

CHAPTER FOUR

ANALYSIS OF SINGING TASKS IN NEMP

“Evaluation is integral in living and learning.”¹ Gordon Bentley

This chapter focuses on an analytical discussion of the two singing tasks that were administered as part of the National Educational Monitoring Project (NEMP) in 1996, namely “Sing Song” and “Vocal Sizzle.” The musical phrases of these tasks can be found in the Appendix. The Educational Assessment Research Unit (EARU) chose 187 videos of students who participated in these tasks for further analysis. This represents a sample of approximately 10% of the original data gathered in these tests. Six videos could not be used in this analysis for the following reasons:

- Two videos did not have the tasks “Sing Song” and “Vocal Sizzle” recorded on the videos.
- A teacher did not follow the instructions correctly in the task “Sing Song”, and thus the data was considered to be invalid on four of the videos at the year 8 level.

While the videos were reviewed, the students’ individual responses to each phrase or song were all noted, and other observations pertinent to this analysis were recorded. Following the reviewing process two databases were compiled to represent the two tasks. Each student’s responses were entered as separate records, to allow for the process of analysis.

TABLE 1

Breakdown of total numbers in this sample

	<u>SING SONG</u>			<u>VOCAL SIZZLE</u>			
	Male	Female	Pakeha	Male	Female	Pakeha	
Yr. 4 (n = 54)	31	23	41	Yr. 4 (n = 44)	20	24	33
Yr. 8 (n = 38)	17	21	33	Yr. 8 (n = 45)	20	25	37

The three main areas of focus for the analysis are:

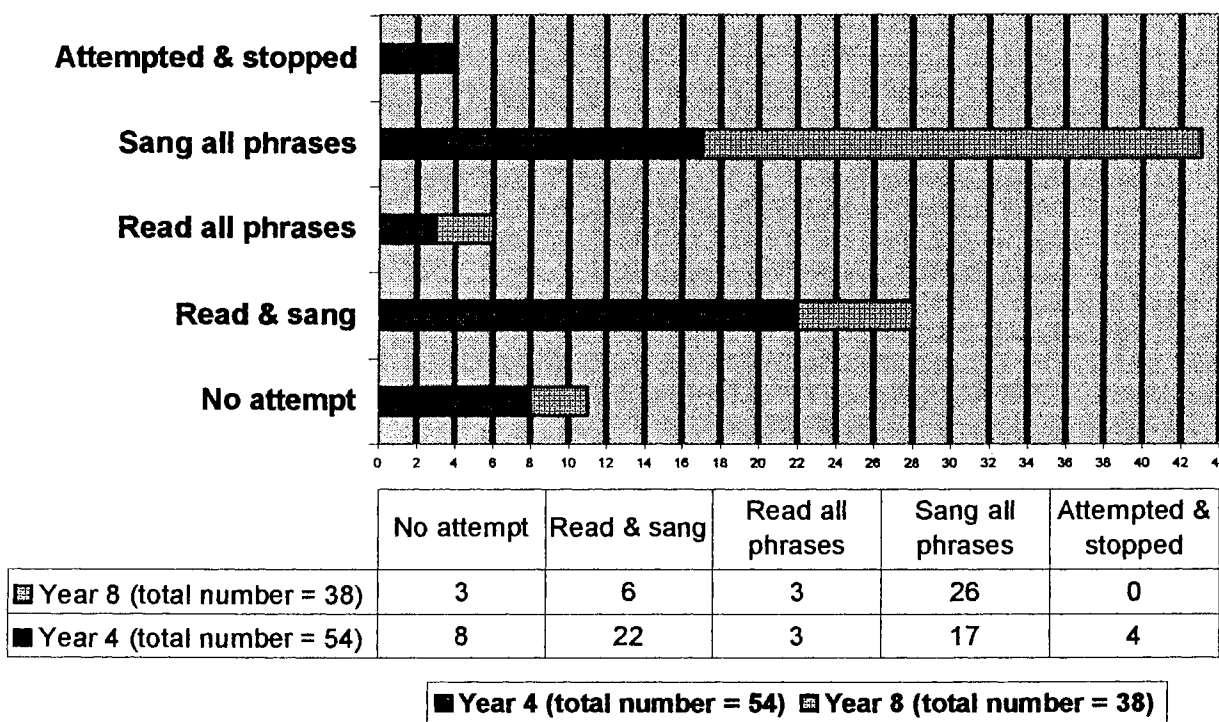
1. A study of relatively inaccurate intonation
2. Coping with an uncomfortable pitch level
3. Pitching the first note

At the outset it should be noted that the task “Vocal Sizzle” elicited more correct responses among the students at both the year 4 and year 8 levels than did the task “Sing Song.” Out of a total of 89 students who participated in “Vocal Sizzle,” five at the year 4 level and two from year 8 sang all the phrases correctly, while two year 4 and three year 8 students had almost all the

phrases correct with slight intonation problems. In comparison none of the 96 students who participated in “Sing Song” were able to sing all the songs correctly, while there were only two students (one from each year level) who almost sang all the phrases correctly, except for minor intonation problems.

It is significant that only one student (at the year 8 level) did not attempt “Vocal Sizzle.” In comparison, “Sing Song” was not attempted by eight year 4 students and three year 8 students. A total of five year 4 students (two participating in the “Vocal Sizzle” task and three in the “Sing Song” task) chose not to continue a task after attempting at least one or more phrases. There were also examples in “Sing Song” of four year 4 students and seven year 8 students who chose to read the words rather than attempt to sing, while twenty-two year 4 and three year 8 students alternated between singing some of the phrases and reading the others. The following chart indicates the students’ responses to the task “Sing Song.”

