

Wānangatia te Putanga Tauria
National Monitoring Study
of Student Achievement

Dance
2015 – Key Findings



Wānangatia te Putanga Tauira
National Monitoring Study
of Student Achievement

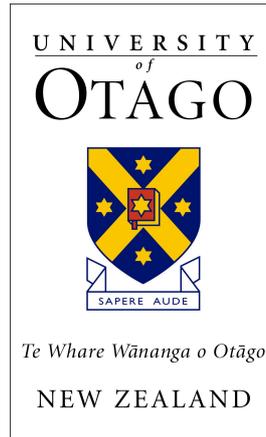
Dance
2015

Key Findings

Educational Assessment Research Unit
and
New Zealand Council for Educational
Research



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Key reports for the Arts 2015

(all available online at <http://nmssa.otago.ac.nz/reports/index.htm>)

- 10.1 The Arts 2015 – Key Findings
- 10.2 Dance 2015 – Key Findings
- 10.3 Drama 2015 – Key Findings
- 10.4 Music - Sound Arts 2015 – Key Findings
- 10.5 Visual Arts 2015 – Key Findings
- 11 Technical Information 2015



National Monitoring Study of Student Achievement Report 10.2: Dance 2015 – Key Findings

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National Monitoring Study of Student Achievement
Educational Assessment Research Unit, University of Otago, PO Box 56, Dunedin 9054, New Zealand
Tel: 64 3 479 8561 • Email: nmssa@otago.ac.nz

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| 2015 Project Team | EARU | NZCER |
|---|--|---|
| Management Team | Ros Allan Alison Gilmore Sharon Young Lynette Jones | Charles Darr Chris Joyce |
| Design/Statistics/ Psychometrics/Reporting | Alison Gilmore Mustafa Asil Megan Anakin | Charles Darr Hilary Ferral Jess Mazengarb Jenny Whatman |
| Curriculum/Assessment | Ros Allan Jane White | Verena Watson Sarah Beresford Juliet Twist Jenny Whatman |
| Programme Support | Lynette Jones Linda Jenkins James Rae Judith Gray Gail Morris Lee Baker | Liesje Stevens |
| External Advisors | Jeffrey Smith – University of Otago Marama Pohatu – Te Rangatahi Ltd | |



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Executive Summary

Introduction

In 2015, the National Monitoring Study of Student Achievement (NMSSA) assessed student achievement at Year 4 and Year 8 in three areas of the New Zealand Curriculum¹ (NZC) – the arts, English: listening and English: viewing. This report presents the key findings for dance as one of the four disciplines described in the arts learning area. As well as reporting students' achievement in and attitudes towards dance, this report provides teachers' and principals' perspectives on teaching and learning within dance. The report accompanies five other reports² that present results and technical information related to the NMSSA study of the arts. For an overview of findings in the arts learning area, including comparisons of findings across the arts disciplines, readers are directed towards the report, *The Arts 2015 – Key Findings*.

Unlike music and visual arts, dance was not monitored previously by the National Education Monitoring Project (NEMP). This is the first time that student achievement in the discipline of dance at Year 4 and Year 8 has been assessed at a national level in New Zealand schools. The findings of the report represent an important baseline to build on.

The arts

The NZC describes the arts as one learning area. However, the curriculum requires that students at Year 4 and Year 8 have access to learning in each of four arts disciplines: dance, drama, music – sound arts (hereafter referred to as music), and visual arts. The arts learning area has four strands that are common to each discipline: understanding the arts in context, developing practical knowledge in the arts, developing ideas in the arts, and communicating and interpreting in the arts. In dance, students must demonstrate specific discipline-related knowledge and skills within these strands in order to make progress.

Study features

NMSSA used a two-step sampling procedure to select 100 schools at each year level and up to 27 students within each school to participate in the study. The nationally representative sample at each year level was made up of about 2,200 students.

A programme was designed to gain a broad, as well as a deep, understanding of achievement across the arts using three assessment components. Table 1 outlines the features of each component and includes, in bold type, the number of students who participated in each one.

¹ Ministry of Education. (2007). *The New Zealand Curriculum*. Wellington: Learning Media.

² *NMSSA Report 10.1: The Arts 2015 – Key Findings; NMSSA Report 10.3: Drama 2015 – Key Findings; NMSSA Report 10.4: Music - Sound Arts 2015 – Key Findings; NMSSA Report 10.5: Visual Arts 2015 – Key Findings; NMSSA Report 11: Technical Information 2015*

Table 1 Features of the components for assessing achievement in the arts

| Assessment programme in the arts | | |
|--|---|--|
| Component | Strands covered | Assessment approach and students participating |
| 1. The Nature of the Arts (NoTA) assessment (all disciplines) | <ul style="list-style-type: none"> • understanding the arts in context • developing practical knowledge in the arts • developing ideas in the arts • interpreting in the arts | <ul style="list-style-type: none"> • Group-administered tasks presented by computer • Completed by all year 4 and year 8 students (about 2,200 at each year level) |
| 2. Performance ratings frameworks in: <ul style="list-style-type: none"> • dance • drama • music • visual arts | <ul style="list-style-type: none"> • developing ideas in the arts • communicating in the arts | <ul style="list-style-type: none"> • Best-fit ratings made by the teachers of the students involved in the NMSSA study using a specially prepared performance ratings framework in each discipline • At each year level, 25 schools were invited to assess one discipline each. Judgements were made for up to 12 students in each school (about 200 students per discipline assessed at each year level) |
| 3. Practical tasks <ul style="list-style-type: none"> • music • visual arts | <ul style="list-style-type: none"> • developing practical knowledge in the arts | <ul style="list-style-type: none"> • Visual arts: students completed a line drawing • Music: students completed three short, applied activities, presented by computer, related to beat, rhythm and recognising chord changes • Tasks were completed by six students per school (about 600 students at each year level) |

The Nature of the Arts (NoTA) assessment focused on achievement across the four arts disciplines and included four tasks related to dance. Scores on the individual NoTA tasks for all disciplines were combined to produce a total score. About 2,200 students at each year level took part in the NoTA assessment.

The performance ratings framework for dance was used by teachers to rate their students against four aspects: ‘show and perform dance to an audience’, ‘explore and create dance’, ‘explore, create and show dance with music’ and ‘talk about own or others’ dance work’. Each aspect was represented by a series of descriptors, each of which represented a level of achievement. For each aspect teachers selected the descriptor that best fitted a student’s level of achievement. The judgements teachers made regarding each aspect were combined to create a total score. At each year level, 25 schools used the performance-rating framework in dance to make judgements for up to 12 of their students. Best-fit ratings were made for about 200 students at each year level.

It was not considered appropriate for the NMSSA teacher assessors to administer practical tasks in dance. The performance ratings framework was considered to be a more valid way of collecting information about practical and creative aspects of dance.

Achievement on the NoTA assessment and on the performance ratings for each discipline were reported on separate measurement scales developed using Item Response Theory that each covered both year levels (five scales in all). The performance ratings framework for dance was called the Performance in Dance (PDa) scale.

Each scale was aligned to the levels of the NZC through a curriculum alignment exercise that defined the minimum scale score (cut-score) associated with achieving, on balance, the achievement objectives outlined at curriculum levels 2, 3 and 4. Students at Year 4 and Year 8 are expected to achieve, on balance, at curriculum levels 2 and 4, respectively.

Other data were collected through questionnaires for students, teachers and principals. Table 2 shows the number of respondents to the sections about dance in each of the questionnaires.

Table 2 Number of respondents to questions related to dance in the student, teacher and principal questionnaires, by year level

| Year level | Questionnaires | | |
|------------|----------------|---------|-----------|
| | Student | Teacher | Principal |
| 4 | 1084 | 117 | 73 |
| 8 | 1046 | 93 | 85 |

Key findings about achievement

Achievement on the Nature of the Arts (NoTA)

At Year 4, 72 percent of students achieved above the minimum score on the NoTA scale associated with achieving curriculum level 2 objectives. At Year 8, 63 percent of students achieved above the minimum score associated with achieving curriculum level 4 objectives.

Girls scored higher on the NoTA, on average, than boys by 9 to 10 scale score units at both year levels.

At both Year 4 and Year 8, Māori and Pasifika students, on average, scored lower than non-Māori and non-Pasifika (by 8 and 6 scale score units at Year 4 and 10 and 7 scale score units at Year 8, respectively).

Achievement on the performance ratings framework for dance

Year 8 students were rated higher, on average, than Year 4 students on each aspect of the performance ratings framework in dance. More girls than boys were rated at the highest level on each aspect.

At Year 4, 77 percent of students received ratings that located their achievement above the minimum score on the PDa scale associated with achieving curriculum level 2 objectives. At Year 8, 68 percent of students received ratings that located their achievement above the minimum scale score associated with achieving curriculum level 4 objectives.

The average score for Year 8 students on the PDa scale was 15 units higher than the average for Year 4 students. This difference indicates that students make, on average, about 4 scale score units of ‘progress’ per year between Year 4 and Year 8. This figure can be used to interpret differences between subgroups. For example, girls scored 4 scale points, on average, higher than boys on the PDa scale at both year levels. The differences were statistically significant and can be understood to represent the amount of ‘progress’ associated with about one year of instruction.

The relatively small number of students that were assessed using the performance ratings framework (about 200 at each year level) did not allow reporting across ethnicity, school type and decile band.

Learning and teaching in dance: attitudes, opportunities and resources

Students’ attitudes to dance

Students indicated how much they agreed with statements related to their attitudes to dance at school. Their responses were used to form an Attitude to Dance scale.

In general, students were relatively positive about learning dance at school and teachers reported that students engaged enthusiastically in dance at school.

Year 4 students were more positive overall than students in Year 8. Girls at both year levels were more positive, on average, than boys.

Pasifika students were more positive, on average, about learning dance than non-Pasifika students at both year levels.

Year 4 students in low decile schools had, on average, a more positive attitude to dance than students in mid or high decile schools. The same trend was also evident at Year 8 but, unlike at Year 4, the differences were not statistically significant.

Achievement on the PDa scale was related to students’ attitudes to dance at both year levels. Students who were less positive about dance scored lower, on average, on the PDa scale at both year levels, than those who were very positive. These differences were statistically significant.

Learning opportunities in dance

Students were provided with a list of opportunities to learn dance at school and asked to indicate how often they were involved in each one. Girls reported more frequent involvement in each of the dance-related learning opportunities at school than boys. As a group, Pasifika students reported more participation in learning opportunities than Year 8 students overall.

Teachers rated how frequently each of the same learning opportunities was made available to students in their school. While most teachers reported that each of the opportunities for students to learn and be involved in dance took place at least once a year, students often indicated that they did not take part in these opportunities.

About 20 percent of students at Year 4, and 15 percent of students at Year 8, reported learning dance outside of school. The proportion of girls learning dance outside of school was much greater than that for boys at both year levels. Students who said they learned dance outside of school were located higher on the PDa scale, on average, than students who didn't at both Year 4 and Year 8. These differences were statistically significant. At both year levels, a greater proportion of girls than boys reported performing dance by themselves or with others outside of school time.

When asked to list regular school-wide arts activities or groups that students could participate in at their school, about one third of Year 4 principals and half of Year 8 principals listed activities that were categorised as having a dance focus. Examples included hip hop, jump jam dance, modern dance, dance groups/lessons, and dance splash/sport. The most frequently listed school-wide arts activities were kapa haka and performance events.

Teacher confidence and engagement

The majority of teachers indicated at least some enjoyment and confidence in teaching dance. At Year 8, the proportions of teachers indicating they didn't feel confident, or didn't enjoy teaching dance were higher than at Year 4. At both year levels, teachers were more likely to agree that they enjoyed taking part in or teaching dance than they were to agree that they were confident in teaching or assessing it. Overall, principals at Year 4 were less confident in their teachers' ability to implement a dance programme than those at Year 8. Principals indicated that at Year 8 specialist teachers mainly or exclusively taught the dance programme in about 50 percent of schools. At Year 4 the corresponding figure was 4 percent.

Professional learning and development

About 60 percent of principals reported that dance had not been a focus area for development in the last five years. The majority of teachers also indicated that they had not received any dance-focused PLD in more than six years. Teachers in Year 4 were more likely than those at Year 8 to indicate that they had never had professional learning opportunities related to dance. A majority of teachers described the professional support they received for teaching dance as poor or very poor.

Resourcing dance

Teachers at Year 4 generally reported less access to spaces for teaching dance than those at Year 8. Access to sound systems and cameras was slightly greater among Year 4 teachers, while access to lighting and costumes or props was greater among Year 8 teachers.

Final comments

Overall, the NMSSA study indicates that Year 4 and Year 8 students achieve reasonably well in dance. This is highlighted by results from the PDa assessment, which showed that 77 percent of Year 4 students and 68 percent of Year 8 students achieved at expected curriculum levels.

The NMSSA study also found that students nationally were generally positive about dance. As a group, Pasifika students reported higher levels of engagement and interest in dance, as well as higher levels of participation in learning opportunities involving dance than non-Pasifika students.

Providing more support to teachers may play a part in improving student outcomes further.

Introduction

This introduction provides a broad overview of the purpose and features of national monitoring, introduces the focus of the study for 2015 and outlines the structure of the dance report.

1. Purpose and features of national monitoring

NMSSA is designed to assess student achievement at Year 4 and Year 8 in New Zealand English-medium state schools. The main purposes of NMSSA are to:

- provide a snapshot of student achievement against the NZC
- identify factors that are associated with achievement
- assess strengths and weaknesses across the curriculum
- measure change in student achievement over time
- provide high-quality, robust information for policy makers, curriculum planners and educators.

NMSSA has a particular focus on Māori students, Pasifika students and students with special education needs.

The study began in 2012 and has been carried out over a five-year cycle. During the first cycle, we are setting the baseline for measuring change in student achievement over time in subsequent cycles.

The study continues the monitoring undertaken by the National Education Monitoring Project (NEMP) between 1995 and 2010. It also complements information generated by international evaluation studies, such as the Trends in International Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS) and the Programme for International Student Assessment (PISA).

In addition to designing and carrying out an assessment programme, NMSSA collects contextual information from students, teachers and principals to help understand the factors associated with students' achievement. This includes: students' attitudes to, and their opportunities to learn in, the specific learning area being investigated; teachers' confidence in teaching the specific learning area and their views on the learning opportunities provided to students in classroom programmes; teachers' and principals' views of the professional and curriculum support provided by the school and the provision in the school for the learning area.

The project is supported by advisory panels of curriculum experts³, reference groups for the priority learner groups (Māori, Pasifika and special education needs) and a technical reference group.

³ The arts advisory panel comprised arts discipline experts, advisors, teacher educators and researchers as well as classroom teachers and representatives of the Ministry of Education.

2. The focus of the study for 2015

In 2015, the focus for the NMSSA study was English: listening⁴, English: viewing⁵, and the arts. The assessment programme for the arts involved three major elements. Firstly, nationally representative samples⁶ of about 2,200 students from 100 schools at each of Year 4 and Year 8 took part in a group-administered assessment that focused on the arts as a multidisciplinary learning area. It was called the Nature of the Arts (NoTA) assessment. Secondly, teachers who were employed in each school used specially prepared judgment frameworks to rate students on different aspects of their performance skills. In each school performance ratings were made for up to 12 of the students involved in the study in one arts discipline (dance, drama, music – sound arts (hereafter referred to as music) or visual arts). In total, about 200 students at each year level received teacher-assessed performance ratings in each arts discipline. Thirdly, about 600 students at each year level (six in each school) undertook a series of short practical tasks in music and visual arts. In each school, both the short practical tasks and the NoTA were administered by specially trained, visiting teacher assessors.

Contextual data related to the arts was collected using separate questionnaires for students, teachers and principals. Half of the students answered questions related to music and drama and the other half to questions related to visual arts and dance. At least one teacher from each school completed a teacher questionnaire and at least 85 percent of principals responded to a principal questionnaire.

