AN INVESTIGATION OF THE EFFECTIVENESS OF PROGRAMMED LEARNING IN THE TEACHING OF HARMONIC DICTATION IN A BEGINNING COLLEGE MUSIC THEORY COURSE

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements For the Degree of

DOCTOR OF EDUCATION

By

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Denton, Texas
August, 1964
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1964
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Congratulations!

You are part of a programed learning experiment. In programed learning you will find that
1) the learning steps are small, (2) you will be told the correct answer immediately after your re-
ponse, and (3) you may proceed at your own rate of speed.

Tape recordings have been made to accompany this book, and are available in the listening room
at the check-out desk. The following suggestions should be strictly observed:

(1) You should attempt to listen to the recordings only at the time you have been assigned to do so.

(2) Each step should be followed exactly as instructed in order for the book to be of value. (It is
expected, however, that some of you will work much faster than others.)

(3) You should hum (or sing) when asked to do so, even though no check is made on your
accuracy. While you may sing in any octave, your singing should be in the same key as that
of the recording.

(4) Do not look at the correct answer until you have made your response.

(5) Try to be certain that your response is correct, but if it is not, make the necessary cor-
rection and then listen again before proceeding to the next frame. You will not be graded on
your performance in this book.

(6) While you may listen to each frame as many times as you wish, try to cut down on your
listening time as you proceed through the book. When you are tested at the end of the
semester you will hear a limited number of playings of each exercise.
How to Use this Book

As you turn to the first page of the book you will notice that a half-page is on the left, and that instructions for each frame are written on the half-page. If a frame requires an answer, it is to be written on the right side of the page in the space provided. Do not lift a half-page section until you are ready to check your answer. When you have completed frame number 1, turn the page to find frame number 2, etc. When you have completed frame number 76, turn back to the first page once again to find frame number 77. When the tape is threaded on the machine, instructions for starting and stopping it will be found in the book. The symbol (X) will be to stop the recorder before the tape rewinds, and will be found at the end of some of the musical phrases. If you wish the frame to be repeated over and over, it will do so automatically, and you may stop the machine when you are prepared to write.

When you are ready to hear the next frame, follow the override procedure as found in How to Operate the Recorder. The symbol for override will be (O). Begin tape I when you begin Chapter 7 in your Elementary Harmony Text. You should finish tape I by the time your class finishes Chapter 7. Begin tape II as you begin Chapter 10 in your text, and tape III as you begin Chapter 11.

How to Operate the Recorder

Do NOT attempt to operate the recorder until you have received instructions and have seen a demonstration. The following operational steps are listed so that you may check the procedure.

1. Press stop button. Turn on recorder (tone control knob turns to the right.)

2. Place full reel on left spindle. Notice that one side of the reel is marked "this side up."

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(3) Pull off about two feet of the tape, thread the recorder as indicated below, and wrap the tape a full turn around the empty reel.

![Diagram of recorder and tape threading](image)

(4) When your earphones are in place and you have read the first frame's instructions, press the "PLAY" button and adjust the volume. (For a start, try the volume level at "3".)

(5) When you have finished listening to a particular frame you may follow the override procedure (O). Press the fast forward button (>) and allow two numbers to go by on the footage counter, then press the stop button. You will have by-passed the old frame and will hear a new frame played by pressing "PLAY". In case the tape has gone too far merely allow it to continue. It will rewind itself and begin again on the new frame.

(6) When you are ready to rewind the complete tape, press the rewind button (\). 

(7) On the provided spaces below, enter the hour and minute that you begin and end each session. It is very important that you be exact.

<table>
<thead>
<tr>
<th>Tape Number</th>
<th>Beginning Time</th>
<th>Ending Time</th>
<th>Total Time Spent</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Hour Minute</td>
<td>Hour Minute</td>
<td>Hour Minute</td>
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</tbody>
</table>
Tape 1

As shown at right, the symbol for (X).

NO ANSWER REQUIRED

PLAY
 deletion of the
 tonic of the key.
 as well as the

 NO ANSWER REQUIRED

 CHORDS TO PLAY

 IV I

 V I IV I V I
In the bass notes
be the roots of the
last two bass notes
OL down to DO.

PRESS PLAY
If you aren't sure, press play.

The iv chord.

(O)
An authentic roots of the
A cadence
using several of
chords 5 times.

authentic

IV I

i iv i i V i
line as you listen.

sonic of the key.

cence is called

thus identified

ember that you

as you need to.)