CHART 1
Students' responses to the task "Sing Song"



The major difference between the two tasks was the use of words in “Sing Song.” Many students appeared to be self-conscious during this task. The words heightened the complexity of the task for two reasons:

1. The words made “Sing Song” more like a tangible singing experience and for this reason it may have been intimidating for some students. Students who weren’t used to singing, and

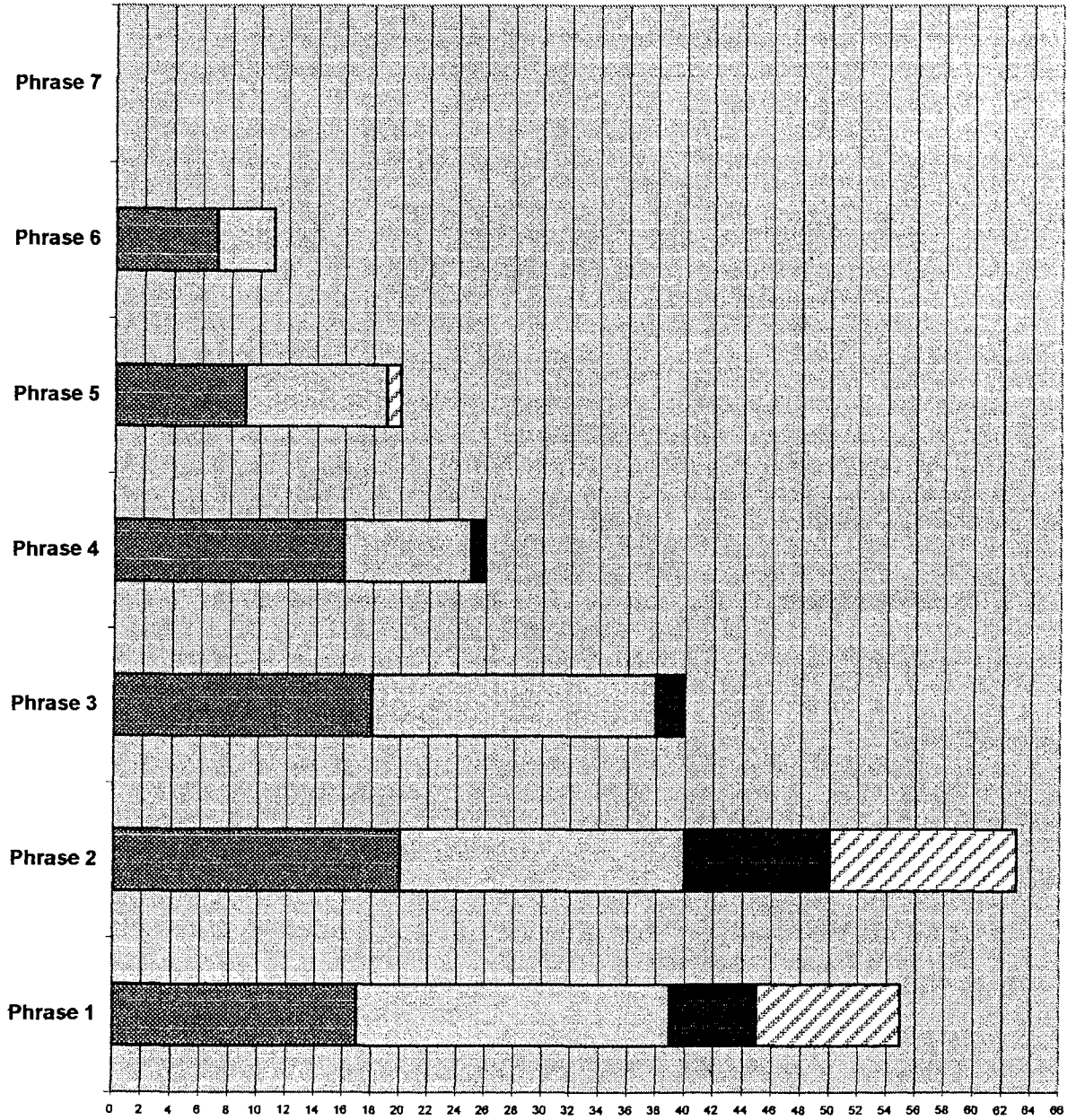
particularly singing solo, may have found the “Sing Song” exercise daunting. This possibly accounts for the fact that 20% of year 4 students and 15% of year 8 students made no attempt to sing. In contrast 98% of the students attempted to sing in the “Vocal Sizzle” task. The “doo” sound makes the voice sound more like a musical instrument and less like a real singing exercise. “Vocal Sizzle” was therefore a much simpler and less threatening task to students.

2. A common difficulty experienced by the students was in pronouncing words such as “Sligo” and “Belfast.” Ten year 4 students and three year 8 students were affected by this. There may have been more with reading difficulties, had it not been for the intervention of Teacher Administrator’s who offered reading assistance to some students.

The other differences between the tasks were that the melodic phrases were much longer in “Sing Song” and there was also an extra phrase (phrase 7) included in this task. In “Sing Song,” students had to contend with not only remembering the longer melodies, but also reading the words and fitting the words to the melody. The following chart shows the number of accurate responses per phrase in both tasks.

CHART 2

The number of student responses per phrase in both tasks



	Phrase 1	Phrase 2	Phrase 3	Phrase 4	Phrase 5	Phrase 6	Phrase 7
Year 8 S.S. (n= 38)	10	13	0	0	1	0	0
Year 4 S.S. (n= 54)	6	10	2	1	0	0	0
Year 8 V.S. (n = 45)	22	20	20	9	10	4	
Year 4 V.S. (n = 44)	17	20	18	16	9	7	

Year 4 V.S. (n = 44) Year 8 V.S. (n = 45) Year 4 S.S. (n= 54) Year 8 S.S.(n= 38)

Since the phrases and songs progressed from simple intervals to more complex ones, it was evident that the more difficult the phrases became, the less students were able to render the successive phrases accurately. It is also apparent from this chart that "Sing Song" was a much more complex task, as there were no accurate responses to phrases 6 and 7.