All data was collected during Term 3 (July to September 2015).

3. Structure of the dance report

This report provides the key findings related to dance, drawing on data from the 2015 NMSSA study of the arts. The report is set out in four chapters.

Chapter 1 provides a broad overview of the NMSSA programme in the arts.

Chapter 2 describes the NoTA assessment and summarises the results. It includes information about the content of the NoTA that was focused on dance.

Chapter 3 presents the findings related to the performance ratings in dance. It reports achievement against the levels of the arts curriculum. It also compares achievement between Year 4 and Year 8 students, and by gender.

Chapter 4 uses the data collected from student, teacher and principal questionnaires to report on students' attitudes and opportunities to learn in dance, and the teaching and resourcing of dance.

The report also contains an appendix providing tables of results. Other background and technical information is contained in the separate report *Technical Information 2015*⁷.

The report complements *The Arts 2015 – Key Findings*⁸. The arts report provides an overview of the arts assessment programme and includes detailed results from the NoTA assessment.

Three other discipline reports⁹ provide reporting on each of the other arts disciplines (drama, music and visual arts).

⁴ The findings for English: listening can be found in *NMSSA Report 8: English: Listening 2015 – Key Findings*.

⁵ The findings for English: viewing can be found in *NMSSA Report 9: English: Viewing 2015 – Key Findings*.

⁶ Information about the sampling process and the achieved samples can be found in Appendix 1 of *NMSSA Report 11: Technical Information 2015*.

⁷ *NMSSA Report 11: Technical Information 2015*.

⁸ *NMSSA Report 10.1: The Arts 2015 – Key Findings*.

⁹ *NMSSA Report 10.3: Drama 2015 – Key Findings; NMSSA Report 10.4: Music - Sound Arts 2015 – Key Findings; NMSSA Report 10.5: Visual Arts 2015 – Key Findings*.

1 Dance in the NMSSA Arts Assessment Programme

This chapter provides an overview of the NMSSA assessment programme for the arts. Special attention is paid to the aspects of the programme related to dance. The chapter includes four parts:

- Part 1 describes the arts learning area in the New Zealand Curriculum¹⁰ (NZC), and dance in particular.
- Part 2 describes previous monitoring in the arts by the National Educational Monitoring Project.
- Part 3 describes the NMSSA arts assessment programme.
- Part 4 provides information about how the findings are presented.

1. The arts as a learning area

The NZC describes the arts as one learning area. However, each of the four arts disciplines (dance, drama, music and the visual arts) has its own distinctive body of knowledge, concepts and modes of enquiry, and its own forms or genres, styles, conventions and processes. The curriculum requires that students at Years 4 and 8 have access to learning in each of the arts disciplines. Even though each arts discipline is organised with four common strands in the curriculum, for students to make progress, they must demonstrate specific discipline-related knowledge and skills. The four common strands included: understanding the arts in context, developing practical knowledge in the arts, developing ideas in the arts, and communicating and interpreting in the arts. How the strands are incorporated in the learning process varies across disciplines and in emphasis across year levels.

Dance

The NZC¹¹ defines dance as follows:

Dance is expressive movement that has intent, purpose, and form. In dance education, students integrate thinking, moving, and feeling. They explore and use dance elements, vocabularies, processes, and technologies to express personal, group, and cultural identities, to convey and interpret artistic ideas, and to strengthen social interaction. Students develop literacy in dance as they learn about, and develop skills in, performing, choreographing, and responding to a variety of genres from a range of historical and contemporary contexts.

2. Students' previous arts achievement in New Zealand

The National Education Monitoring Project (NEMP) was carried out by the University of Otago for the Ministry of Education and ran from 1995 to 2010. Between 1996 and 2008 NEMP conducted monitoring in music and visual arts at Year 4 and Year 8 every four years using NEMP frameworks based on national curriculum documents.

Unlike music and visual arts, dance was not previously monitored by the NEMP. The NMSSA study reported here is the first time that student achievement in the discipline of dance has been assessed at Year 4 and Year 8 at a national level in New Zealand schools. The findings of the report represent an important baseline to build on.

¹⁰ Ministry of Education. (2007). *The New Zealand Curriculum*. Wellington: Learning Media.

¹¹ *The New Zealand Curriculum*, p.20.

3. NMSSA arts programme

Components of the arts programme

The arts programme was designed to address the multidisciplinary nature of the arts as a learning area. Table 1.1 outlines the five components that made up the programme and includes, in bold type, the number of participants in each one.

Table 1.1 The five components of the 2015 NMSSA arts programme

| Component | Discipline and strand/focus | Assessment approach and number of participants |
|---|---|---|
| 1. The Nature of the Arts (NoTA) | Across dance, drama, music and visual arts: <ul style="list-style-type: none"> • understanding the arts in context • developing practical knowledge in the arts • developing ideas in the arts (visual arts only) • interpreting in the arts | <ul style="list-style-type: none"> • Group-administered tasks presented by computer • Completed by all year 4 and year 8 students (about 2,200 at each year level) |
| 2. Performance ratings frameworks | For dance, drama, music and visual arts: <ul style="list-style-type: none"> • developing ideas in the arts • communicating in the arts | <ul style="list-style-type: none"> • Teachers of a sub-sample of the students involved in the NMSSA study made best-fit judgements of student performance in each discipline using a rating scale framework • At each year level, 25 schools were invited to assess one discipline each. Judgements were made for up to 12 students in each school (about 200 students per discipline assessed at each year level) |
| 3. Practical tasks | For music and visual arts: <ul style="list-style-type: none"> • developing practical knowledge in the arts | <ul style="list-style-type: none"> • Visual arts: students completed a line drawing • Music: students completed three short, applied activities, presented by computer, related to beat, rhythm and recognising chord changes • Tasks were completed by six students per school (about 600 students at each year level) |
| 4. Student questionnaire | <ul style="list-style-type: none"> • Student attitudes to dance, drama, music and visual arts • Student reports of opportunities and experiences at school in dance, drama, music and visual arts | <ul style="list-style-type: none"> • Computer-based student questionnaire • Half of the students responded to dance and visual arts; half responded to drama and music • About 1,100 students at each year level |
| 5. Teacher and principal questionnaires | <ul style="list-style-type: none"> • Teacher and principal views of arts instruction in their school. • Teacher confidence as art educators. • Professional learning and development in the arts. • Provision for teaching the arts in the school . | <ul style="list-style-type: none"> • Paper-based questionnaires • Half of the teachers responded to dance and visual arts; half responded to drama and music • About 100 teachers and 100 principals at each year level |

To address the breadth of the arts learning area, three components focused on assessing student achievement in the arts: the NoTA assessment, performance ratings and the practical tasks. Note that the focus of each assessment component emphasised different aspects of the strands of the NZC. In particular, the strand ‘communicating and interpreting in the arts’ was subdivided into ‘interpreting in the arts’ for the NoTA assessment and ‘communicating in the arts’ for the performance ratings.

The two remaining components focused on collecting contextual and attitudinal information about the arts, including questions specifically about dance, from students, teachers and principals using questionnaires.

Component 1: The Nature of the Arts (NoTA) assessment

Because the arts is a multidisciplinary learning area, achievement in the arts was assessed with a group-administered assessment that included tasks related to each of the four arts disciplines and primarily emphasised aspects of three strands of the curriculum: understanding the arts in context, developing practical knowledge in the arts, and interpreting in the arts. The NoTA assessment was presented mainly by computer and administered to about 2,200 students at each year level. It included a mixture of selected-response and open-ended short response questions. Students wrote their answers to the short response questions in a booklet. An example of a dance task used in the NoTA assessment is shown in Chapter 2.

Item Response Theory (IRT)¹² was used to locate each student's overall combined score on the NoTA tasks on a measurement scale (the NoTA scale). A curriculum alignment exercise was used to link NoTA scale scores to curriculum expectations.

Component 2: Performance ratings

To provide important achievement information about each of the separate arts disciplines, NMSSA constructed performance ratings frameworks for dance, drama, music and visual arts. These frameworks emphasised aspects of two strands of the curriculum: developing ideas in the arts and communicating in the arts. The performance ratings involved teachers making judgements about the performance of their students using a series of descriptors.

Each school was asked to complete performance ratings for up to 12 students in one arts discipline only with 25 schools using each set of rating descriptors at each year level. As a result, teachers completed performance ratings for about 200 students in each arts discipline at each year level.

To develop the frameworks, a series of workshops were held where experienced teachers and curriculum specialists identified indicators of students' progress, cross-referenced by possible contexts. Using iterative consensus moderation procedures, these indicators were validated by participating teachers in their own and other teachers' classrooms and, subsequently, the indicators were refined in consultation with curriculum specialists.

Table 1.2 shows how the performance ratings framework for dance was divided into four aspects.

Each aspect was represented by several described levels of achievement. The descriptions outlined what teachers should be able to observe if a student was working at that level.

Table 1.2 Aspects of the performance ratings for dance

| Aspect |
|---|
| Explore and create dance |
| Show and perform dance to an audience |
| Explore, create and show dance with music |
| Talk about own or others' dance work |

Performance rating scale construction and reliability

IRT was used to construct measurement scales for performance ratings in dance, drama, music and visual arts. The Performance in Dance (PDa) scale had a reliability index of 0.93. This indicates that students are located on the scale with a satisfactory level of precision.

Component 3: Practical assessment tasks

To complement the performance ratings, a small number of practical tasks was used to assess music and visual arts. These tasks emphasised one strand of the curriculum: developing practical knowledge in the arts. Practical tasks were not administered in dance and drama. The NMSSA team considered that it was inappropriate to ask students to perform in front of an unfamiliar teacher assessor in dance and drama. The performance ratings framework was considered to be a more valid way of collecting information about practical aspects of dance.

¹² IRT is an approach to constructing and scoring assessments and surveys that measure mental competencies and attitudes. IRT seeks to establish a mathematical model to describe the relationship between people (in terms of their levels of ability or the strengths of their attitude) and the probability of observing a correct answer or a particular level of response to individual questions. IRT approaches provide flexible techniques for linking assessments made up of different questions to a common reporting scale. The common scale allows the performance of students to be compared regardless of which form of the assessment they were administered.

Component 4: Student attitudes

The fourth component of the NMSSA arts programme included questions about students' attitudes to drama, dance, music and visual arts.

To reduce the response burden on students, two forms of the questionnaire were created. One questionnaire covered the disciplines of dance and visual arts. The second questionnaire covered the disciplines of drama and music. Schools were randomly allocated to either dance and visual arts, or drama and music. All students responded to one of the computer-based student questionnaires.

Attitude scale construction and reliability

IRT was used to construct four reporting scales based on the responses to the attitude statements for each arts discipline in the main study. As with the other NMSSA scales, the Attitude to Dance scale was set to have an average of 100 scale score units and an average standard deviation of 20 scale score units for a year level. The reliability index of the Attitude to Dance scale was 0.86.

Component 5: Teacher and principal perspectives on the arts

Separate questionnaires were developed for teachers and principals to ask about their perspectives on the learning and teaching of the arts.

There were two forms of the teacher questionnaire. One questionnaire covered the disciplines of dance and visual arts. The second questionnaire covered the disciplines of drama and music. As for the student questionnaires, schools were randomly allocated to either dance and visual arts, or drama and music. The questionnaire included sections asking teachers about their preparedness and support to teach the discipline, students' opportunities to learn, and their own opportunities to undertake professional learning. Up to three teachers from each school were asked to fill in a teacher questionnaire. The teachers chosen were those who had the most students participating in NMSSA assessment, and/or were specialist teachers of one of the two arts disciplines covered by their questionnaire. Classroom teachers completed the sections relating to disciplines they had at least some responsibility for teaching; specialist teachers completed their respective discipline section.

The principals' questionnaire asked principals about the school-wide programme in the arts and each of the disciplines.

In total, 117 Year 4 teachers and 73 Year 8 teachers responded to the sections of the teacher questionnaire related to dance. The total number of respondents to the principal questionnaire was 178; 93 from Year 4 and 85 from Year 8.

4. Presentation of the findings

This section describes how graphs and tables are used to present findings in the report, and includes an explanation of some of the statistics used.

Box plots

Box and whisker plots (box plots) are used to summarise score distributions.

To construct a box plot, scores are ordered from low to high and then divided into four groups of equal size, called quartile groups. These are shown in Figure 1.1.

The box is used to show the range of the middle 50 percent of the scores and the whiskers the top and bottom 25 percent of scores. In this report, the whiskers of the box plot do not include outliers (scores considered to be rare and unusual) and have a maximum length of 1.5 multiplied by the inter-quartile (middle 50 percent) range.

When box plots for two or more groups are presented as part of the same graphic, the widths of the boxes are used to represent the relative sizes of the groups. For instance, a narrow box indicates that the group size is smaller than that represented by a wider box in the same plot. Box plots have not been drawn when the size of the group falls below 30 students.

The colours for the box plots have been chosen to assist with readability. Different hues have been selected to represent each of the reporting groups (for instance, gender) and two different shades of each hue chosen to represent the group at each year level (a lighter shade for Year 4 and a darker shade for Year 8). The intention behind the use of shades was to show the relationships between the year levels and the different reporting group types at the same time.

For plots involving the achievement scales, the minimum scale score associated with achieving the curriculum objectives at each of curriculum levels 2 to 4 are indicated by the grey horizontal dotted lines across the graph as shown in Figure 1.2.

Line graphs of score distributions

Another type of graph used to display data is the line graph as shown in Figure 1.3. Line graphs are used to show how the distributions of scores for Year 4 and Year 8 compare with curriculum expectations. Horizontal shaded lines are used to indicate the 'cut-scores' used to separate achievement at one curriculum level from another. The shading around the lines provides a reminder that these lines represent the result of a judgement exercise (the curriculum alignment process).

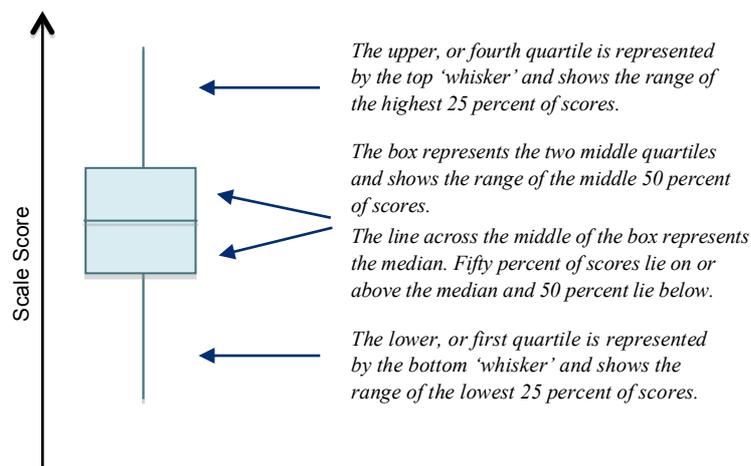


Figure 1.1 Understanding box plots

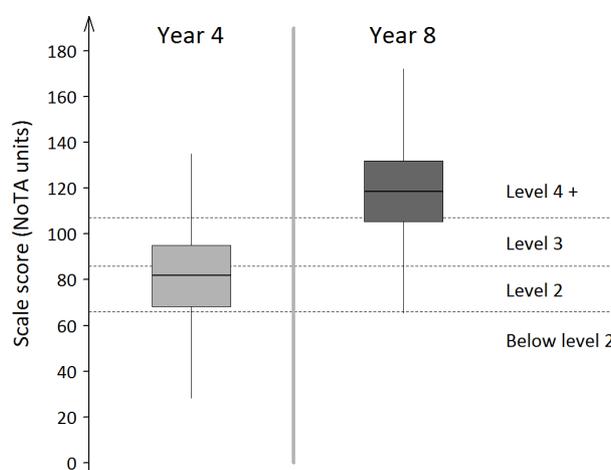


Figure 1.2 Interpreting box plots

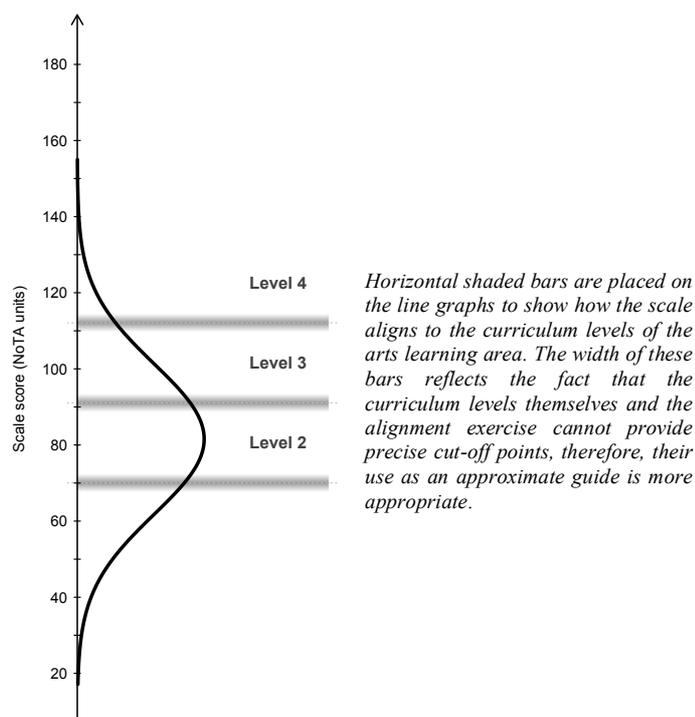


Figure 1.3 An example of a line graph

Tables of numerical results

The scale score measures developed for the NMSSA arts study quantifies achievement differences in terms of scale score units. Because the same scale has been used at both Year 4 and Year 8 it is possible to estimate how much change, on average, occurs on an annual basis. Table 1.3 shows the differences in average scale scores on the NoTA scale between Year 4 and Year 8, and how this relates to annualised change. As can be seen, scores increased, on average, by about 9 scale score units per year.