ESS PLAY

IUS identified

ol notes as you

es of practice

he others, and

The last note

O

NO ANSWER REQUIRED

CSS PLAY

NO ANSWER REQUIRED

NO ANSWER REQUIRED
Notice that the plagal sound final. On
s tonic of the key
s, and notice that

NO ANSWER REQUIRED

Lains to be learned
sion IV-V, or
because it is the
s far which uses
ness. Listen to this
sion IV-V.
(O)
perfect authentic

Such an effect has been heard.

NO ANSWER REQUIRED

minor, but notice that

NO ANSWER REQUIRED
noticing that it sounds
change in the last two

(O)

will also be omitted
you fill in the soprano
re members of the

(O)
in the soprano line.

hum the tonic of the

at the final soprano

key. While the

it is now imperfect.

NO ANSWER REQUIRED

...
If the song is available, the cadence will feature perfect or imperfect chords; the cadence will usually resolve to a minor (i) chord. (O)

(O)
ence, humming the words) as you listen.

Chord numbers in this.

This lesson are for include the progres-

tes. Only quarter notes will be used.

Then you have one to the next.
For practice, here are authentic half and imperfect 2nds. Listen as many times as necessary. Move over the frame, over.

<table>
<thead>
<tr>
<th>I</th>
<th>A</th>
<th>M</th>
<th>I</th>
<th>I</th>
<th>I</th>
<th>I</th>
<th>I</th>
<th>V</th>
<th>I</th>
<th>I</th>
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<table>
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<tr>
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Hum the tonic
playing. During
soprano line and
check whether
perfect
Write and check perfect or imperfect.

(imperfect)
the last two
that you may
you need to.

perfect
FRAMES

for practice. Fill after the first hearing, the last two soprano more hearings.
is perfect or im-
completed one frame,

(O)

perfection

iv i

i iv V i V i i iv I
soprano and tenor is
imperfect

IV I

V I
chord major.

(O)
Final bass and tenor. When the chord is perfect or

(O)

May be sung with the bass note is then sing the "I". (You may do

NO ANSWER REQUIRED
played in first in-
rd in the bass),
y again be used to
, however, the
ith the number
ing the chord.
the chord played.

(O)
<p>| | |</p>
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In second

| chord in the bass),
| the sung to identify
| note should be sung
| the chord played.

(O)

NO ANSWER REQUIRED
Word played three times first time in root position, second time in first inversion, third time in second inversion. Let us consider several times so that you will have a good idea of the inversions.

(O)
Line which octave bass note.

(O)
bass note in (O)

NO ANSWER REQUIRED
Awake only the
while your job is
soprano and bass
), you should hum
all the way through.
The last two soprano
notes to the tonic of the
the scale.

(O)

(NO ANSWER REQUIRED)
be played in root
and second inversion, that you may "learn"
without regard in its inversions.

(O)
Principal triads may be

any one of them (the
second inversion in
will consider the
inversion) at this
case which makes use

(O)
Authentic cadence

have had some trouble

them again.

(O)

always be used in the

the cadential 16.

notice that it is

the V chord in root

NO ANSWER REQUIRED

PRESS PLAY
This page discusses authentic cadences in music. The end of a musical piece is marked by an authentic half cadence, which leaves the listener feeling satisfied.

The dominant is the chord that precedes the final chord. Some listeners feel that the $I_6^4$ chord is inappropriate at the V chord, giving the impression of a wrong resolution. These "wrong" cadences are important in understanding the harmonic language of music.

NO ANSWER REQUIRED
An authentic with the triad

I - V

NO ANSWER REQUIRED
Listen for the bass while two of the parts move upwise.

(roots of $O$)
to have a I triad
ance, and this would
isten to the half
he tonic of the key
ning.
ESS PLAY

113

V I

14

I6 V I

14

I V
The half cadence in
one followed by another
fitting of finality.

This lesson will not
be the key signature.
With the key center
exercise is in a
the second playing
one in the final two
iters. On the third
ome and fill in the
ring for a final

for the I₆ and V
accurately, but will

2. Listen carefully
notes for the upper
the upper voices

(O)
of cadence

at the V chord

(0)

NO ANSWER REQUIRED

(0)

voices in the

carefully to

note is repeated

(0)
Now, fill in the voices. Remember, bass notes must be filled in. Write.
Listen to determine the third principal tone of I, IV, and V.

(O)

Listen to this passage of this authentic stentorian note.

(O)

(NO ANSWER REQUIRED)
Listen carefully to soprano moves by the Bb major scale to determine the (O)

...
the last two
Listen to determine
soprano notes is the

(O)

from these bass notes
ed. Notice that the
the bass is the only
an one chord poss-

I V

I IV

NO ANSWER REQUIRED

chord possibility:
Determine which of the authentic half, perfect authentic. Fill in two soprano and bass as you need to, and answer. When you have (O) to the next.
Determine whether or one is the tonic.
(O)

mind, supply chord notes in Ab avoided only once. The
whether or not this

(O)

the chords and

playing which

versions.