A further analysis was made between the difference between male and female responses to the phrases in both tasks. In "Vocal Sizzle" more female students sang correct responses than male. This finding is consistent with the findings reported in the Assessment Results Manual for 1996² Studies of gender differences have also revealed that "girls are consistently being rated as more competent "in-tune" singers than boys (Trollinger, 1994; Welch & Murao, 1994). Recent research studies published in Ireland continued to support these summative findings and there is an ongoing consensus that the proportion of boy to girl out-of-tune singers is 2 or 3:1 for any given age group."³ However there was an exception noted in "Sing Song" at the year 4 level, with more correct male responses, while at the year 8 level there were more correct responses recorded from females.

The numbers of students from other cultures numbered 20% at year 4, and 24% at year 8 in the task "Vocal Sizzle," while in "Sing Song" there were 24 % and 18% at year 4 and year 8 respectively. Two students who participated in "Vocal Sizzle" sang all the phrases accurately (one at year 4 and one at year 8). "Sing Song" caused reading difficulties for five of the students (four at year 4 and one at year 8), and two year 8 students did not attempt this task. These findings are in accordance with the Assessment Results Manual for 1996, which states that non-Maori students scored higher than Maori students in these tasks as "embarrassment and language difficulties may have differentially affected Maori students."⁴

External influences on students' responses

In the preceding chapter it was noted that various criteria needed to be taken into account in any kind of testing situation. In the case of the singing tasks administered by NEMP the following observations were made which may have had a bearing on the students' responses:

1. The video camera

It was observed during both tasks that some students appeared to be self-conscious during the process. Since all the students were aware that they were being recorded by a video camera this factor may have affected some of their responses. This was particularly noticeable for those students who were not keen to sing, but nevertheless attempted the activity.

2. Extraneous noise

Students' ability to listen was an essential component in the NEMP singing tasks. Listening involves concentration and the student's ability to hear the voice on the monitor accurately was a critical part of being able to echo sing the same melody. A factor that may have influenced some of the results of the tasks was extraneous noise. In the one on one testing, there were mostly two students in a room at the same time participating in different tests. Noise emanated from either the sound of the NEMP instruction video being played for another student in the room, or by a student performing a musical task such as playing the keyboard or singing. In three cases

disturbing noises could be heard coming from construction works outside the room. In the task “Vocal Sizzle” noise was an issue during seven year 4 and eight year 8 tasks, while noise featured during three year 4 and nine year 8 “Sing Song” tasks.

It was evident that several students were conscious of the extraneous noises, and indeed sometimes the teaching video was almost inaudible. Some students requested for the volume to be adjusted on the instruction video, and occasionally a student was observed giving a distracted glance towards the area from where the noise emanated. It is questionable whether student’s responses can therefore be accurately assessed under these conditions.

3. The role of the Teacher/Administrator (T/A)

Another factor for consideration in the overall analysis is the T/A’s ability to convey information to the student. This was particularly evident during the task “Sing Song.” As was stated at the beginning of this chapter, four year 8 videos could not be included in this analysis, because one T/A insisted that four students should sing with the child Matthew on the instruction video, while he repeated the song a second time. The intention of the task was for the student to be able to recall the song unaided. As these four students did not perform the task alone, their responses are considered to be invalid for the purposes of this analysis.

In another example a year 4 student performed the first two songs without hesitation and there were no intonation problems, although both songs were pitched a third below the actual pitch. The T/A then suggested that the student could stop at any time if he wished, and he immediately elected to stop the activity. Had the T/A not intervened the student might have continued. There was also an example of a T/A who intervened before the student attempted to sing the first phrase. The T/A asked the student whether he could sing the phrase and the response was that he could not. The activity was then stopped without any attempt by the T/A to try to engender further interest.

By contrast other T/As who clearly had unwilling students continued with the activity until it was obvious that the student was not going to attempt to sing. In these insistences the activity usually ended after the fourth song. Two other T/As made an effort to try and persuade the student to at least try the activity. One suggested that the student might want to listen to the songs and that she could join in if she wanted to. The student chose not to participate and after the fourth song the activity was stopped. However another student was persuaded to continue by the T/A’s ability to make her feel at ease. She sang three of the songs with recognizable pitches, two were read and two were rendered in a half-sung, half-spoken manner. Both these T/As displayed a lot of patience and a real desire to want to help the students with this activity.

One particular T/A appeared to be unhelpful with her four students. The following points were observed in her interactions with these students:

- She made no attempt to stop disturbing extraneous noise that was evident on one video. The student who was affected by this noise did not respond to the first four songs on the instruction video and the activity was stopped.
- Three students who attempted the activity, sang each song twice without intervention from the T/A.

- One student seemed to have a particularly difficult interaction with this T/A. Apart from the fact that the student also sang each song twice, there were three other points that were observed:
 - (i) The keyboard that was used in the previous activity was not removed and nor was it pushed to one side. The instrument was clearly an obstacle for the student, as it was in her way as she tried to read the words of the songs on the sheet given to her.
 - (ii) The student experienced difficulty with the words of the fourth song “Granddad Murphy comes from Belfast.” She tried unsuccessfully to correct herself without assistance from the T/A. Eventually the T/A asked the student whether she wished to continue, and the student replied that she did. During this exchange the instruction video was not stopped. The student then attempted the fourth song yet again, while the fifth song was being sung on the instruction video. The result was that the student did not hear the fifth song, and she resorted to reading the words.
 - (iii) During her rendition of the sixth song, the student was distracted by the T/A shuffling papers.

There were other instances when the T/A proved to be a real asset during the “Sing Song” task. Three T/A’s helped eight year 4 students by ensuring they could read the words of each song before they heard it being sung on the instruction video. They also assisted the students by pointing to the words on the song sheet while the students sang their renditions. This demonstrated care on the part of the T/A’s, that resulted in an adequate performance of the tasks by the students.

In direct contrast there were two T/A’s who made no attempt to help their year 4 students (they each had two of these younger students) when they experienced problems with the words. However the question arises whether the T/A’s role was that of a facilitator, or simply to impart instructions. T/A’s who assisted students also played a part in affecting the results of the singing tasks.