Table 1.3 Average difference in scale score units on the NoTA assessment between Year 4 and Year 8

| | Nature of The Arts |
|---|--------------------|
| Difference in average scale score (Year 8 – Year 4) | 37 |
| Confidence interval | (35.5, 38.5) |
| Average annual change | 9 |
| Average annual effect size | 0.46 |

Table 1.3 also shows the 95 percent confidence interval associated with the difference in average scores at Year 4 and Year 8. Confidence intervals are used throughout the report and provide a range within which we can be fairly sure the population value for the reported statistic lies. The confidence intervals have been adjusted to account for any design effect created through the sampling procedure (i.e. sampling schools and then sampling students). As a general rule of thumb, when the confidence intervals for two groups overlap, any difference between the groups may reasonably be explained by the kind of random variation that occurs in sampling studies (i.e. the difference between the groups is **not** considered to be statistically significant).

In some cases, the difference in average scores between two groups has been calculated and a confidence interval for that difference presented. When a confidence interval for a difference does not include zero, this difference can be considered to be statistically significant.

Where statistically significant differences appear in tables in this report they are presented in bold font. For instance, in the table above, the Year 8–Year 4 difference of 37 scale score units is in bold font – the difference is considered to be statistically significant.

Effect sizes have been used to help interpret differences between groups. An effect size quantifies the difference between the average scores for two groups in terms of standard deviation units. The calculation of the effect sizes in this report weights the standard deviation for each group by its sample size¹³. Because the standard deviations for groups are often different, this can mean that the same difference in scale score units results in slightly different effect sizes for different pairs of groups. When comparing two effect sizes, it is very important to refer back to the scale score differences to make sure any interpretations are valid.

The use of rounding

In the tables and text presented in this report, the average scores for each group and subgroup have been rounded to whole numbers. Some tables of findings report the difference between average scale scores for two groups or subgroups. These differences have been calculated using the non-rounded averages and are numerically correct. In some cases, the difference reported may not be the same as the simple difference between the pair of rounded averages shown in the table. All confidence intervals have been rounded to the nearest half scale score unit or percentage point.

¹³ The formula for the effect size calculation is: $\frac{M_1 - M_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}}$, where M_1 and M_2 represent the average scores for group 1 and group 2, s_1 and s_2 their standard deviations, and n_1 and n_2 the number in each group.

2 Nature of the Arts Assessment

This chapter describes the Nature of the Arts (NoTA) assessment and includes information about the content of NoTA related to dance. The chapter includes two parts:

- Part 1 illustrates how dance was included as part of the NoTA assessment
- Part 2 summarises students’ arts achievement on the NoTA assessment.

1. Dance as part of the NoTA

The NoTA assessment contained a total of 17 tasks that represented the four disciplines. Each task included a set of items based on one theme or idea. Criteria were used to mark each item. Items were scored dichotomously (0 or 1) or using scales that ranged from 0 to 1, 0 to 2, or 0 to 3. Table 2.1 shows the breakdown of the number of tasks, items and score points for each arts discipline in the NoTA assessment.

Table 2.1 Number of tasks and items in the NoTA assessment, by strand and discipline

| Discipline | Number of tasks <i>N</i> = 17 | Number of items* <i>N</i> = 45 | Number of tasks covering each strand | | | |
|-------------|----------------------------------|-----------------------------------|--------------------------------------|--|------------------------------|--------------------------|
| | | | Understanding the arts in context | Developing practical knowledge in the arts | Developing ideas in the arts | Interpreting in the arts |
| Dance | 4 | 12 | 3 | 2 | 0 | 3 |
| Drama | 3 | 11 | 1 | 3 | 0 | 3 |
| Music | 6 | 11 | 1 | 5 | 0 | 1 |
| Visual Arts | 4 | 11 | 4 | 3 | 4 | 4 |

* Some items covered more than one strand.

There was a balanced coverage of each discipline within the NoTA assessment in terms of the number of items asked. However, the relative emphasis of each strand varied between disciplines. For example, the strand, understanding the arts in context, was more strongly emphasised in dance and visual arts than in drama and music. Only the tasks in visual arts represented the four strands of the curriculum. Table A8.3 of the *Technical Information 2015* report sets out the focus of each task by strand.

The NoTA scale

An Item Response Theory (IRT) approach was used to construct a measurement scale for the NoTA assessment. The scale allowed the total score on the NoTA assessment for each Year 4 and Year 8 student to be located on the same scale. The scale was standardised so that 100 scale score units represents the combined average score for Year 4 and Year 8, and 20 scale score units is equal to the average standard deviation for a year level.

A curriculum alignment exercise was undertaken to link achievement ranges on the NoTA scale to levels of the curriculum. Creating this link allowed scale scores to be reported in terms of curriculum levels. In the NZC, each of the first four curriculum levels was designed to represent about two years of learning at school. In general, the expectations are that students in Year 4 will, on balance, achieve Level 2 objectives by the end of the year, and that students in Year 8 will, on balance, achieve Level 4 objectives by the end of the year. The alignment exercise focused on defining the minimum scores (cut-scores) on the NoTA scale associated with achieving curriculum level 2, 3 and 4 objectives. The exercise is described in Appendix 5 of *Technical Information 2015*.

Item Map

Figure 2.1 provides an item map that shows where each of the tasks in the NoTA assessment was located on the NoTA scale. Each task is represented by a coloured rectangle, with the dots within each rectangle representing the items that made up the task¹⁴. Items located at the upper end of the scale were more difficult than items at the lower end of the scale. The item map shows that, with the exception of two music items, the items across the disciplines were located in a similar range of difficulty. As can be seen, four different tasks in the NoTA assessment were focused on dance.

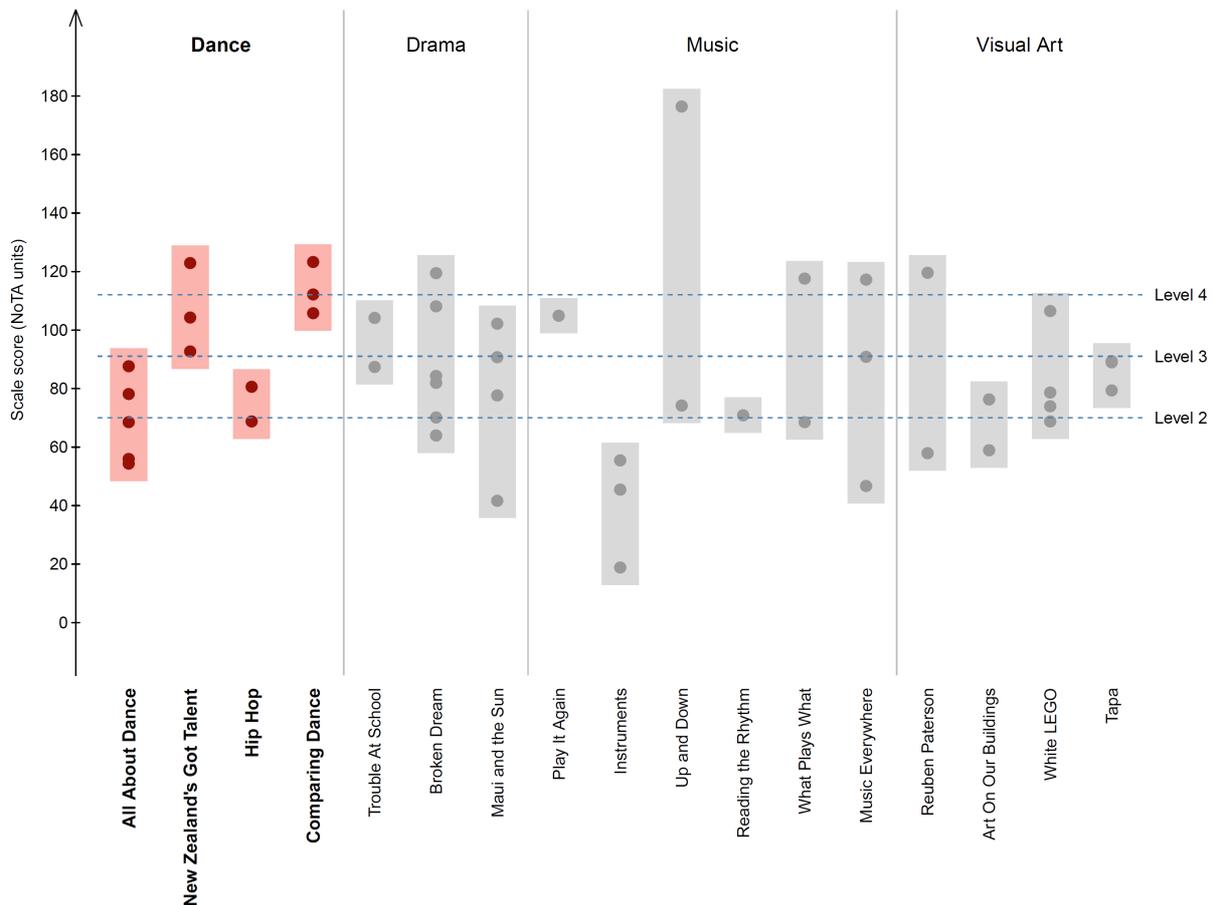


Figure 2.1 Item map for the NoTA assessment

¹⁴ Sometimes more dots representing items are shown in the item map than are recorded in Table 2.1. This is because in a small number of cases an item was 'split' into a Year 4 version and a Year 8 version. Both versions are shown on the item map.

Example of a Nature of the Arts assessment task in dance

In the task called *Hip Hop* students were asked to respond to questions about a video clip of a dance performance. The main features of the task are shown in Figures 2.2 and 2.3. The *Hip Hop* task contained two items. The first item required students to identify features of a particular style of dance. The second item required students to give reasons to show understanding about the dance culture and context. For each item, the focus of the item is identified along with the scoring guide and examples of students' responses.

| Curriculum Strand: Understanding the arts in context | |
|---|--|
| <p>Item 1. The video clip shows some students doing a style of dance called Hip Hop. Name three things that make this dance style Hip Hop.</p> |  |
| Focus: Recognises dance from different times, places and cultures, and identifies some distinguishing features | |
| Scoring guide | Student responses |
| 0: Inappropriate response or student is unable to respond | 'I don't know.' |
| 1: Identifies one or two different things specific to Hip Hop | 'Dancers wear street clothes.' 'It has lots of footwork.' 'They dance to hip hop music.' 'Dancers show attitude.' 'They move in unison.' |
| 2: Identifies three different things specific to Hip Hop | (From the list above) |

Figure 2.2 Item 1 of the NoTA task *Hip Hop*

| <p>Item 2. In the video clip you saw Hip Hop dance performed on a stage; it is also performed on the streets. Give <u>two</u> different reasons why Hip Hop might be performed on the streets.</p> | |
|---|---|
| Focus: Recognises dance from different times, places and cultures, and identifies some distinguishing features Describes how dance is used for different purposes | |
| Scoring guide | Student responses |
| 0: Inappropriate response or unable to respond | 'I'm not sure.' |
| 1: Student gives simple reasons | 'To earn money by busking.' 'To have fun.' 'To entertain people.' 'So people can see it.' 'May have nowhere else to go.' 'To show their talent.' 'To show off to their friends.' |
| 2: Student gives deeper reasons specific to Hip Hop and street culture (global ideas) | 'Can use things in their surroundings like steps or benches.' 'People might video it and it might go viral on the internet.' 'The people who like it might not have money to pay to go and see.' 'It encourages other people to join in.' 'You can share your stories with your community.' 'It started on the streets.' |

Figure 2.3 Item 2 of the NoTA task *Hip Hop*

NoTA scale description

Figure 2.4 provides a description of dance skills and knowledge measured by the NoTA scale. The description was developed directly from student responses to the dance tasks in the NoTA assessment tasks. The complete description of the NoTA scale across the four disciplines is contained in the report, *The Arts 2015 – Key Findings*. Readers are encouraged to refer back to the descriptions when considering the meaning of the NoTA scale scores.

To create the scale description, the scoring categories for each question (0, 1 or 2 for instance) in the NoTA assessment were located on the scale. This meant identifying where the students who scored in each category were most likely to have achieved overall on the scale. For example, the scoring category ‘1’ for item 1 of the dance task *Hip Hop* (shown in Figure 2.2) was located at the part of the scale where students who scored a ‘1’ on that item were most likely to have achieved overall. Once this had been done for all questions, the descriptors that defined each scoring category were examined. The NMSSA team identified the competencies expected as the scale locations associated with the different scoring categories increased, and students’ responses became more sophisticated. The result was a five-part description, providing a broad indication of what students typically know and can do in dance when achieving at different places on the scale.

The description is provided to give readers a strong sense of how the discipline of dance was assessed within the Nature of the Arts assessment. The scale descriptors have not been written to necessarily ‘line up’ with curriculum levels or achievement objectives. They are a direct reflection of what was assessed and how relatively hard or easy students found the content of the assessment.