22

NO ANSWER REQUIRED
For the final example, to the imperfect authentic chord.

In the bass notes, the bass notes for those two measures have a different quality of bass notes than the others.

NO ANSWER REQUIRED
A resolution in a minor 6th major because it is the 6th and 7th scale degree according to the tonic.

No answer required.
Harmonic progression also be used in place of the different forms are abbreviated) and chord numbers use. Indicate any placing a "6" to the right in cr. Indicate a "6" to the right 4
After the first
pressing the second
inversions with chord

NO ANSWER REQUIRED

any inversions.
(O)
It is important for this lesson. On the first words. On the first write the chord you sing them. (O)

This time will be given. Listen before making want to hum the (O)
bass notes with
them below each

I IV IV I V I

any inversions.

I I I I V V

(O)
In minor and the V authentic half

(O)
Several of them you may find in your sheet.

{(O)

Card numbers when chords are given. If there is nothing between the IV chord and the tonic of the key, you do not have to play the V chord, but can play the IV chord directly up or down the scale.

{(O)

I have blanks for the chord numbers when chords are given. Each blank is to be filled with the correct chord number and word such as 'perfect authentic' to help you ascertain the correct position.

{(O)
humming the words) as you listen.

These notes sound like DO.

O

often as

O

the blank with the number.

O
roots of chords 4 to

Listen again to be

PRESS PLAY

I I IV I V I

I V I6 IV V I I IV6 V6 I

I V IV
A plagal cadence consists of I, IV, and V and is often played using the chord numbers. Before you see the example: I-IV-V-I progression.
A cadence of the chor is said to be plagal.

I | V | I | IV | I

I | V | I | IV | V | I | IV | I

numbers when no bass
first hearing hum
to write the chord
only one or two
have completed one
I | V | I | IV | V | I | IV | I

(O)
Notice that the last

possible to have the
tonic of the key

S PLAY

I V I IV I V

i i iv i V i V V I
that the plagal ca-
cadence often sung
after the first hearing
on the key note (G).
the keynote as the

(O)

i V i i V i

M E S
practice. Nothing
will be given. After
harmonic. During the se-
the chord numbers as
ting the third hearing
ce, and during the
Then indicate
check to see that
may need other
one, override to

(O)
A cadence is plagal if it by trying to hum the last two chords its both chords, this method on (O)

I IV IV I V I

One which degree of the end of the semesters hearings. Try to things as you proceed. (O)
method, you may of
the scale quickly
determine if the
scale is the root of the
this cadence.

NO ANSWER REQUIRED
designated as being the roots of the 3s notes, the question whether the 5th or 5th of the cadence is imperfect. If the 

I V I I IV I V I I IV I V I

full measure.

V I V6 I I6 I IV I IV I6 V I

NO ANSWER REQUIRED
63

Principal cadence. If the
odic of the key, check
al. If it ends on a
check it as imperfect plagal

V

I

IV

I

V

I

IV

I

imperfect plagal

imp. plagal

I

IV

V

I

IV

I

iv

i

iv

vi

i

i

iv

vi

i

IV

V

i

6

V6

i

i6

iv

iv

i

iv

i

i

iv

iv

i

i

iv

iv

i

iv

i

iv

iv

i

iv

i

iv

iv

i

iv

i

iv

iv

i

iv
Listen to this

In the last two bass

Use the chord numbers when

(O)

are given. After the

music, and determine

major or minor.

Write the chord

Since the roots

be able to fill in

quarter and half

check if you need

always be a com-

(O)

This other.

(O)
in the missing

and playing hum the

last soprano note.

one whether the

or descends.

imperfect.  (O)

the chord numbers

(O)
at in a minor key

imperfect

pick-up.
For practice, exercises. After bass notes, notes after things. Check it. When ride to the imperfect
no part to what you
two more hearings
you have written
ass notes, hum the
soprano notes as
Any skips will con-
tinued in sightsinging
you may find it
when the harmony is
(O)
ord numbers,

imperfect
imperfect
pass and soprano or tenor. You do or imperfect.

(O)

with a half note half note will be note in previous

(O)
For practice. Only I-IV (i-iv), V-I used. Any chord.

Write chord numbers on notes. See if you can do this in four (or more) notes and half the first measure will allow you have completed the next.

(O)
Note that you should be able to hear the chord that is implied in the bass line:

(O)