After reviewing these videos, it is apparent that in these particular tasks, the T/A’s ability to communicate effectively with the student is of paramount importance. It is evident that the T/A plays a vital role in two ways:

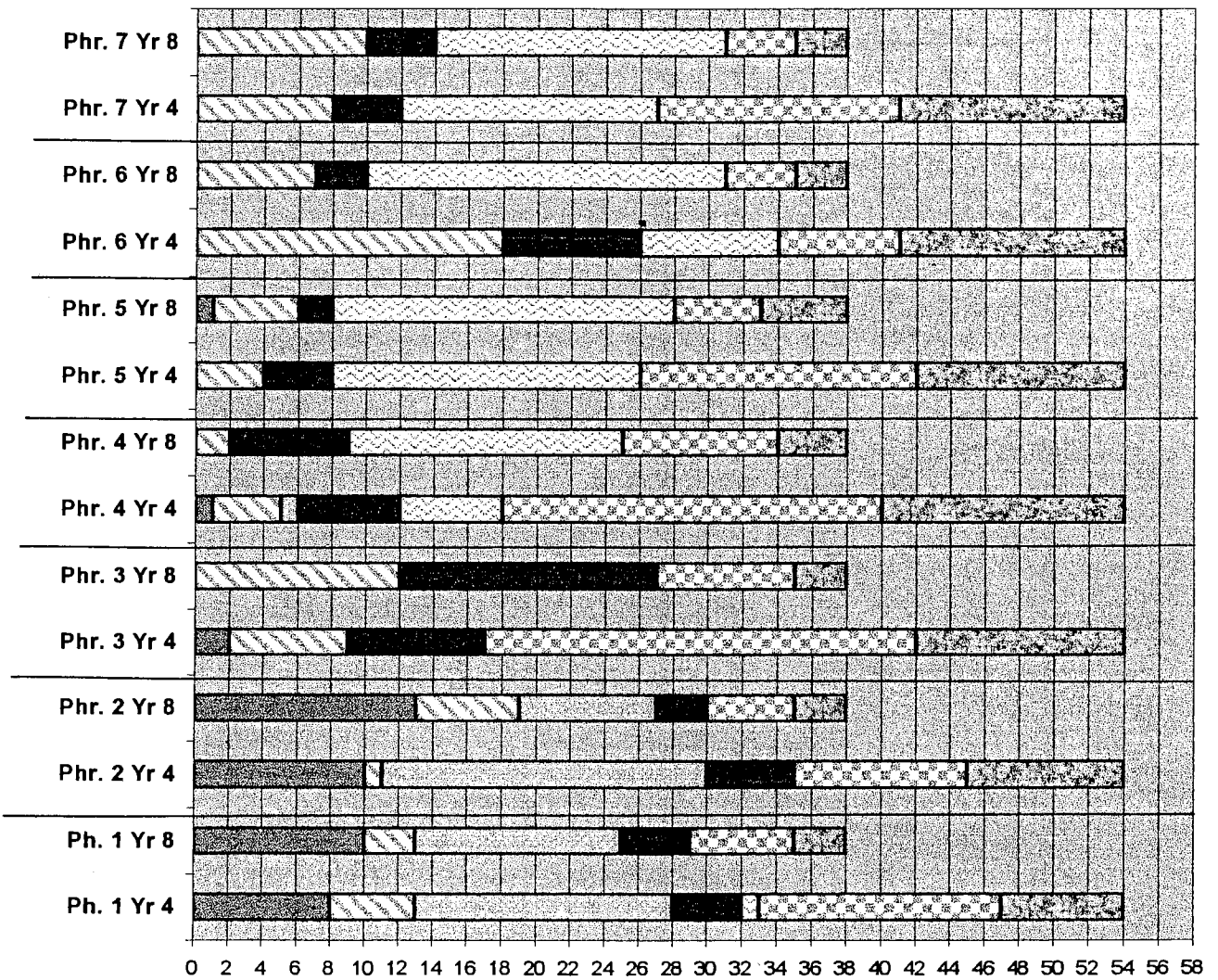
1. Ability to convey accurate information concerning the test so that the student understands exactly what the test entails.
2. Desire to help the student feel at ease by being sensitive to the student’s needs.

A study of relatively inaccurate intonation

For the purposes of this analysis, the following chart (chart 3) shows a breakdown of students' responses to each phrase in the task "Sing Song."

'Intonation' refers to one or two notes in a phrase that are sung either flat or sharp, while the first note was usually correctly pitched. 'Pitch and intonation' refers to a phrase that was sung at a different tessitura in which the student also experienced intonation difficulties. 'Tessitura' refers to an accurate rendition of the phrase but sung at a different pitch than the original. 'Creative tune' refers to a rendition of a phrase that has different intervals from the original, and there are no intonation problems.

CHART 3
Students' responses to each phrase in the task "Sing Song"



	Ph. 1 Yr 4	Ph. 1 Yr 8	Phr. 2 Yr 4	Phr. 2 Yr 8	Phr. 3 Yr 4	Phr. 3 Yr 8	Phr. 4 Yr 4	Phr. 4 Yr 8	Phr. 5 Yr 4	Phr. 5 Yr 8	Phr. 6 Yr 4	Phr. 6 Yr 8	Phr. 7 Yr 4	Phr. 7 Yr 8
■ No attempt	7	3	9	3	12	3	14	4	12	5	13	3	13	3
□ Read all phrases	14	6	10	5	25	8	22	9	16	5	7	4	14	4
□ Creative tune	1	0	0	0	0	0	6	16	18	20	8	21	15	17
■ Pitch & intonation	4	4	5	3	8	15	6	7	4	2	8	3	4	4
□ Tessitura	15	12	19	8	0	0	1	0	0	0	0	0	0	0
□ Intonation	5	3	1	6	7	12	4	2	4	5	18	7	8	10
■ Correct	8	10	10	13	2	0	1	0	0	1	0	0	0	0

■ Correct	□ Intonation	□ Tessitura	■ Pitch & intonation
□ Creative tune	■ Read all phrases	■ No attempt	

'Sing Song'

1. *"Sticky glue everywhere"*

In the first phrase, very few students experienced intonation problems, with only one or two notes slightly incorrect in the phrase. The most common fault in this song was pitching the first note, causing students to sing the song in a different tessitura but with the correct intervals. There were also a high proportion of students who read the phrases or did not attempt them at the year 4 level.