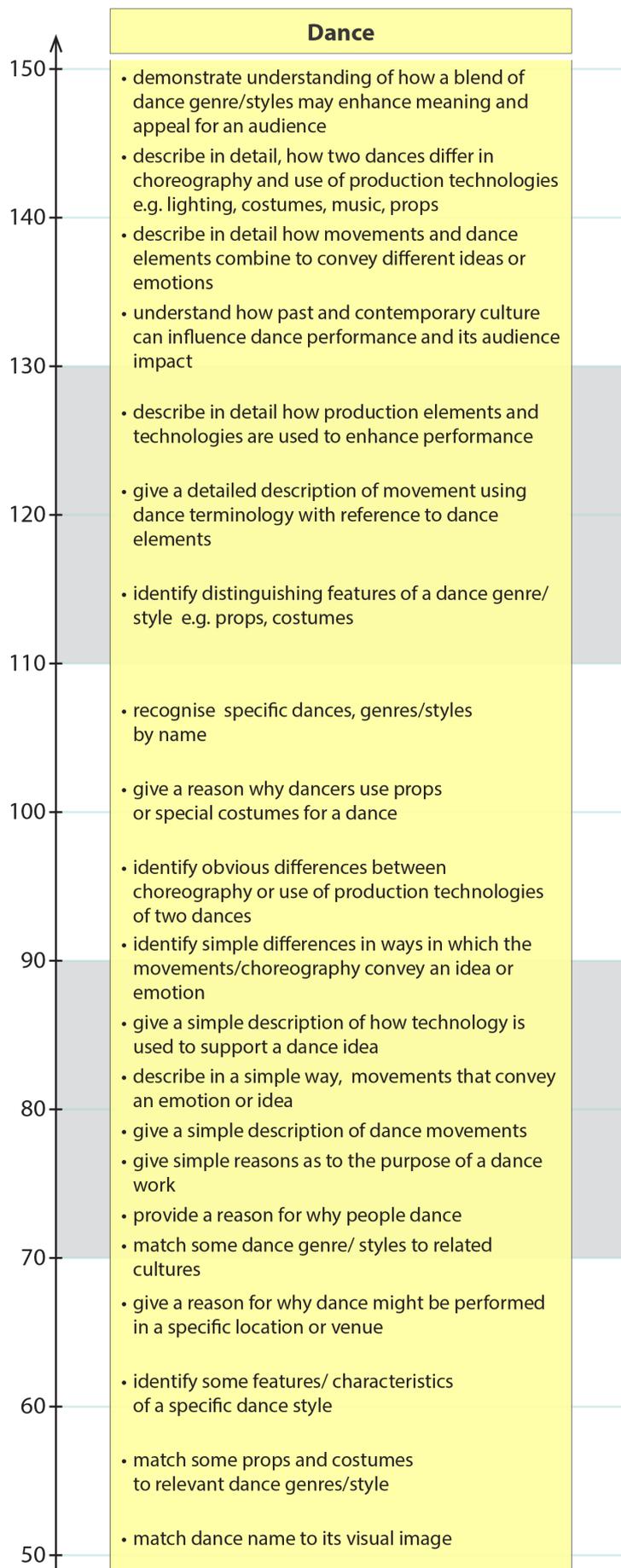


Figure 2.4 Description of dance skills and knowledge on the NoTA scale

2. Achievement on the NoTA scale

This section summarises how students in Year 4 and Year 8 achieved on the NoTA assessment. Readers are reminded that the NoTA included material from across the four arts disciplines and the results reported here represent achievement on the NoTA as a whole.

Figures 2.5 and 2.6 use line graphs to show the whole score distribution for Year 4 and Year 8, respectively, against the agreed alignment of curriculum levels 2, 3 and 4 with the NoTA scale. The grey horizontal lines represent the cut-scores associated with curriculum levels 2, 3 and 4.

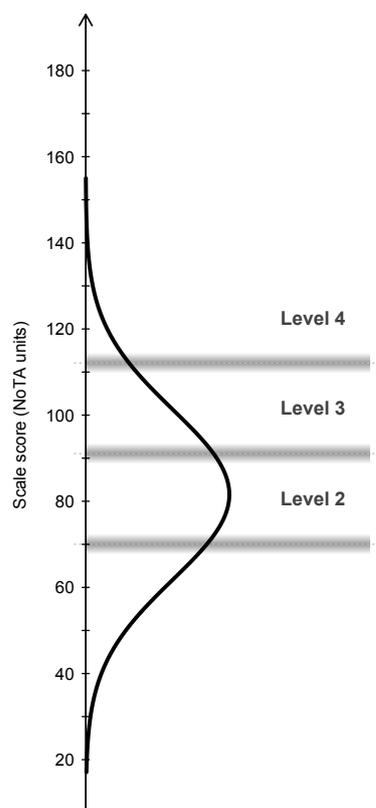


Figure 2.5 Distribution of scores for Year 4 students on the NoTA scale against the NZC levels for the arts

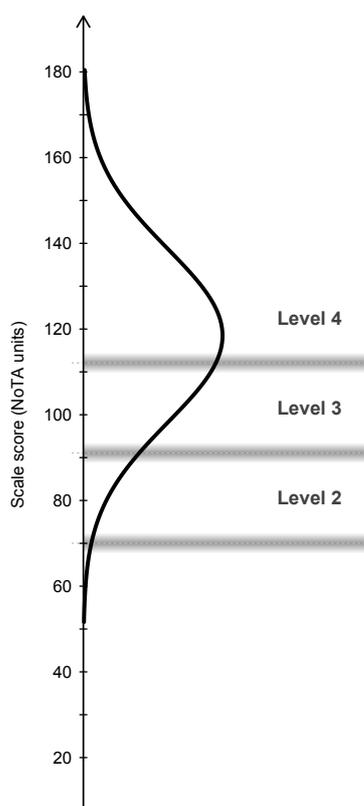


Figure 2.6 Distribution of scores for Year 8 students on the NoTA scale against the NZC levels for the arts

Table 2.2 provides summary statistics from the NoTA assessment for each year level. On average, Year 8 students scored higher than Year 4 students by 37 NoTA units. This year level difference in average scale score represents an annualised difference of about 9 NoTA units with an annualised effect size of 0.46. We can use the 9 NoTA units to represent roughly one year of instruction.

Table 2.2 Summary statistics for Year 4 and Year 8 students from the NoTA assessment

| | Nature of the Arts | | |
|-------------------------------------|--------------------|--------------------|---|
| | Year 4 N = 2224 | Year 8 N = 2192 | Difference between Year 8 and Year 4 |
| Average scale score | 82 | 118 | 37 |
| Confidence interval for the average | (80.5, 82.5) | (117.5, 119.5) | (35.5, 38.5) |
| Standard deviation | 20 | 20 | |
| Average annual effect size | | | 0.46 |

Figures 2.7 and 2.8 display the score distributions on the NoTA scale at Year 4 and Year 8, respectively, by gender and ethnicity¹⁵.

Girls scored higher, on average, than boys by 9-10 scale units at both year levels. The difference was statistically significant at both year levels. Based on the difference in average scores for students in Year 4 and Year 8, this difference between boys and girls is equivalent to roughly one year of instruction,

At both Year 4 and Year 8, Māori and Pasifika students, on average, scored lower than non-Māori and non-Pasifika students (by 8 and 6 NoTA scale units at Year 4, and 10 and 7 NoTA scale units at Year 8, respectively). These differences were statistically significant.



Figure 2.7 Distribution of scores for Year 4 students on the NoTA scale, by gender and ethnicity (NZE=NZ European)

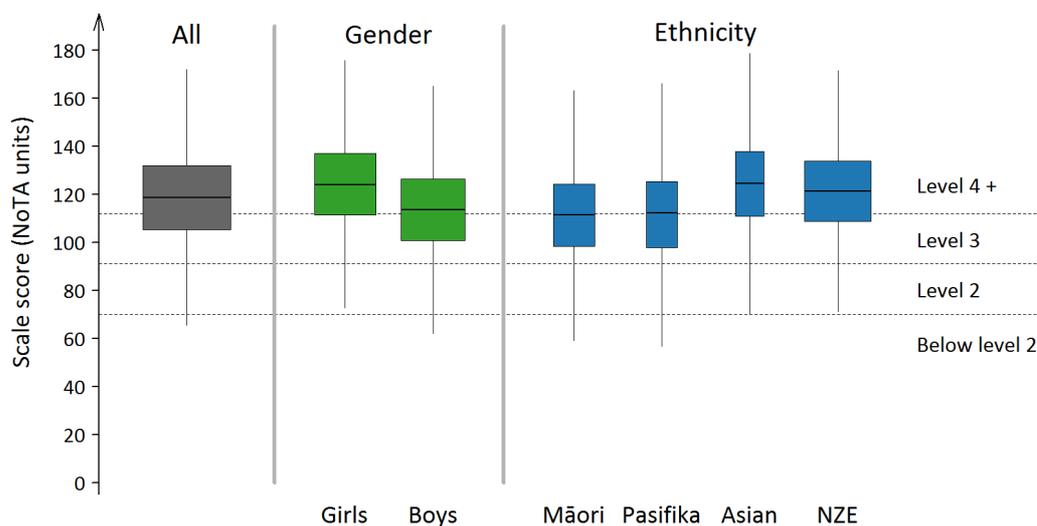


Figure 2.8 Distribution of scores for Year 8 students on the NoTA scale, by gender and ethnicity (NZE=NZ European)

¹⁵ Non-prioritised ethnicity was used where students could identify with up to three ethnicities. This meant they could be present in multiple ethnic groups. Student ethnicity data were obtained from National Student Number information held on the Ministry of Education ENROL database. The 'NZ European' category included NZ Pākehā only. The 'Pasifika' category included Tokelauan, Fijian, Niuean, Tongan, Cook Islands Māori, Samoan and other Pacific peoples. The 'Asian' category included Filipino, Cambodian, Vietnamese, Other Southeast Asian, Indian, Chinese, Sri Lankan, Japanese, Korean, and other Asians. The 'Other' category included Australians, British/Irish, German, Dutch, Greek, Polish, South Slav, Italian and other Europeans, Middle Eastern, Latin American, African, and Not Stated.

Achievement against the curriculum

Table 2.3 shows percentages of Year 4 and Year 8 students achieving against curriculum levels according to the NoTA scale. At Year 4, 72 percent of students scored above the minimum score on the NoTA scale associated with achieving curriculum level 2 objectives. At Year 8, 63 percent of students scored above the minimum score associated with achieving curriculum level 4 objectives.

Table 2.3 Percentage of Year 4 and Year 8 students achieving across curriculum levels according to the NoTA scale, by curriculum level

| Curriculum level | Year 4 N = 2224 | | Year 8 N = 2192 | |
|-------------------|--------------------|-------------------------|--------------------|-------------------------|
| | % | Confidence interval (%) | % | Confidence interval (%) |
| Level 4 and above | 6 | (4.5, 7.0) | 63 | (60.5, 65.5) |
| Level 3 | 26 | (24.0, 28.5) | 28 | (25.5, 30.0) |
| Level 2 | 40 | (37.5, 42.5) | 8 | (6.5, 9.0) |
| Level 1 | 28 | (25.5, 30.0) | 1 | (0.5, 1.5) |

3 Performance Ratings in Dance

This chapter describes Year 4 and Year 8 achievement in dance based on results generated using the performance ratings framework for dance. As described in Chapter 2, this assessment was based on best-fit judgements made by the teachers of a sub-sample of the students who were involved in the NMSSA study. The teachers used a framework of step-level descriptors to create a rating profile for each student across four different aspects of dance: 'show and perform dance to an audience'; 'explore and create dance'; 'explore, create and show dance with music'; and 'talk about own or others' dance work'.

The chapter begins by describing the sub-sample that was assessed using the performance ratings framework for dance. It then examines how students were rated on each of the aspects that made up the framework and describes achievement on the framework as a whole. Achievement is examined by year level and gender. The relatively small number of students that were assessed using the performance ratings framework did not allow robust reporting across ethnicity, school type and decile band.

1. Completion of the Performance Ratings in Dance assessment

In total, 50 schools (25 at each year level) out of the 200 schools in the NMSSA study were asked to complete the Performance Ratings in Dance assessment. Of these, 23 schools at Year 4 and 16 schools at Year 8 returned completed ratings. The schools that did not complete the assessment provided a variety of reasons for not being able to do so. For example, in several schools, dance was taught in modules at set times during the year and the modules had not occurred yet for the students in the study.

Table 3.1 shows the number of students in the national sample for whom performance ratings in dance were completed at each year level by gender and school decile band. Each school was asked to complete performance ratings for the first 10 students from the randomised list of students selected from their school to take part in the NMSSA study.

Table 3.1 Composition of the student samples for whom performance ratings in dance were completed

| | Number of students | |
|---------------------------|--------------------|-------------------|
| | Year 4 N = 237 | Year 8 N = 166 |
| Gender | | |
| Girls | 104 | 81 |
| Boys | 133 | 85 |
| School decile band | | |
| Low | 63 | 31 |
| Mid | 74 | 103 |
| High | 100 | 32 |

To provide an indication of teachers' confidence in making the judgements the teacher who completed each profile was asked to indicate how much they agreed with the statement: 'I found it easy to make judgements about this student's dance profile'. Figure 3.1 shows how the teachers responded at each year level. Overall the majority of teachers agreed or strongly agreed with the statement.

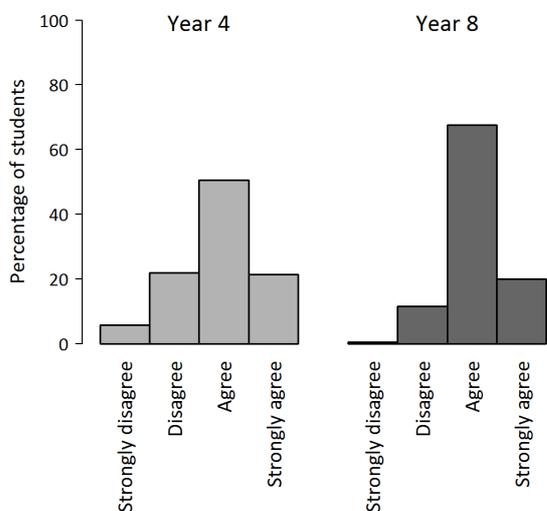


Figure 3.1 Percentage frequency of teachers' responses about how easy it was to make a dance performance rating, by year level

Teachers were also asked to respond to the statement 'this student engages enthusiastically in dance learning experiences at school'. Figure 3.2 shows how the teachers responded at each year level. Overall the majority of teachers agreed or strongly agreed with the statement.

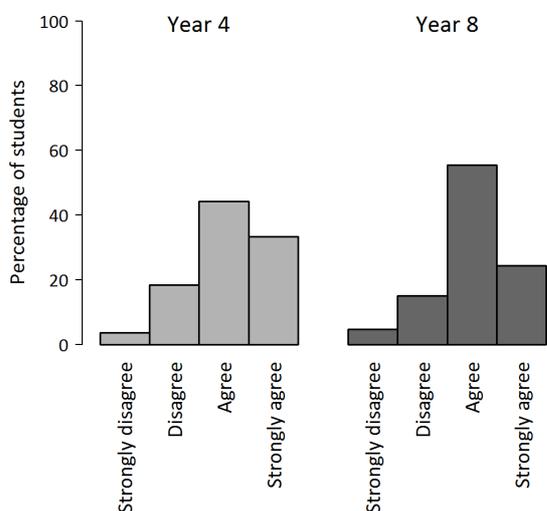


Figure 3.2 Percentage frequency of teachers' responses about student engagement in dance, by year level

2. Achievement by aspect

Making an assessment using the performance rating framework for dance involved making judgments across four aspects: 'show and perform dance to an audience'; 'explore and create dance'; 'explore, create and show dance with music'; and 'talk about own or others' dance work'. For each aspect, teachers selected the step-level that provided the best-fit descriptor of their student's achievement level. They also had the option of indicating an advanced stage of that step. For instance, teachers could indicate the best-fit step was a '1' or, if they thought the student was further advanced but not yet described by the second step, a '1A'.

To simplify the analysis all advanced steps were collapsed back into their original step-level. For instance, all '1A' step-levels were recoded back to a '1'.

Show and perform dance to an audience

Figure 3.3 shows the step-level descriptors, as they were presented to teachers, for each step of the aspect, 'show and perform dance to an audience'.

| Step 1 | Step 2 | Step 3 | Step 4 |
|---|--|---|---|
| Students at this step: | | | |
| Can show learned movement sequences or dances to a 'public' audience, with teacher support (e.g. teacher may be placing students and calling out instructions). | Can show learned movement sequences or dances to a 'public' audience with controlled entrances, placement and movement about the space and exits (e.g. teacher may be prompting with occasional instructions). | Can show memory of movements, good concentration and commitment to perform to a 'public' audience with awareness of performance demands (e.g. hold still while others are dancing). | Can show sustained memory of movements, confidence, commitment and appropriate expression throughout the performance (e.g. show strong, controlled energy and purpose throughout the haka). |

Figure 3.3 Descriptors for the aspect, 'show and perform dance to an audience', from the performance ratings framework for dance

Figures 3.4 and 3.5 show how students were rated on the aspect: 'show and perform dance to an audience' by year level and gender. The average step-level for all students at each year level is also provided in each figure. The average step-level awarded to students at Year 4 for 'show and perform dance to an audience' was 2.5 and at Year 8 it was 3.0. Greater proportions of Year 8, than Year 4, students received ratings associated with the higher step-level descriptors. Compared to girls, lesser proportions of boys were rated as achieving in the highest step-levels.

