructional designer should determine what the criteria and outcomes of media selection are. The elements stated in Table 5.33 should be taken into consideration when selecting a delivery mode.

TABLE 5.33: Criteria and outcomes of media selection

CRITERIA The facilitator should:	OUTCOME The media should:
<ul style="list-style-type: none"> • evaluate the nature of the learning task. 	<ul style="list-style-type: none"> • motivate learners.
<ul style="list-style-type: none"> • be knowledgeable of the capabilities and limitations of the proposed media. 	<ul style="list-style-type: none"> • facilitate the recollection of information.
<ul style="list-style-type: none"> • consider the employment and development costs involved. 	<ul style="list-style-type: none"> • provide learner stimulus.
<ul style="list-style-type: none"> • take the availability and accessibility of the particular media into account. 	<ul style="list-style-type: none"> • activate the learners' responses.
	<ul style="list-style-type: none"> • provide speedy feedback.
	<ul style="list-style-type: none"> • encourage the correct use of the selected media.

From Table 5.33 it can be deduced that not only the purpose of the media, but also the expected outcome of the employed media, should be taken into consideration when selecting a delivery mode.

■ **What could be the most effective delivery mode for facilitating the pedagogy of the practical music skills in the DMEP?**

In order to answer this question, the facilitator needs to determine the most appropriate media for the facilitation of practical components. The advantages and disadvantages of media as tabulated in Chapter 2 should therefore be taken into consideration.

A summary of the media application will be given in Table 5.34. The first column indicates the type of media that could be selected. Column two evaluates the media for its suitability to present and facilitate the practical skills involved in Music Education, whilst the third column summarises the effectiveness (✓) or ineffectiveness (×) of the various delivery modes according to the needs of the DMEP.

TABLE 5.34: Media selection for facilitating practical skills

TYPE OF MEDIA	SUITABILITY FOR PRESENTING PRACTICAL SKILLS	CONCLUSION
• Printed text	• Difficult to provide a variety of stimuli: reading and performing actions.	✗
• Audio cassettes	• Visual stimuli interfere with hearing.	✗
• Video cassettes	• Bring viewers close to the action. • Provide models of behaviour. • Demonstrate processes and skills.	✓
• Computer-assisted learning	• Hardware requirements can limit potential applications. • Can engage learners in controlled interactions.	✗ ✓

From Table 5.34 the conclusion can be drawn that video material and computer-aided learning can be employed for teaching and demonstrating the practical Music Education skills. It is, however, important that the information is developed with that purpose in mind and that the material is kept up to date with the latest educational and technological developments.

■ **How were the criteria for media selection applied to the DMEP?**

The media selection for the DMEP was based on two very important parameters, namely the time at hand and the access learners had to media. Most of the learners involved in the DMEP only have access to cassette players and video machines. A video machine and cassette player were selected as a minimum requirement for admission to this course. The in-service material that was adapted for the DMEP also included a video and audio cassette. With the urgency to complete a programme that could be used for the distance Music Education course, these media were incorporated as is. Consequently the DMEP was designed to incorporate the existing media.

It is also important to note that there are learners enrolled in the DMEP who have access to more advanced media. The need for the learning material to be made available via these technologies should be addressed.

■ **Through which methods could the practical aspects of the DMEP be facilitated?**

From the literature review it became apparent that the media used should be up to date and of good quality. The adapted video and audio cassettes should therefore be evaluated for their effectiveness. Although the practical skills of Music Education are explained in the DMEP, the presentation of these skills in practice still needs to be added.

The purpose of the audio cassette was to introduce the music examples discussed in the DMEP. Learners are thereby given examples of the types of material that can be incorporated in listening activities. Through the video, learners are introduced to various music styles, successful music teaching and use of media. The excerpt on music styles is still up to date and relevant. It is, however, necessary to bring the clip on successful music teaching in line with the latest developments in South African education. Examples of the practical music skills taught according to the principles of Curriculum 2005 (South Africa 1997) need to be added.