2. *"For goodness sake, I got the hippy hippy shake"*

Intonation was not an issue in this phrase for the majority of students at both year levels. Many students were able to render the phrase with correct intervals but in a different tessitura. Once again a high proportion of year 4 students read the phrases or did not attempt them.

3. *"They told him don't you ever come around here"*

In the third phrase intonation was an issue with year 8 students. All the twenty-seven students who attempted to sing this phrase experienced difficulties with intonation. The interval of the second created the biggest problem. The majority of students were confused by the number of times the first note beginning on an F was repeated. Sixteen year 8 students and eight year 4 students repeated the first note more than three times, and in most of these instances the first note was pitched incorrectly. The other common error was to repeat the F# E pattern too many times.

It is significant that at the year 4 level only seventeen of the forty-four students attempted to sing this phrase.

4. *"Grandad Murphy comes from Belfast"*

As was stated at the beginning of this chapter, many students experienced difficulty with the words in the fourth song. This may account for the fact that at the year 4 level, only eighteen students attempted to sing this phrase, while twenty-two of the students preferred to read it and fourteen made no attempt. Three of the four bars of this song require students to sing intervals of a third. Many students were able to accomplish this, but they changed the tune. Hence the high number of students at both year levels listed under 'creative tune' in chart 3.

It should be noted that one student at the year 8 level sang the phrase correctly except for the very last note when she sang a D instead of an E.

5. *"One a pecker, two a pecker"*

Very few students experienced intonation difficulties with this phrase. Almost all the students who attempted to sing the phrase left out one or both notes on the words 'bright' and 'fine.' Two students at the year eight level and one at the year 4 level sang the rest of the phrase accurately until this point. The second interval did not cause difficulty in this song, as was the finding in the third song. However many students sang their own version of the tune at both year levels.

6. *“Hey crocodile”*

It was evident that most students knew the sixth song, as a typical comment made by students was: “we sing this in class.” This accounts for the fact that so many students at both year levels attempted this song. There were more year 4 students who attempted this phrase than any of the other phrases in the task “Sing Song.” However many students experienced intonation difficulties at the year 4 level, particularly on the second syllable of the word “crocodile,” on which students sang a G instead of an F#. A total of twelve students sang the phrase accurately apart from one note (nine at the year 4 level and three at the year 8 level). In addition there were another ten students (seven year 4 students and three year 8 students) who also sang these same notes incorrectly and experienced slight intonation problems with one or two other notes in the phrase.

7. *“Somewhere over the rainbow”*

This phrase was also known by the majority of year 8 students. One student commented that she sings it at home. Once again a common error experienced by ten students was to sing the last two notes incorrectly as a B and an A instead of an A and a G (nine year 8 students and one year 4 student).

At the year 4 level, half of the students either read the phrase or did not attempt it, while the majority of the other half sang their own version of the tune. At both year levels many students sang the contour of the song correctly, but the biggest difficulty for them was the octave interval. Students mostly sang intervals of a fourth, fifth or sixth instead of attempting the octave.

Vocal Sizzle

Chart 4, which follows this analysis, gives a breakdown of students’ responses to each individual phrase. As with chart 3, ‘intonation’ refers to one or two notes in a phrase that are sung either flat or sharp, while the first note was usually correctly pitched. ‘Pitch and intonation’ refers to a phrase sung at a different tessitura in which the student also experienced intonation difficulties. ‘Tessitura’ refers to an accurate rendition of the phrase but sung at a different pitch than the original. ‘Creative tune’ refers to a rendition of a phrase that has different intervals from the original, and there are no intonation problems.

Phrase one

The first phrase of this task shared a common element with the first phrase in “Sing Song,” which is that the majority of students were unable to pitch the first note correctly. In “Vocal Sizzle” the resultant phrase was mostly sung correctly, but in a different tessitura. (See chart 4). Generally intonation problems were not very evident in this phrase.

It should also be noted that more year 8 students sang this phrase correctly than any of the other phrases in “Vocal Sizzle.” (Twenty-three correct responses out of a total of forty-five students).

Phrase two

There were more correct responses to this phrase at the year 4 level than any of the other phrases in this task. (Twenty out of a total of forty-four students).

A common intonation problem for students was to sing an interval of a third instead of a second. Eleven year 4 students and five year 8 students made this error, singing D F D instead of F G F. Many students also sang their own version of this tune.

Phrase three

The common difficulty experienced by students at both year levels was an inability to pitch the first note. This resulted in many students being able to sing the correct intervals but in a different tessitura. More year 4 students had slight intonation problems than those at the year 8 level.

Phrase four

Chart 4 reveals that more students experienced intonation problems in the fourth phrase than in any other in "Vocal Sizzle." For the majority of students at both year levels, the interval of the fifth (from a Bb to an F) created the biggest difficulty. Nine year 4 students and seven year 8 students started on the correct note (Bb) but were subsequently unable to sing the correct interval. Intervals of a third or a fourth were the most commonly sung.

It should be noted that more year 4 students sang this phrase correctly than students at the year 8 level. However the increasing complexity of intervals is apparent from phrase four, as progressively less students were able to sing the phrases correctly.