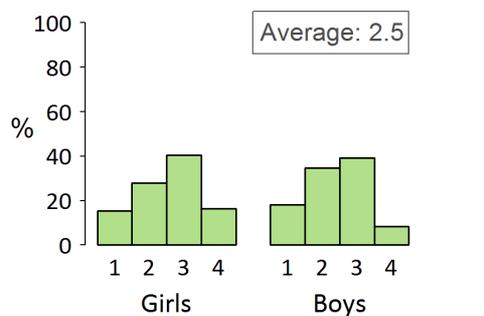


Figure 3.4 Percentage of Year 4 students rated at each step-level on the aspect: 'show and perform dance to an audience', by gender

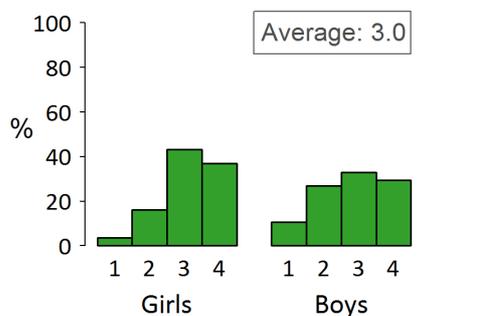


Figure 3.5 Percentage of Year 8 students rated at each step-level on the aspect: 'show and perform dance to an audience', by gender

Explore and create dance

Figure 3.6 shows the step-level descriptors for the aspect: ‘explore and create dance’.

| Step 1 | Step 2 | Step 3 | Step 4 |
|--|--|--|--|
| Students at this step: | | | |
| Can work under teacher direction and/or support in whole class situations to explore variations of simple body shapes, locomotor and non-locomotor movements using the dance elements of body, space, time, energy and/or relationships in response to a given movement idea or stimulus (e.g. different ways of stretching, bending and twisting to illustrate the life of plants). | Can work under teacher direction and/or support with some independence and control, on their own or in groups, to explore and create own short sequences of movements and/or shapes that show varied use of 1 or more of the dance elements of body, space, time, energy and/or relationships in response to given ideas or stimuli. | Can work under teacher guidance, with some independence and increasing control and confidence to explore and create own sequences of movements and shapes that show contrasting use of 2 or more of the dance elements of body, space, time, energy, and/or relationships in response to given ideas or stimuli, with clear starting and finishing shapes. | Can work under teacher guidance with independence, control and confidence to explore and create dance sequences of movements and shapes from own or others’ ideas, that show contrasts/ changes in use of the dance elements of body, space, time, energy and/or relationships, and with relevant awareness of overall dance structure (e.g. create a solo dance that shows changes of movement expression and mood in response to a haiku poem, framed by interesting starting and finishing shapes). |

Figure 3.6 Descriptors for the aspect, ‘explore and create dance’, from the performance ratings framework for dance

Figures 3.7 and 3.8 show how students were rated on the aspect ‘explore and create dance’ by year level and gender.

Greater proportions of Year 8 students, compared to Year 4 students, were judged to be achieving at the higher step-levels on the ‘explore and create dance’ aspect. At both year levels, smaller proportions of boys than girls were judged to be as achieving at the highest step-level.

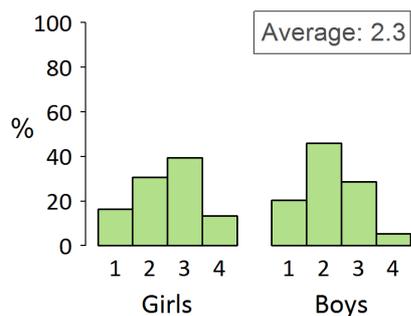


Figure 3.7 Percentage of Year 4 students rated at each step-level on the aspect, ‘explore and create dance’, by gender

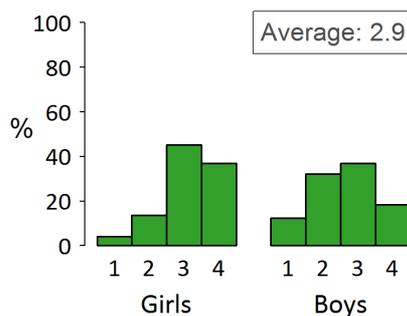


Figure 3.8 Percentage of Year 8 students rated at each step-level on the aspect, ‘explore and create dance’, by gender

Explore, create and show dance with music

Figure 3.9 shows the step-level descriptors for the aspect: ‘explore, create and show dance with music’.

| Step 1 | Step 2 | Step 3 | Step 4 |
|--|---|--|---|
| Students at this step: | | | |
| Can work under teacher direction and/or support in whole class situations to recognise and respond with movements that match the beat, tempo, volume and pitch in music or sound (e.g. show high and low walking with volume or pitch changes, action songs, simple line and circle dances). | Can work under teacher direction and/or support with some independence and control, on their own or in groups, to improvise, create and/or show movements to match given counts, rhythms, changes in tempo or musical/sound qualities (e.g. folk dances, sāsā, waiata-ā-ringā). | Can work under teacher guidance, with some independence and increasing control and confidence to create or show sequences of movement and/or shapes that show changes in rhythms and use of space and/or partnering relationships (e.g. folk dances, hip-hop, disco hustle). | Can work under teacher guidance with independence, control and confidence to create or show dance with control and clarity of movements, shapes and patterns, in group or partner dances that contain changes in rhythms and expressive qualities (e.g. Bollywood, hip-hop, ballroom dances, own dances). |

Figure 3.9 Descriptors for the aspect, ‘explore, create and show dance with music’, from the performance ratings framework for dance

Figures 3.10 and 3.11 show how students were rated on the aspect ‘explore, create and show dance with music’ by year level and gender.

Greater proportions of Year 8 students, compared to Year 4 students, were judged to be achieving at the higher step-levels on this aspect. About the same proportion of Year 4 girls as Year 8 boys were rated at the highest step-level.

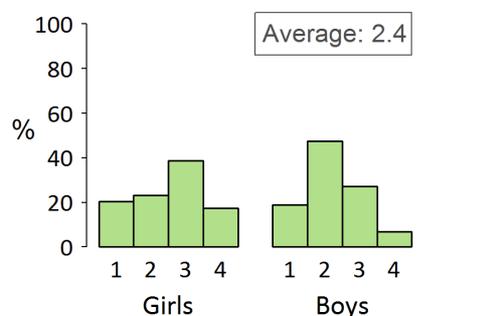


Figure 3.10 Percentage of Year 4 students rated at each step-level on the aspect, ‘explore, create and show dance with music’, by gender

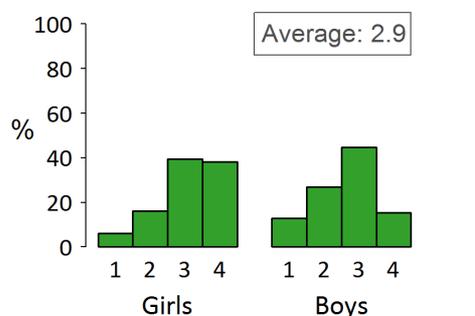


Figure 3.11 Percentage of Year 8 students rated at each step-level on the aspect, ‘explore, create and show dance with music’, by gender

Talk about own or others' dance work

Figure 3.12 show the step-level descriptors for the aspect: 'talk about own or others' dance work'.

| Step 1 | Step 2 | Step 3 | Step 4 |
|--|--|---|---|
| Students at this step: | | | |
| Can give a brief comment about the body parts, shapes and/or movements used in own or others' dance work, and give a personal response or reason for choice(s) (e.g. I liked the wavy arm movements. I/We/They did them to be like a snake). | Can give a response with some specific detail e.g. describe how the body, space, time, and/or energy were used in own or others' dance work, and identify what was easy/hard to do (e.g. I/We/They used arms and legs to make sudden, quick, jagged lines like lightning. It was hard to not fall over). | Can give a detailed response e.g. describe how movements and use of the dance elements have been used in contrasting ways in own or others' work to relate to a given idea or stimulus and/or the preferred aspects of own/others' work (e.g. I/We/ They used arms and legs to make sudden, quick, jagged lines like lightning, and then smooth, rolling, turning movements to show thunder. I liked how I/we/they moved around without bumping into other people). | Can give a comprehensive and/or thoughtful response e.g. describe in detail how movements and use of the dance elements have been used in contrasting ways in own or others' work to relate to a given idea or stimulus and/or explain the strengths and weaknesses of own or others' dance work (e.g. variety of movements, use of dancers) and/or how they might improve their expression of a given or own idea/ stimulus and/or the characteristics of a dance genre. |

Figure 3.12 Descriptors for the aspect, 'talk about own or others' dance work', from the performance ratings framework for dance

Figures 3.13 and 3.14 show how students were rated on the aspect 'talk about own or others' dance work' by year level and gender.

This aspect had the lowest average step-level ratings at both year levels. As with the other three aspects, greater proportions of Year 8, than Year 4, students were judged to be achieving at the higher step-levels on this aspect. Compared with the other three aspects, very few Year 4 students were rated at the highest step-level.

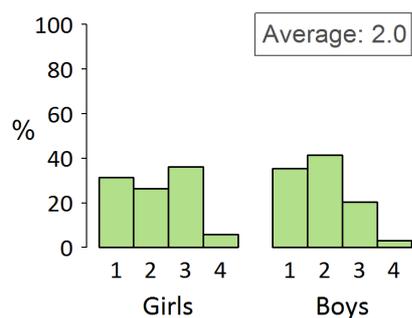


Figure 3.13 Percentage of Year 4 students rated at each step-level on the aspect, 'talk about own or others' dance work', by gender

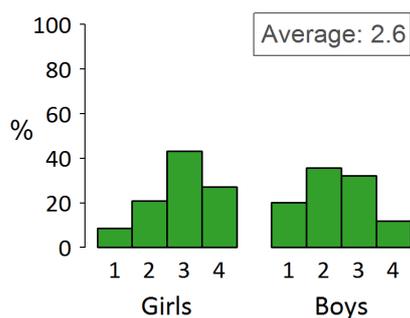


Figure 3.14 Percentage of Year 8 students rated at each step-level on the aspect, 'talk about own or others' dance work', by gender

3. Performance in Dance scale

IRT was used to create an overall performance ratings measure for dance based on the step-levels students had been awarded for each of the aspects. The final scale produced on the basis of the performance ratings framework for dance was called the Performance in Dance (PDa) scale.

Curriculum alignment

A curriculum alignment exercise was used to link the PDa scale to curriculum expectations. In the exercise a panel of dance-education experts generated minimally sufficient profile ratings across the aspects for students to be considered to be achieving at curriculum levels 2, 3 and 4 (see Appendix 5 of *Technical Information 2015*¹⁶). The results of the exercise allowed lines to be drawn across the scale to indicate the achievement levels associated with achieving curriculum level 2, 3 and 4 objectives.

4. Achievement on the Performance in Dance scale

Figure 3.15 shows the distributions of scores on the PDa scale for Year 4 and Year 8 students. Table 3.2 provides summary statistics for each year level. On average, Year 8 students were located 15 units higher on the PDa scale than Year 4 students (an annualised difference of just under 4 scale score units per year). The annualised difference represents an effect size of 0.18. This effect size is lower than that found for the NoTA assessment, which was 0.46.

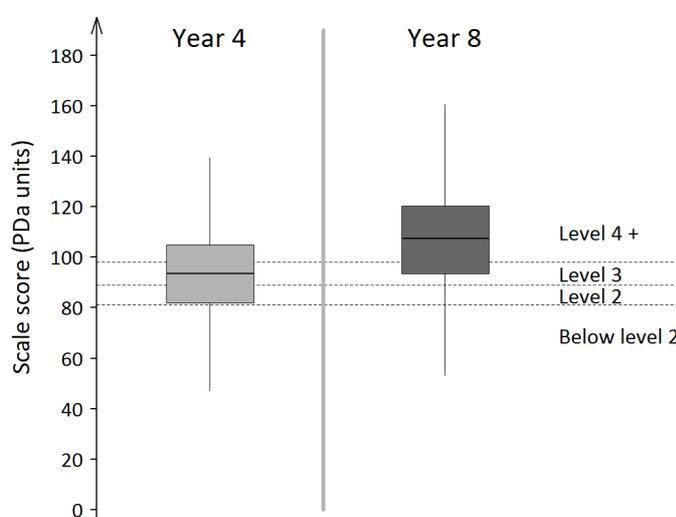


Figure 3.15 Distribution of scores for Year 4 and Year 8 students on the PDa scale

Table 3.2 Summary statistics for Year 4 and Year 8 student achievement on the PDa scale

| | Year 4 <i>N</i> = 237 | Year 8 <i>N</i> = 166 | Difference between Year 8 and Year 4 |
|-------------------------------------|--------------------------|--------------------------|---|
| Average scale score | 93 | 107 | 15 |
| Confidence interval for the average | (90.0, 95.5) | (103.5, 111.0) | (10.0, 19.5) |
| Standard deviation | 19 | 21 | |
| Average annual effect size | | | .18 |

Table 3.3 shows how Year 4 and Year 8 students achieved against curriculum levels. At Year 4, 77 percent of students scored above the minimum score on the PDa scale associated with achieving curriculum level 2 objectives. At Year 8, 68 percent of students scored above the minimum score associated with achieving curriculum level 4 objectives. The curriculum expectation at Year 4 is that students will have achieved, on balance, level 2 objectives by the end of the school year. In Year 8 they will have achieved, on balance, level 4 objectives by the end of the school year. NMSSA assessment was carried out in Term 3. Therefore, we could expect a larger proportion of students at each year level to have met or exceeded the minimum score on the PDa scale for the appropriate curriculum level by the end of the year.

¹⁶ NMSSA Report 11: Technical Information 2015.

Table 3.3 Percentage of Year 4 and Year 8 students achieving across curriculum levels according to the PDa scale

| Curriculum level | Year 4 | | Year 8 | |
|-------------------|--------|-------------------------|--------|-------------------------|
| | % | Confidence interval (%) | % | Confidence interval (%) |
| Level 4 and above | 40 | (32.0, 47.0) | 68 | (59.5, 76.5) |
| Level 3 | 21 | (15.0, 27.5) | 11 | (5.5, 17.0) |
| Level 2 | 16 | (10.5, 21.5) | 10 | (4.5, 16.0) |
| Level 1 | 23 | (17.0, 29.5) | 10 | (4.5, 16.0) |

The proportions of students achieving at expected curriculum levels on the PDa scale were similar to those achieving at expected curriculum levels on the NoTA assessment (see Chapter 2).

Achievement by gender

Figures 3.16 and 3.17 display student score distributions, by gender, on the PDa scale at each Year 4 and Year 8 respectively. Girls scored higher, on average, than boys by 6 scale score units at Year 4 and 13 scale score units at Year 8. These differences were statistically significant.