Although the use of media is successfully described and demonstrated in the video, it should be brought up to date by referring to the latest computer-based learning developments.

■ **Could the media selection enhance the learning process?**

Without the audio and video cassettes the programme would not be an effective teaching strategy. Through the audio cassette the learners are introduced to:

- various music styles;
- the designed lesson plans;
- successful listening activities; and
- quality music excerpts.

Although the video material does not include all the necessary information, it is still of value to the learning process. By watching the video learners are introduced to:

- style in music - including the architecture, fashion and trends of the style periods;
- a classroom setting where Music Education is taught;
- the application of several media in practice.

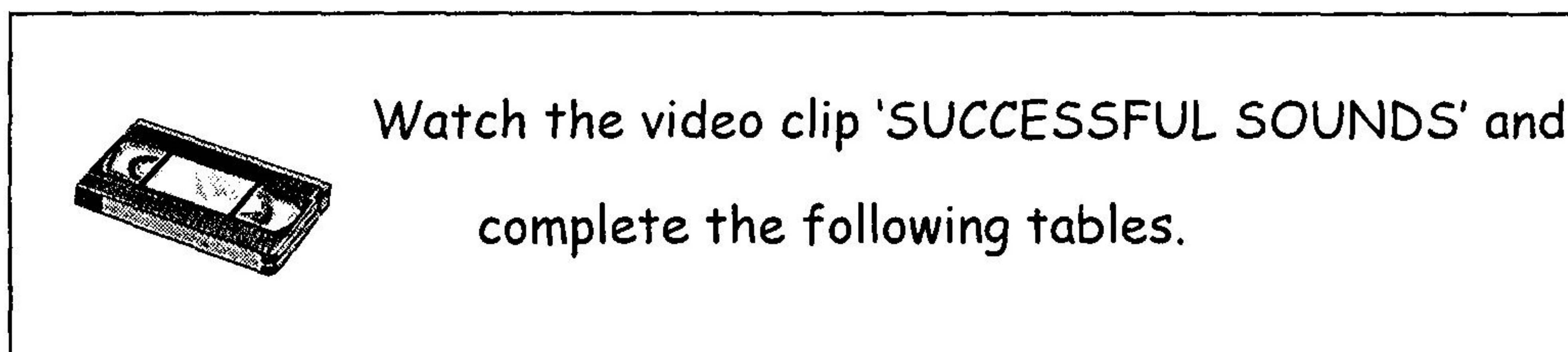
The answer to the question is, therefore, 'yes', the media selection did enhance the learning process, but could be even more effective if brought up to date.

■ **How was the use of media in the DMEP explained to the learners?**

In the preface to the DMEP, learners were told that the minimum media requirement is access to video and audio cassette players. Learners do not necessarily have to have their own hardware, but should have access to the required media.

When the learners are required to look at the video or listen to the cassette, clear indications in the text are given. Such an example is given in Figure 5.1.

FIGURE 5.1: Example of media presentation



With this example, learners are guided to recognise the icon, either a picture of a video or an audio cassette, and will know what is expected of them from the accompanying written instructions.


In the section on lesson planning, the music examples of the cassette were indicated by the following icon, . Learners came to recognise the symbol and then realised that they should listen to the example given on the cassette.