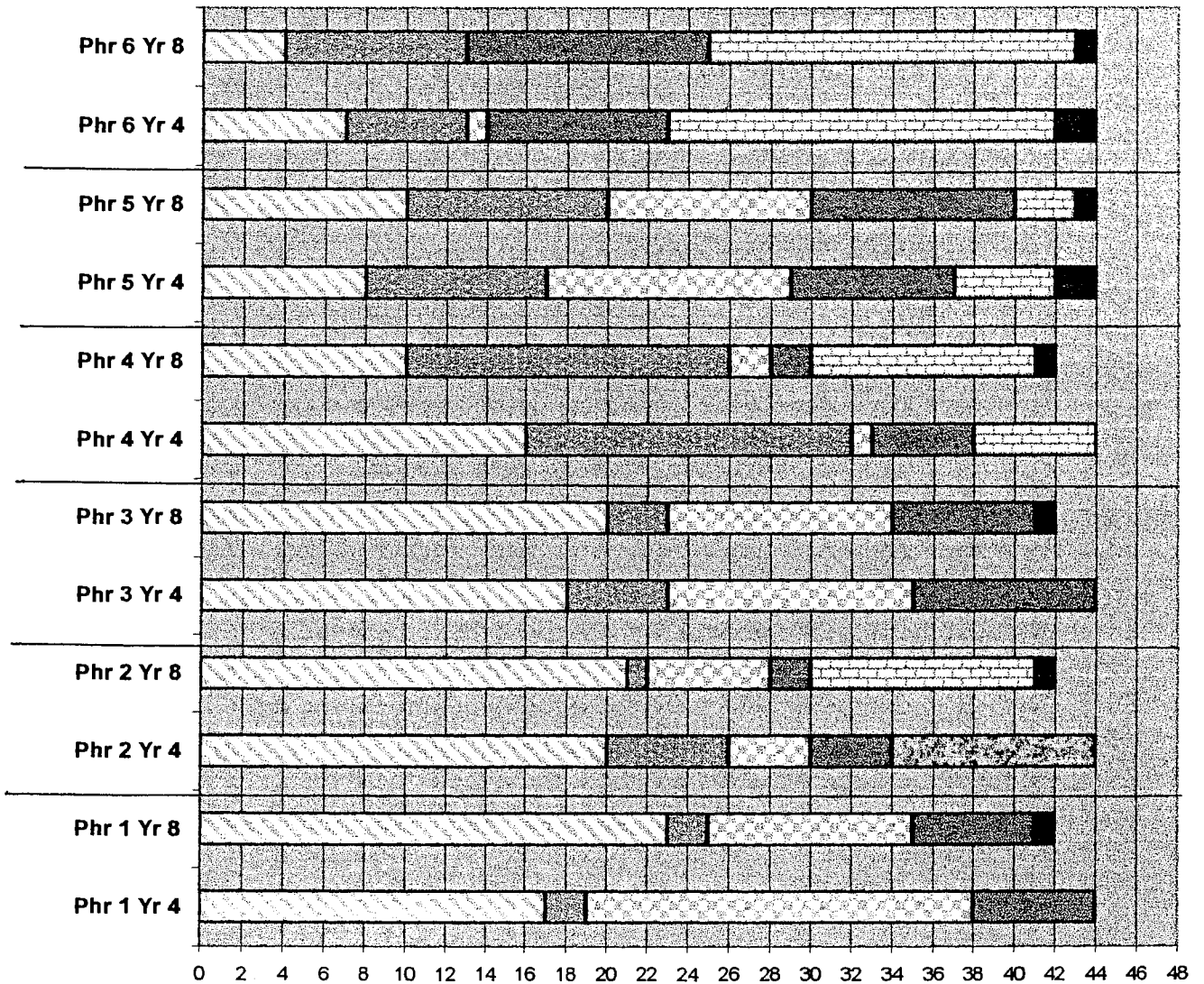
Phrase five

In phrase 5, intonation was the biggest difficulty experienced by students who mostly were unable to sing the interval of the fourth (from G to C). This affected 40 % of year 4 students and 42% at the year 8 level. The higher tessitura was also an issue, with the result that many students sang the phrase in a much lower tessitura.

Phrase six

The tessitura was once again an issue for students in the sixth phrase. Table 4 reveals that many students pitched the first note accurately, but they experienced intonation problems with other notes in the phrase. Many students were unable to pitch the octave interval correctly (D to D') and they mostly sang a fourth or fifth interval instead which affected the entire tune. Consequently many students sang their own version of the tune.

CHART 4
Students' responses to each phrase in the task
"Vocal Sizzle"



	Phr 1 Yr 4	Phr 1 Yr 8	Phr 2 Yr 4	Phr 2 Yr 8	Phr 3 Yr 4	Phr 3 Yr 8	Phr 4 Yr 4	Phr 4 Yr 8	Phr 5 Yr 4	Phr 5 Yr 8	Phr 6 Yr 4	Phr 6 Yr 8
■ No attempt	0	1	0	1	0	1	0	1	2	1	2	1
▨ Creative tune	0	0	10	11	0	0	6	11	5	3	19	18
▩ Pitch & intonation	6	6	4	2	9	7	5	2	8	10	9	12
▧ Tessitura	19	10	4	6	12	11	1	2	12	10	1	0
▦ Intonation	2	2	6	1	5	3	16	16	9	10	6	9
▣ Correct	17	23	20	21	18	20	16	10	8	10	7	4

▣ Correct ▦ Intonation ▧ Tessitura ▩ Pitch & intonation ▨ Creative tune ■ No attempt

Ability to pitch the first note

Many students had difficulty in pitching the first note, and consequently the rest of the phrase was often pitched in a different tessitura. This is reflected in table 2, which indicates how many students were able to pitch the first note, followed by figures showing how many students were able to sing the whole phrase accurately.

In the task “Sing Song” there were more year 8 students able to pitch the first note accurately than the year 4 group. Older students pitched the first note correctly in six out of seven phrases. However a total of less than 50% of the year 8 students were able to pitch the first note accurately.

In the task “Vocal Sizzle” there were more year 4 students who pitched the first note accurately (four out of six phrases). There were also a higher percentage of students who were able to pitch the first note than in the task “Sing Song.” It is possible that the words were a factor that mitigated against the younger students in “Sing Song,” whereas this was not an issue in “Vocal Sizzle.”