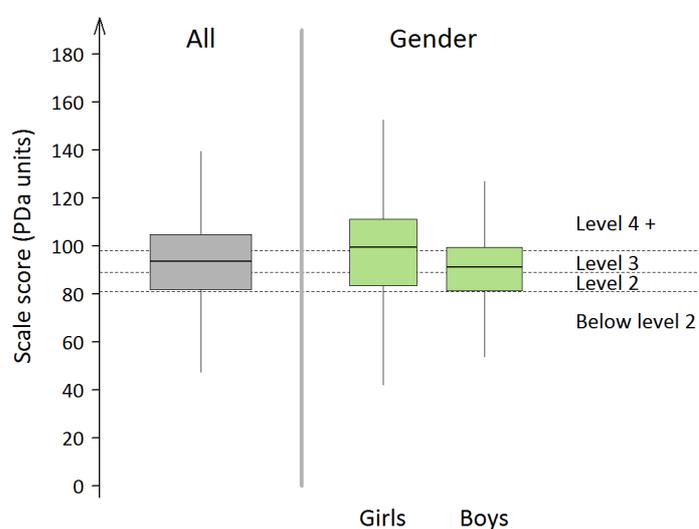


Figure 3.16 Distribution of scores for Year 4 students on the PDa scale, by gender

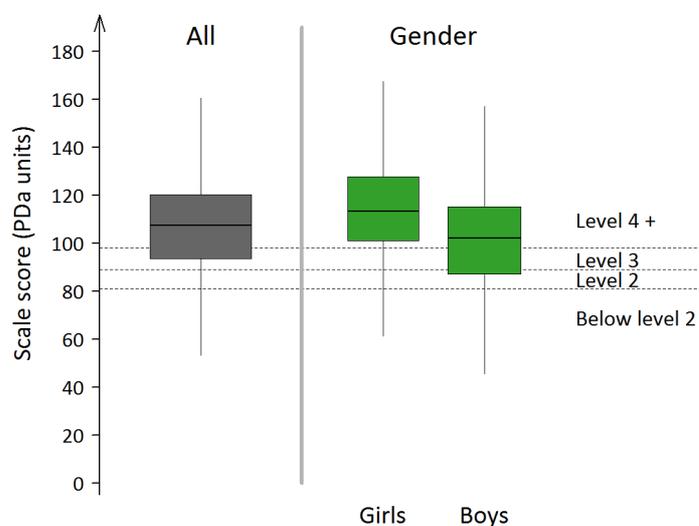


Figure 3.17 Distribution of scores for Year 8 students on the PDa scale, by gender

4 Contextual Factors in Dance: Attitudes, Learning Opportunities, Teaching and Resourcing

This chapter uses data collected using student, teacher and principal questionnaires to describe a range of contextual factors associated with learning in dance. The chapter is organised thematically, combining insights from the student, teacher and principal data as appropriate. The themes are: students' attitudes to dance; learning opportunities in dance; the teaching of dance; and the resourcing of dance. After a brief description of who completed the questionnaires, the chapter focuses on each theme in turn.

1. Completion of the questionnaires

The student questionnaire

All students completed a computer-based questionnaire. To reduce the response burden, half of the students completed a questionnaire related to music and drama and the other half responded to a questionnaire related to visual arts and dance. The two questionnaires were carefully allocated to schools to ensure a representative subsample of students completed each version. About 1,100 students at each of Year 4 and Year 8 responded to the questionnaire that included sections related to learning in dance. These sections focused on students' attitudes to dance and their opportunities to learn dance within and outside of school.

The teacher questionnaire

Up to three teachers in each school completed a teacher questionnaire. As for the student questionnaire, teachers in half of the schools responded to questions about visual arts and dance; the other half responded to questions about drama and music. In total, 117 Year 4 teachers and 73 Year 8 teachers responded to the questions about dance. Table 4.1 shows the percentage of teachers responding to the dance questionnaire at each year level, by school decile band.

Both classroom teachers and specialist teachers of dance were asked to respond to the questionnaire. Of the Year 4 teachers, 5 percent reported that they were dance specialists. At Year 8, 9 percent of respondents reported being specialist teachers of dance.

Table 4.1 Percentage of responses to the teacher questionnaire for dance, by year level and school decile

| School decile | Dance | |
|---------------|------------------------|-----------------------|
| | Year 4 % N = 117 | Year 8 % N = 73 |
| Low | 28 | 15 |
| Mid | 33 | 43 |
| High | 39 | 43 |

Teachers were asked about their qualifications, experiences and confidence in teaching dance, their pedagogical approaches to teaching dance and the resources available to them for teaching dance. Teachers also identified the frequency of opportunities their students had to learn dance at school and the professional support and development they experienced in relation to teaching dance.

The principal questionnaire

In total, 178 principals completed the principal questionnaire; 93 from Year 4 and 85 from Year 8. Table 4.2 shows the percentage of principals who responded by school decile band for each year level.

Table 4.2 Number of principals who responded to the questionnaire, by school decile

| School decile | Number of principals | |
|---------------|----------------------|------------------|
| | Year 4 N = 93 | Year 8 N = 85 |
| Low | 24 | 15 |
| Mid | 33 | 35 |
| High | 36 | 35 |

Principals were asked to identify the extent to which the school focused on or prioritised dance in the school curriculum, the extent to which teachers could access specialist support and professional learning and development in dance, and opportunities students had to learn dance through school-wide activities or groups. Principals were also asked to indicate how well teachers taught, assessed and reported on dance.

2. Students' attitudes to dance

Students were asked how much they agreed with each of a series of statements about their attitudes to dance. Figures 4.1 and 4.2 show the statements and how students responded, by gender, at Year 4 and Year 8 respectively.

In general, students were relatively positive about dance, with students in Year 4 more positive overall than those in Year 8. For each statement, at both year levels, girls were more likely than boys to respond using 'agree a lot' or 'totally agree', while boys were more likely to disagree. The statement with which the greatest proportion of students disagreed was 'Dance is my favourite subject at school'.

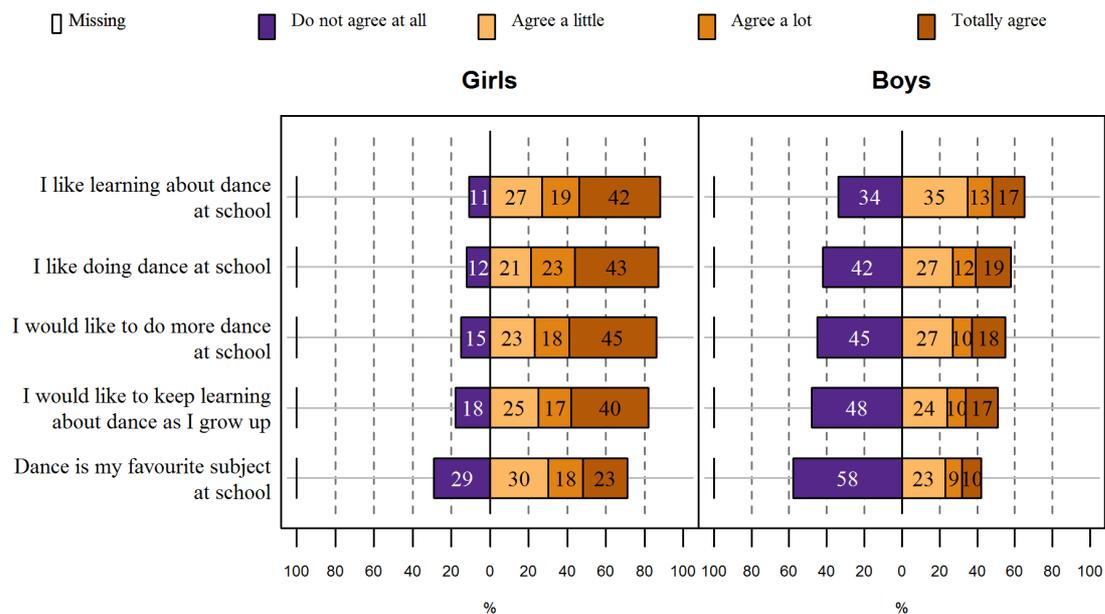


Figure 4.1 Percentage frequency of responses by Year 4 students to statements about their attitudes to dance, by gender

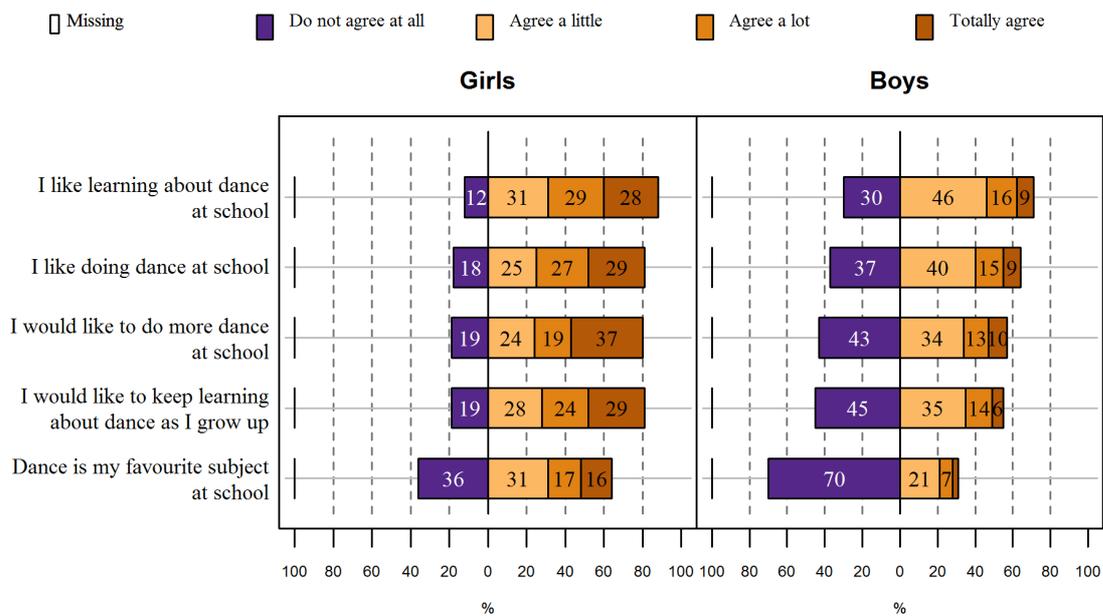


Figure 4.2 Percentage frequency of responses by Year 8 students to statements about their attitudes to dance, by gender

Attitude to Dance scale

An IRT scale was constructed based on the students' responses to statements about their attitudes to dance. The scale was called the Attitude to Dance scale. The scale was divided into three broad regions to indicate the locations on the scale where students were typically less positive, positive and very positive in their responses.

Figure 4.3 shows the distributions of the Attitude to Dance scale scores for students in Year 4 and Year 8. On average, Year 8 students were less positive about dance than Year 4 students by 3 scale score units. This difference was statistically significant.

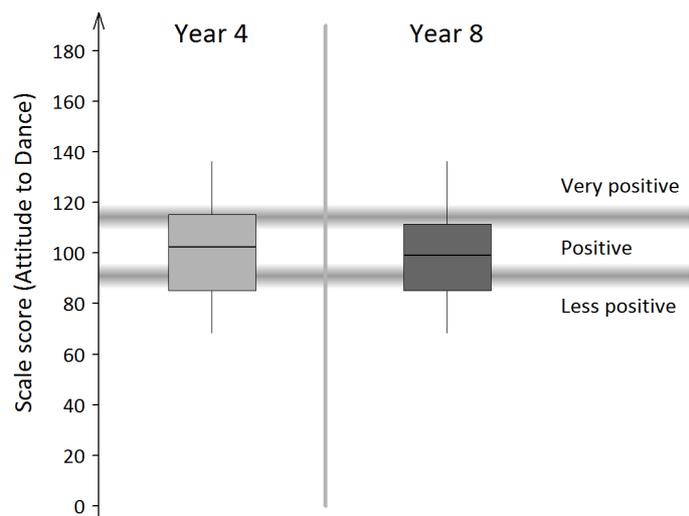


Figure 4.3 Distribution of Attitude to Dance scale scores for Year 4 and Year 8 students

Attitude to dance by gender and ethnicity

Figures 4.4 and 4.5 show the distributions of scores on the Attitude to Dance scale by gender and ethnicity for Year 4 and Year 8 students, respectively.

Girls at both year levels were more positive, on average, than boys. The difference was about 15 scale score units at each year level, and was statistically significant.

Pasifika students, on average, scored higher than non-Pasifika students at both year levels (by 7 and 6 scale score units respectively). At both year levels, the difference was statistically significant.

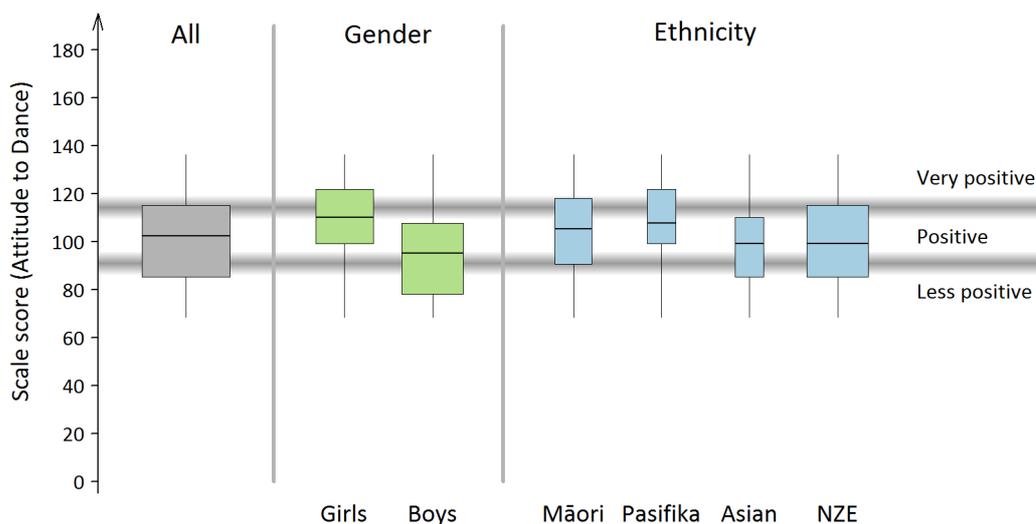


Figure 4.4 Distribution of Attitude to Dance scale scores for Year 4 students, by gender and ethnicity (NZE = NZ European)

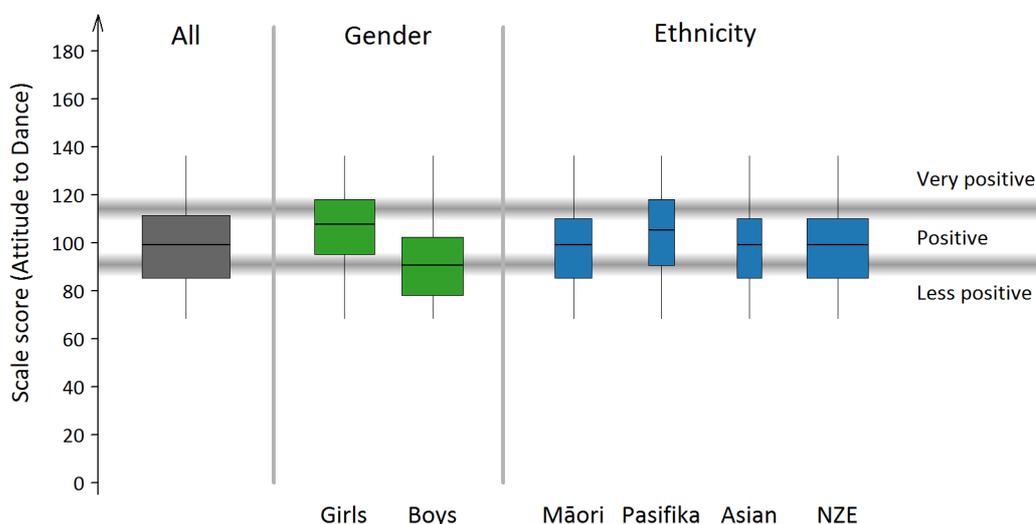


Figure 4.5 Distribution of Attitude to Dance scale scores for Year 8 students, by gender and ethnicity (NZE = NZ European)

Attitude to dance by decile band

At each year level, students in low decile schools had, on average, a more positive attitude to dance than students in mid or high decile schools. The difference in average scores on the Attitude to Dance scale for students in high decile schools compared to low decile schools was 5 scale score units at Year 4, and 3 scale score units at Year 8. The differences were statistically significant at Year 4 only.