TABLE 5.35: Media selection case study answers

<ul style="list-style-type: none"> • To which of the listed media do you have access? – Video machine – CD-player – Overhead projector – Cassette player – Computer – Computer with CD-drive <p>1 = I have one at home 2 = There is one at school 3 = I could get hold of one, but with difficulty 4 = Impossible to get hold of one</p>	
African learner	<p>Video machine: I have one at home. CD-Player: I have one at home. Overhead projector: I have one at school. Cassette player: I have one at home. Computer: I could get hold of one but with difficulty. Computer with CD-drive: Impossible to get hold of one.</p>
Teacher	<p>Video machine: I have one at home. CD-Player: I have one at home. Overhead projector: There is one at school. Cassette player: I have one at home. Computer: I have one at home. Computer with CD-drive: I have one at home.</p>
Residential learner	<p>Video machine: I have one at home. CD-Player: I have one at home. Overhead projector: There is one available at the church. Cassette player: I have one at home. Computer: I have one at home. Computer with CD-drive: I have one at home.</p>
<ul style="list-style-type: none"> • Discuss how the audio and video cassette enhanced the learning process? 	
African learner	<p>Very much, because they allow us an opportunity to see how other teachers do things. I could also use the video at my college to give them an example of music styles, use of media and teaching. The audio cassette is, however, old fashioned and I would prefer to work with the better quality of a CD.</p>

(Table 5.35 continued)

Teacher	It provided me with practical examples of how to improve my teaching.
Residential learner	I found it most beneficial. It provided reinforcement - I think it is an economical way of providing lectures.
<ul style="list-style-type: none"> • What would you like to be added to these cassettes? 	
African learner	Although I found the material was useful, I would suggest that some examples of African traditional music and teaching environments be included. Information on how to run and organise a workshop and music festival would also be helpful. The use of 'old' media is described in the video but it should be brought up to date with the latest developments as was described in the learning material.
Teacher	<p>On video, I would like lessons incorporating all of the skills so that one can see how this should be done. Lesson examples of various age groups would also be helpful so that we can see the difference between the presentation and preparation of the different age groups. The use and care of modern media and programmes could also be included in the video. We could, for instance, have learned how to make use of Windows; Power Point; etc. on the video in our own time - and not in a rushed afternoon session.</p> <p>As far as the audio cassette is concerned, I do not suggest that more music should be added. This will force us to make use of the variety of resources in the library and not only make use of this one cassette in our teaching. The cassette should therefore only be used as an example of music that could be incorporated.</p>
Residential learner	A video pertaining to the use of modern technology.
<ul style="list-style-type: none"> • How did the use of media contribute to your understanding of the practical music skills? Do you have any suggestions to make the facilitation even more effective? 	
African learner	I could learn the rules on how to use the overhead projector and other teaching media.

(Table 5.35 continued)

Teacher	It helped, but as I indicated before I suggest that a demo lesson on HOW to teach effectively be included.
Residential learner	As I was already familiar with the didactics involved in the presentation of the practical music skills - I would like to see them demonstrated in practice on the video so that one can imitate and develop the presentation of these skills.

The teacher and residential learners are both moderately computer literate and have access to advanced delivery modes. The African learner, as most of the others enrolled for the DMEP, does however, not have access to a computer. The video facilitated the presentation of a lesson and practical skills to some extent. It was, however, suggested that the skills be demonstrated on the video so that learners can see the application of the didactics in practice. More examples on various teaching environments, teaching of various learner groups and cultures are required.

As far as the audio cassette is concerned, it was suggested that material also be made available on CD for those learners who have access to a CD-player. This is, however, not a practical suggestion taking copyright laws into consideration. No suggestions on added material were given for the audio cassette.

CONCLUSION

The outcome of Chapter 5 was to determine how successfully the principles of instructional and distance education were applied to the field of Music Education. The reflection on the design process was conducted through comparing the literature review, researcher's experience and informal questionnaire of the DMEP. This was done by formulating questions that could indicate what the parameters of successful design would be.

By comparing the answers from the literature review, researcher's diary and questionnaire, it became apparent where the DMEP could be improved. After sorting through the information, the facilitator needs to critically evaluate the

answers. It became apparent that the DMEP could be improved in the following sectors:

- process of design;
- learner automation;
- delivery systems; and
- student support services.

The reflection on the answers can then be used to make the necessary recommendations and plan the next action cycle. The recommendations and proposed changes to the DMEP will be discussed in Chapter 6.