TABLE 2

Numbers of students who pitched the first note accurately and those who subsequently sang the rest of the phrase correctly

	<u>SING SONG</u>		<u>VOCAL SIZZLE</u>	
	YEAR 4 (n = 54)	YEAR 8 (n = 38)	YEAR 4 (n = 44)	YEAR 8 (n = 45)
<u>Phrase 1</u>				
1 st note accurate	11	12	18	23
Phrase accurate	6	8	17	23
<u>Phrase 2</u>				
1 st note accurate	12	18	23	21
Phrase accurate	10	11	20	21
<u>Phrase 3</u>				
1 st note accurate	7	11	25	23
Phrase accurate	2	0	18	20
<u>Phrase 4</u>				
1 st note accurate	4	6	26	15
Phrase accurate	1	0	16	9
<u>Phrase 5</u>				
1 st note accurate	9	14	15	17
Phrase accurate	0	1	9	10
<u>Phrase 6</u>				
1 st note accurate	19	8	26	20
Phrase accurate	0	0	7	4
<u>Phrase 7</u>				
1 st note accurate	14	18	N/A	N/A
Phrase accurate	0	0	N/A	N/A

“Sing Song”

1. *“Sticky glue everywhere”*

Most students sang correct intervals, but the majority started the first note on an E instead of an F. As the phrase ended on a D, this might have affected students’ ability to find the correct starting pitch, an interval of a third higher.

2. *“For goodness sake, I got the hippy hippy shake”*

Table 4 reveals that more year 8 students pitched the first note correctly in the second song than in any other of the singing exercises in both tasks. Five students (three at year 4 and 2 at year 8) pitched the first note a tone above, by singing an A. Four year 4 students and six year 8 students pitched the first note on an E, a third below the actual pitch. Since the phrase ended on an E,

these students may have been influenced by that pitch. It was common for students who began on an E to sing the entire phrase a third below the actual pitch. However, two year 8 students began the first note on an E and then sang the rest of the phrase in the correct tessitura.

3. *“They told him don’t you ever come around here”*

Only seven year 4 students and eleven year 8 students were able to pitch the first note accurately (an F#). The most common starting pitches were on an E, F and a C.

4. *“Grandad Murphy comes from Belfast”*

In this phrase, pitching the first note created more difficulty for students at both year levels than any other phrase. As the song ended on an E, the majority of students pitched the first note on an E instead of an F#.

Twelve students (five year 4 students and seven year 8 students) sang the same pattern at the start of this song: E G G G. Nine year 4 students and seven year 8 students pitched the first note more than a third below the correct pitch, while one year 4 student pitched the first note on a D and sang the rest of the phrase correctly.

5. *“One a pecker, two a pecker”*

There were 16% of year 4 students and 36% year 8 students who were able to pitch the first note accurately. A common starting pitch was an E, a third below the starting pitch. Eight year 4 students and five year 8 students sang this note, while five students pitched the first note on an F (three year 4 students and two year 8 students).

It is possible that the combination of the length of this song together with the complex rhythm affected students’ ability not only to pitch the first note, but also to perform the song with any degree of accuracy.

6. *“Hey crocodile”*

Many more year 4 students pitched the first note accurately than year 8 students (nineteen and eight respectively). The most likely explanation for this is that the tessitura was too high for the older students. (The starting pitch was a C’). Five year 8 students pitched the first note on a B, while sixteen started the first note at an interval of a third or more below the actual pitch.

Since many of the year 4 students were familiar with this phrase, the starting pitch would have been a note which they were accustomed to singing.

7. *“Somewhere over the rainbow”*

Among those students who attempted to sing this phrase, more than half at both year levels were able to pitch the first note correctly. There are two possible reasons for this:

- This song was familiar to many students and they were accustomed to either singing it themselves or hearing it being sung.

- The first note was pitched on a D, which is well within the range of the voices of most students at both these year levels.

“Vocal Sizzle”

More students at both year levels were able to pitch the first note correctly in this task than in the task “Sing Song.”

Phrase one

In the first phrase, 51% of year 8 students and 40% of year 4 students were able to pitch the first note accurately. Twelve year 4 students and four year 8 students pitched the first note on a D, an interval of a third below the starting note. Since the phrase ended on a D, it is possible that this confounded their sense of pitch. Nine students pitched the first note on a C (four at the year 4 level and five at the year 8 level). However most students who started at the wrong pitch were able to sing a correct interval of a third.

Phrase two

Since phrase two began and ended on an F, it should have posed no difficulty for students to pitch the first note. However 52% year 4 students and 46% year 8 students were able to pitch the first note accurately. Eight students at the year 4 level and four at the year 8 level pitched the first note on a D, a third below the starting pitch.

Phrase three

More than half of the students were able to pitch the first note in this phrase. However since the phrase ended on an E, this affected seven year four students and two year 8 students who pitched the first note on an E. Another common starting note chosen by 9 students was an F (four year 4 and five year 8 students).

Phrase four

Many more year 4 students than year 8 students were able to pitch the first note. (Twenty-six and fifteen respectively). Five year 8 students began on a B instead of a Bb, while other common first notes that students sang were a C and an A. Twelve students sang the C (seven year 4 and five year 8 students) and eight sang the A (two year 4 and six year 8 students).

Phrase five

The first and last notes of this phrase were both pitched on a G, which should have made it easy for students to pitch the first note. However more students had difficulty with the first note in this phrase than any other in this task. Many students sang an F instead of a G (ten year 4 and eight year 8 students). Another common starting pitch was an E, which was sung by seven year 4 and three year 8 students.

Phrase six

There were more students at the year 4 level who pitched the first note correctly. (Twenty-six year 4 students and twenty year 8 students). It is possible that the last note of the phrase (an A) influenced some of the students' ability to pitch the first note. At the year 8 level, six students started on a G, and six on an A. Most of the other students pitched the first note closer to the D starting note.