Attitude to dance for students with special education needs

At both Year 4 and Year 8 the difference between the average Attitude to Dance scale score for students with special education needs and students without special education needs was not statistically significant.

Relationship between attitudes and performance ratings in dance

Figures 4.6 and 4.7 show the relationship between achievement on the Performance in Dance (PDa) scale and the Attitude to Dance scale scores by using the ‘very positive’, ‘positive’ and ‘less positive’ regions of the Attitude to Dance scale to form three attitude groupings. At both year levels, achievement on the PDa scale was lower, on average, among students who were less positive about dance, than students who were very positive. These differences were statistically significant. The correlation between PDa scale scores and Attitude to Dance scale scores was statistically significant ($p < .01$) at both year levels. The correlation coefficient was 0.21 at Year 4 and 0.36 at Year 8.

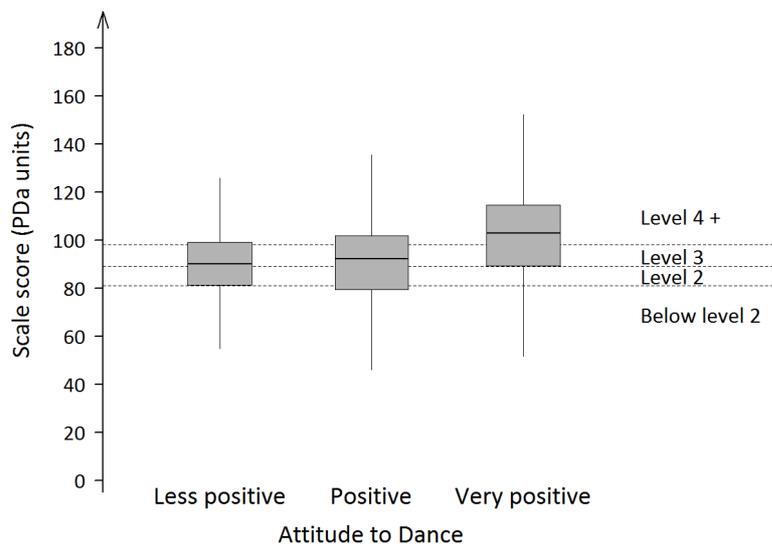


Figure 4.6 Distribution of PDa scale scores for Year 4 students, by level on the Attitude to Dance scale

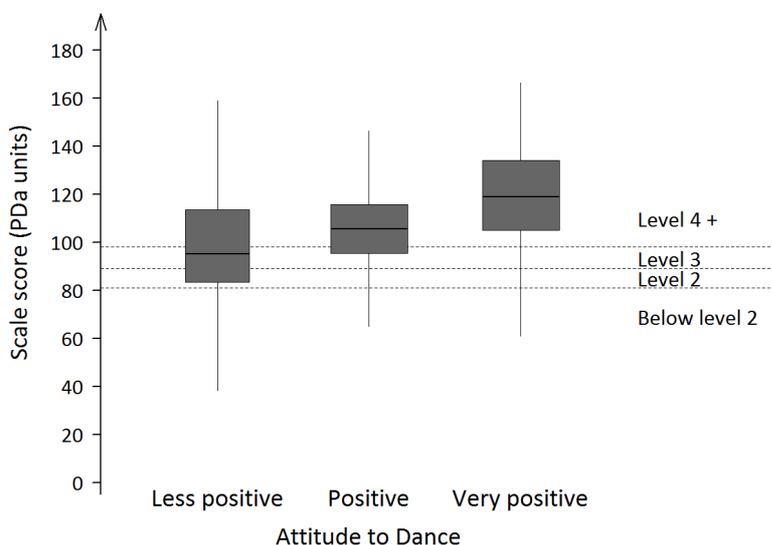


Figure 4.7 Distribution of PDa scale scores for Year 8 students, by level on the Attitude to Dance scale

3. Learning opportunities in dance

We asked students, teachers and principals about the opportunities students had to learn dance in and out of school. This section reports their responses.

Students' views about opportunities to learn dance

Learning opportunities in school

Students were asked to rate how often they were involved in each of a list of opportunities and experiences to learn dance at school. Figures 4.8 and 4.9 show the opportunities that were rated and how students responded, by gender, at Year 4 and Year 8 respectively.

Overall, Year 4 and Year 8 students reported similar involvement in opportunities to learn dance at school. At both year levels boys, on average, indicated less frequent involvement in each dance opportunity. The difference was particularly marked for the statement 'make up your own dance by yourself or with another person', where the difference in the proportions of boys and girls who reported never being involved in this activity was greater than 20 percent at both year levels.

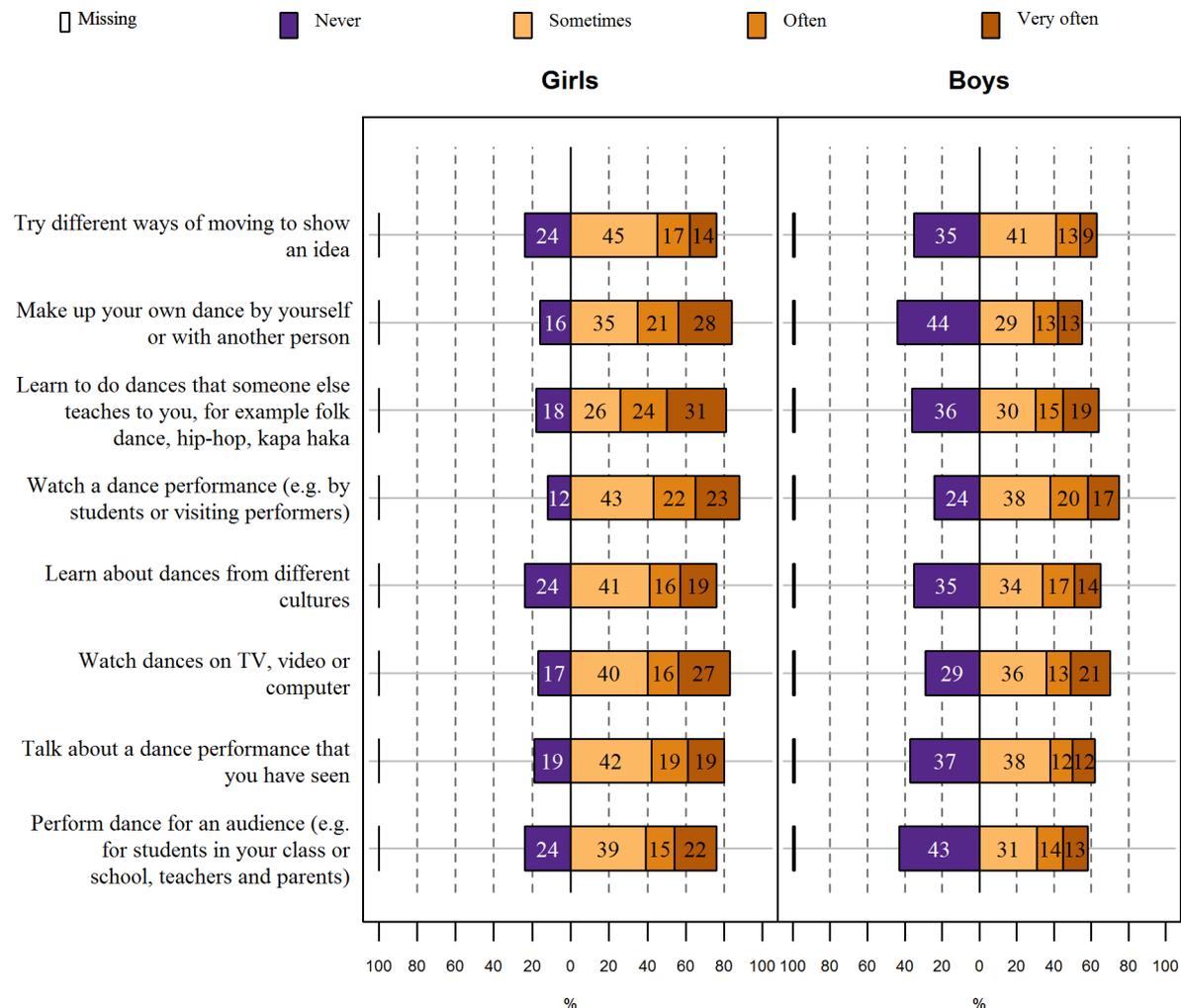


Figure 4.8 Percentage frequency of responses by Year 4 students about learning opportunities in dance, by gender

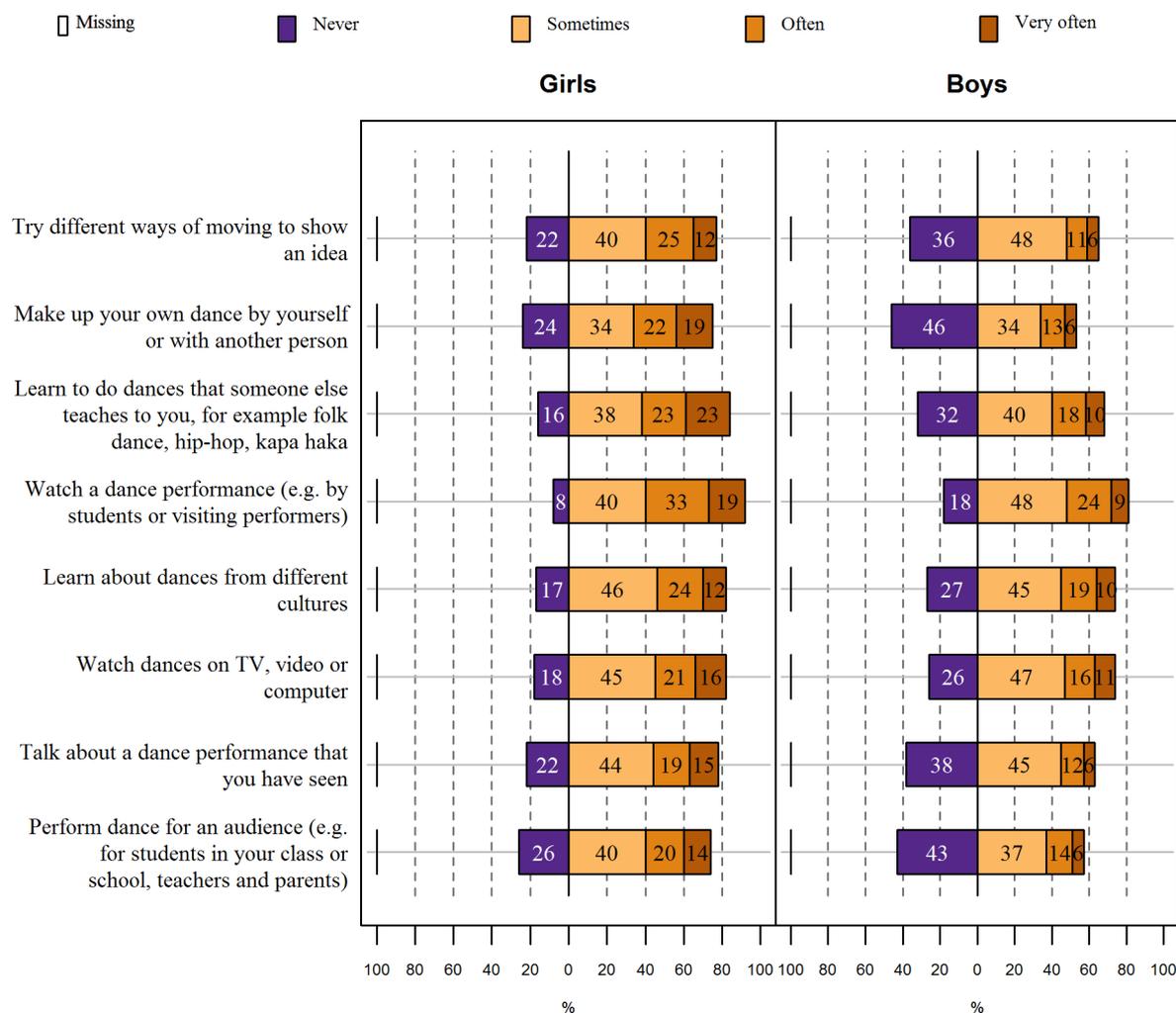


Figure 4.9 Percentage frequency of responses by Year 8 students about learning opportunities in dance, by gender

The patterns of responses for Māori students to the statements about learning opportunities were very similar to the responses for all students at both year levels.

Overall, Pasifika students at both year levels reported more involvement in all of the opportunities compared to all students in the sample. For example, 81 percent of Pasifika students in Year 4, and 92 percent of Pasifika students in Year 8, indicated they learn about dances from other cultures at least sometimes. This compares with 70 percent of all Year 4 students, and 78 percent of all Year 8 students. Eighty-nine percent of Pasifika students in Year 4, and 88 percent of Pasifika students in Year 8, indicated they learn to do dances that someone else teaches them, compared with 72 and 76 percent of all students in the samples at each year level, respectively.

Learning opportunities outside of school

Students were also asked two questions about their opportunities to learn and perform dance outside of school. The first asked whether they went to dance lessons, classes or clubs and the second asked whether they performed dance by themselves or with others.

Figure 4.10 shows the percentage of students who indicated they went to dance classes or clubs outside of school at Year 4 and 8, by gender. Overall, about 20 percent of Year 4 students, and 15 percent of Year 8 students, reporting learning dance outside of school. The proportions of girls learning dance outside of school were much greater than those of boys (31 compared with 9 percent and Year 4, and 25 compared with 4 percent at Year 8).

Overall, Māori and Pasifika students within the sample reported similar levels of involvement in learning dance outside of school when compared with all students. Māori and Pasifika girls were slightly less likely to report learning dance outside of school when compared with all girls in the sample, and Māori and Pasifika boys were slightly more likely to report learning dance outside of school when compared with all boys in the sample.

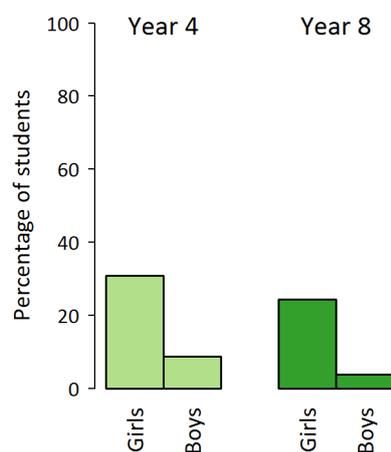


Figure 4.10 Percentage of students who go to dance classes or clubs outside of school time, by year level and gender

Figures 4.11 and 4.12 show the relationship between achievement on the PDa scale and learning dance outside of school at Year 4 and Year 8, respectively. On average, and at both year levels, students who said that they learned dance outside of school achieved higher on the PDa scale than those who indicated they did not (by 9 and 18 scale score units at Year 4 and Year 8, respectively). The difference in average scores was statistically significant at both year levels.