Coping with an uncomfortable pitch

For the purposes of analysis, in charts 3 and 4 'tessitura' referred to a correct rendition of the tune, but at a different pitch. However as had already been discussed, many students found it difficult to pitch the first note accurately, which resulted in an entire phrase being rendered in a different tessitura. In almost all of these cases, the tessitura chosen by the students was below the correct pitch rather than above. Students who also experienced intonation problems in their comfortable pitch range, were categorised under the heading 'pitch and intonation' on the charts. Students who created their own version of a phrase were categorised under the heading 'creative tune.'

Thus when we analyse students' comfortable pitch range, we need to take into account the three categories that appear on the charts, which are: 'tessitura,' 'pitch and intonation,' and 'creative tune.' Table 3 shows a composite of these figures together with numbers of students who did not attempt to sing each phrase (these figures are a combination of the categories 'no attempt' and 'read all phrases'). The two sets of figures that appear for each phrase give an indication as to how many students attempted to sing the phrases. It will be noted that in the task "Sing Song" the second set of figures are particularly significant as they highlight once again the degree of difficulty of the task compared to "Vocal Sizzle."

TABLE 3

Number of students who pitched phrases in a different tessitura and numbers of students who did not attempt to sing the phrases

	<u>SING SONG</u>		<u>VOCAL SIZZLE</u>	
	YEAR 4 (n = 54)	YEAR 8 (n = 38)	YEAR 4 (n = 44)	YEAR 8 (n = 45)
<u>Phrase 1</u>				
<i>Tessitura</i>	20	16	25	16
<i>No attempt</i>	21	9	0	1
<u>Phrase 2</u>				
<i>Tessitura</i>	22	8	18	19
<i>No attempt</i>	19	8	0	1
<u>Phrase 3</u>				
<i>Tessitura</i>	8	15	21	18
<i>No attempt</i>	37	11	0	1
<u>Phrase 4</u>				
<i>Tessitura</i>	13	23	12	15
<i>No attempt</i>	36	13	0	1
<u>Phrase 5</u>				
<i>Tessitura</i>	22	22	25	23
<i>No attempt</i>	28	10	2	1
<u>Phrase 6</u>				
<i>Tessitura</i>	16	24	29	30
<i>No attempt</i>	20	7	2	1
<u>Phrase 7</u>				
<i>Tessitura</i>	19	21	N/A	N/A
<i>No attempt</i>	27	7		

The table reveals that in many of the phrases which students attempted to sing, tessitura was an issue. In both tasks the most difficult phrases for all students to sing were those that encompassed the notes C' and D,' that is, phrases six and seven in "Sing Song," and phrases five and six in "Vocal Sizzle."

In the task "Vocal Sizzle" students at both year levels had the least difficulty with phrase four. Since this was the lowest pitched phrase in this task, it is possible that students generally found this to be the most comfortable singing range encompassing the notes Bb to G.

In the task "Sing Song," more students at the year 8 level had difficulties with the tessitura in phrase six than any of the other phrases. It is of interest that fewer year 8 students experienced tessitura problems in phrase seven, despite the fact that this phrase had an even higher note to negotiate. It is possible that the starting note influenced the students' perception of the tessitura. In phrase six the first note begins on a G, whereas in phrase seven, the starting note is on a D on a much lower pitch.

A number of male students at the year 8 level had deep singing voices. There were eleven who participated in the “Sing Song” task and five in the “Vocal Sizzle” task. All of these male students experienced intonation and pitch difficulties, except for one who was able to render five of the six phrases accurately in “Vocal Sizzle.” It is possible that these male students might have fared better had they had an adult male voice as a model. The Assessment Results Manual for 1996 states: “the use of a treble singer as a model proved difficult for some year 8 boys with deep voices.”⁵ However it may also be the case that these male students with deep voices were still in the process of finding their singing voices. This issue is discussed in chapter three.

Summary

“Sing Song” was generally a far more complex task for students than “Vocal Sizzle.” This was particularly evident at the year 4 level with the high numbers of students who made no attempt to sing the phrases. Among those students who did attempt to sing, only a few were able to sing the first two phrases accurately. Phrases three, four and five were sung correctly by only one or two students each, while none of the students were able to sing phrases six and seven correctly.

In contrast “Vocal Sizzle” was attempted by all the students except for one at the year 8 level who did not sing any of the phrases, and two at the year 4 level who did not sing phrases five and six. This task also elicited many accurate renditions, particularly in the first three phrases.

In the task “Vocal Sizzle” more than 50% of the year 4 students were able to pitch the first note in four of the six phrases (phrases two, three, four and six) while the year 8 students fared less well. The majority of these older students were unable to pitch the first note accurately, with the exceptions of phrases one and three, in which 56% managed to sing correct pitches. In contrast the majority of students at both year levels experienced difficulty in pitching the first note in the task “Sing Song.” In both tasks if students were unable to pitch the first note correctly, this often resulted in the entire phrase being sung accurately at a different tessitura. This was particularly noticeable in the first two phrases of “Sing Song” and in phrase one of “Vocal Sizzle.”

In both tasks, students may have felt intimidated by having to sing which possibly accounted for why many students sang the first phrases in their own comfortable range of their voices, at pitches lower than the originals. In phrase two of “Sing Song,” there were many more year 4 students who sang the phrase accurately at a lower pitch. Since so few of these students were able to pitch the first note accurately in this phrase, it resulted in renditions at a lower pitch. The fact that so many of these students were still able to sing correct intervals at the lower pitch, indicates that the phrase was relatively simple in structure.

Students experienced minor intonation difficulties when they were able to sing a phrase in the correct tessitura. The only exceptions noted were the following: (1) phrase four in the task “Vocal Sizzle” in which students at both year levels experienced difficulties and (2) in “Sing Song,” phrase three at the year 8 level and phrase six at the year 4 level.

Generally “Vocal Sizzle” gave many more students opportunities to demonstrate their vocal abilities as well as test their abilities to remember the tunes. As a means of evaluating the students’ level of achievement, this proved to be a far more effective task than “Sing Song.”

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