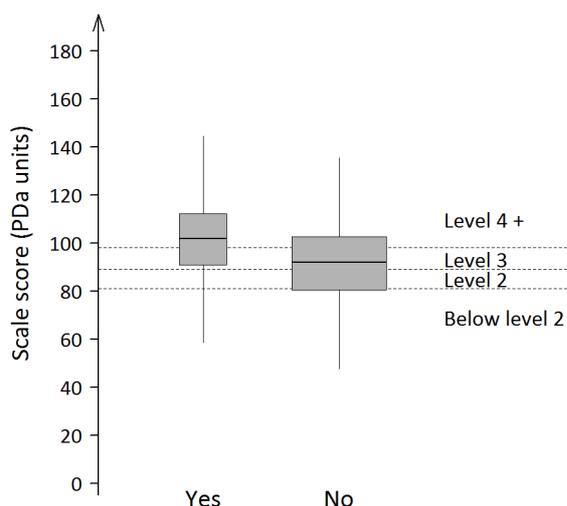


Figure 4.11 Distribution of PDa scale scores for Year 4 students who learn to dance outside of school time

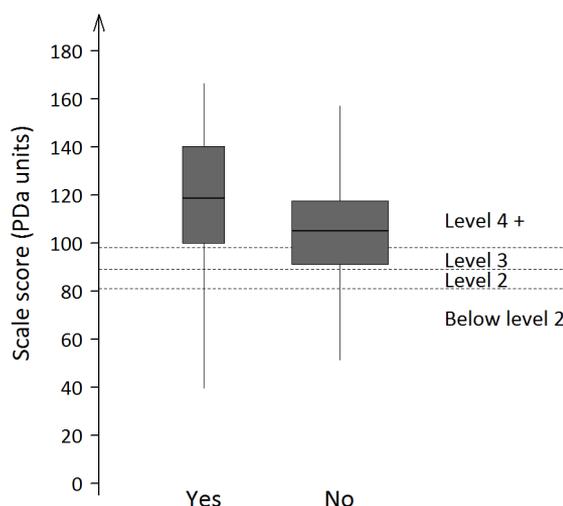


Figure 4.12 Distribution of PDa scale scores for Year 8 students who learn to dance outside of school time

Figures 4.13 and 4.14 show how students responded to the question: ‘Do you perform dance by yourself or with others outside of school time?’ by gender for Year 4 and Year 8, respectively. At both year levels, about two thirds of girls reported performing dance outside of school, while about two thirds of boys reported that they never performed dance outside of school. At Year 8, a greater proportion of Pasifika students reported some involvement in performing dance outside of school, when compared with all students. This was particularly true for Pasifika boys. About 55 percent of Pasifika boys at Year 8 indicated that they performed dance outside of school, compared with 30 percent of all Year 8 boys in the sample.

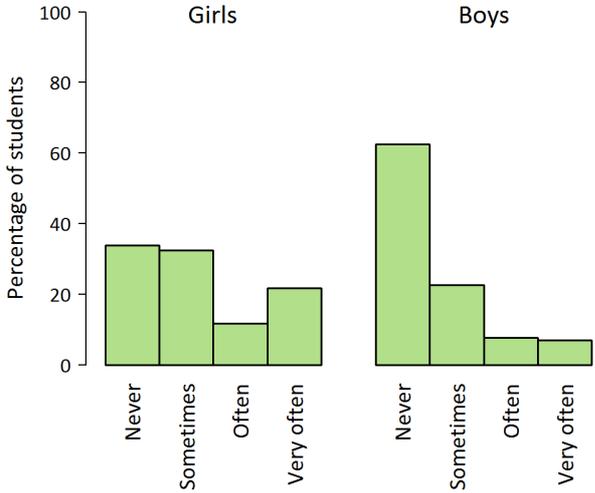


Figure 4.13 Percentage frequency of Year 4 students performing dance by themselves or with others outside of school time, by gender

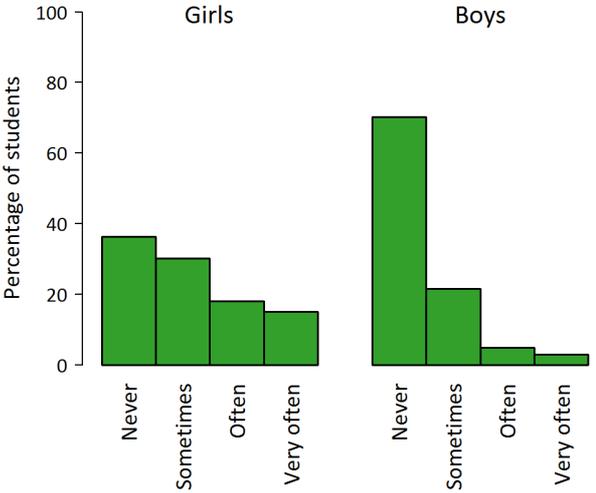


Figure 4.14 Percentage frequency of Year 8 students performing dance by themselves or with others outside of school time, by gender

Teachers’ views of opportunities to learn dance

Teachers were asked to indicate how often students in their class had the opportunity to take part in each of a range of opportunities to learn dance as part of their school’s dance programme. Figure 4.15 shows the statements and how teachers responded at Year 4 and Year 8 respectively. The opportunities were the same as those for students with some slight rewordings. However, the response scale teachers used to respond was different from the scale used by students and comparisons should be made with caution (see Figure 4.8 for the student response scale).

Year 4 and Year 8 teachers showed similar patterns of responses to these statements. The opportunities that were reported by the greatest proportions of Year 4 teachers as occurring once a year or more were ‘learning to do dances taught to them’ and ‘watch a dance performance’. At Year 8 the opportunities most often reported as occurring once a year or more were ‘watch a dance performance’, ‘perform dance for an audience’, and ‘learning to do dances taught to them’. At both year levels, the opportunity reported as occurring by the smallest proportion of teachers was ‘learning dance annotation’.

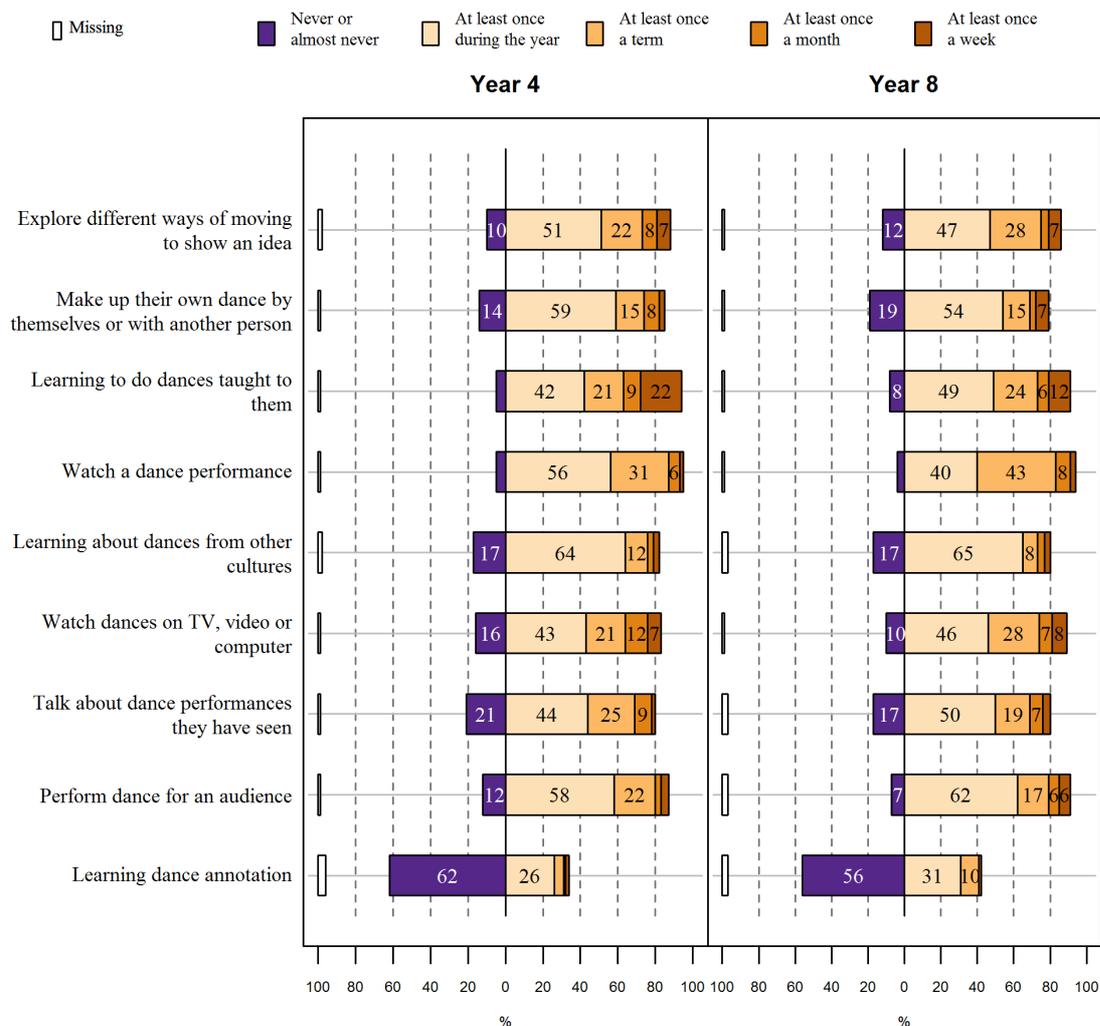


Figure 4.15 Percentage frequency of teachers' responses to statements about learning opportunities for students in dance, by year level

Overall, there was some contrast between how teachers' and students' responded to the list of opportunities to learn dance at school. While most teachers recognised opportunities for students to learn and be involved in dance, students often indicated that they did not take part in these opportunities. The most notable difference between teacher and student responses was related to performing dance to an audience. While 88 percent of teachers at Year 4 and 93 percent at Year 8 indicated the opportunity existed at least once a year, 30 percent of students at both year levels reported they never performed dance to an audience. Another notable difference between teacher and student responses was related to learning to do dances, where almost 30 percent of students at Year 4 reported they never learned to do dances taught to them. On the other hand, over 90 percent of teachers reported that the opportunity to do this occurred at least once a year.

Principals' views on learning opportunities in dance

Principals were asked to rate the priority given to dance compared to other learning areas. They responded by choosing from: 'Relatively low priority', 'Some priority' and 'High priority'. Sixty-six percent of principals at Year 4 and 72 percent at Year 8 responded that dance was given at least some priority. A greater proportion of principals at Year 8 than at Year 4 indicated dance had a high priority (26 percent at Year 8 compared to 9 percent at Year 4.)

Principals were also asked to list the regular school-wide arts activities that students could participate in at school. The responses were coded into eight categories: kapa haka, multidisciplinary performance events, dance, drama, music (singing, instrumental groups), visual arts and cultural activities (these included cultural activities other than kapa haka). Table 4.3 presents the percentage of principals identifying each category of arts activities at Year 4 and Year 8, and examples of the activities and groups that principals listed.

Table 4.3 Percentage of principals reporting regular school-wide arts activities that students can participate in at school

| Arts activity | Percentage of principals | | Examples |
|--------------------|--------------------------|-----------------------|--|
| | Year 4 % N = 93 | Year 8 % N = 85 | |
| Kapa haka | 91 | 93 | Including pōwhiri, whaikōrero |
| Performance event | 82 | 92 | School production, school concert, talent quests, band quest |
| Singing | 83 | 86 | Choir, carol singing, vocal groups, glee club |
| Instrumental group | 71 | 76 | Rock/bands, chamber group, orchestra, classes/bands in ukulele, guitar, recorder, keyboard, violin, drums, 'music' |
| Visual arts | 39 | 39 | Art classes/extension (gifted), art gallery, art exhibition, wearable arts/trash to flash |
| Dance | 32 | 47 | Hip hop, jump jam dance, modern dance, dance groups/lessons, dance splash/sport |
| Cultural | 26 | 32 | Festivals, performance groups, Polyfest, Chinese, Korean, Indian, Pacific groups, Cook Island drumming |
| Drama | 22 | 26 | Theatre clubs/sports, drama and speech clubs/classes, movie/video making |

Activities related to kapa haka were listed by nearly all principals, while over 80 percent of principals listed activities related to performance events. About one third of principals at Year 4 and just under half at Year 8, listed regular school-wide activities focused on dance.

4. Teaching and learning dance

This section describes how teachers and principals responded to questions about teaching and learning in dance. The section begins by exploring who teaches dance at Year 4 and Year 8 and their qualifications and experiences. It then goes on to look at teachers' confidence and engagement in dance, school-wide policies and practices in dance, professional interactions related to dance, and the amount and quality of professional learning and development and professional support.

Responsibility for the teaching programme

Principals were asked the extent to which a specialist teacher was used within their school's dance teaching and learning programme. Table 4.4 shows how principals responded by year level. At Year 8, specialists taught all or nearly all of the dance programme in one third of schools. In contrast, at Year 4, classroom teachers taught dance with little or no added support in over three quarters of schools.

Table 4.4 Percentage frequency of principals reporting who delivers the teaching and learning programme for dance, by year level

| Response | Percentage of principals | |
|---|--------------------------|-------------|
| | Year 4 % | Year 8 % |
| A specialist teacher teaches all or nearly all the programme | 1 | 33 |
| Mainly taught by specialist with some teaching by classroom teacher | 3 | 16 |
| Mainly taught by classroom teacher with some support from specialist | 18 | 13 |
| Programme taught by classroom teacher with little or no added support | 77 | 37 |

Training and qualifications

Teachers were asked to indicate the qualifications, training and/or practical experience they had in dance by ticking all that applied from a list of possible qualifications. Figure 4.16 shows how teachers responded.

Overall, there was a relatively low proportion of teachers with each of these types of qualifications, training and/or practical experience in dance. A slightly greater proportion of Year 8 teachers reported each form of qualification, training or experience than Year 4 teachers; otherwise, there was little difference in the responses of Year 4 and Year 8 teachers. The most commonly reported qualification, training or experience was the teacher practising dance themselves, though only about 20 percent of teachers reported doing this.

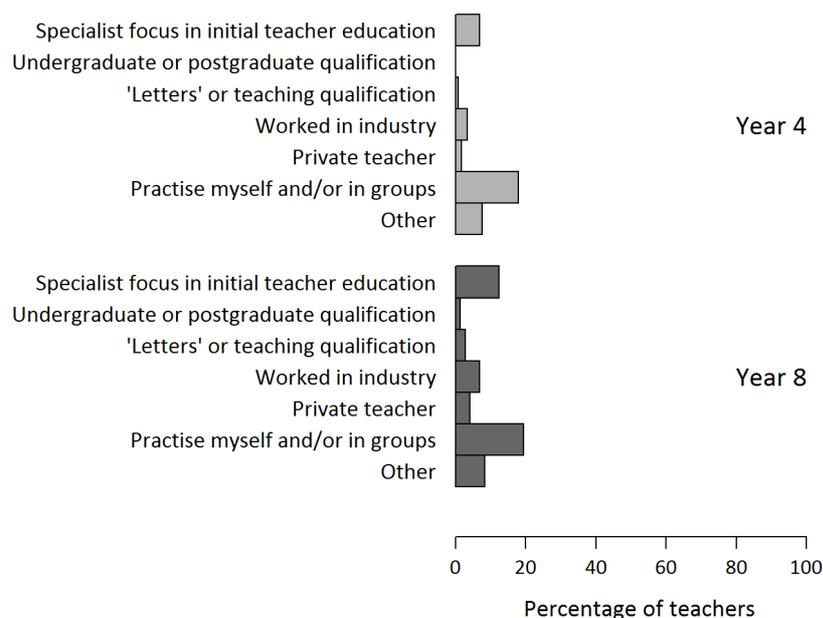


Figure 4.16 Percentage frequency of teachers' qualifications, training and/or practical experience in dance, by year level

Teachers were also able to indicate that they had other qualifications, training and/or practical experience in dance not provided in the list of qualifications. Some examples of 'other' responses from teachers were:

- attended adult community education dance courses in the past
- did ballet as a child
- took rock 'n roll lessons years ago
- have a daughter who is dancing for a career
- was involved in groups that choreographed dance when I was a teenager
- passed several exams in ballet, jazz and ballroom dance
- have taken several workshops about teaching dance.

Teacher confidence and engagement in teaching dance

Teachers were asked to indicate how true each of a series of statements was for them regarding their confidence and engagement with dance. Figure 4.17 shows the statements and how teachers responded. Teachers were more likely to indicate that they enjoyed taking part in or teaching dance than they were to indicate that they were confident in teaching or assessing dance. Greater proportions of Year 8, than Year 4 teachers, indicated that they didn't personally enjoy dance, or enjoy or feel confident in teaching and assessing dance.

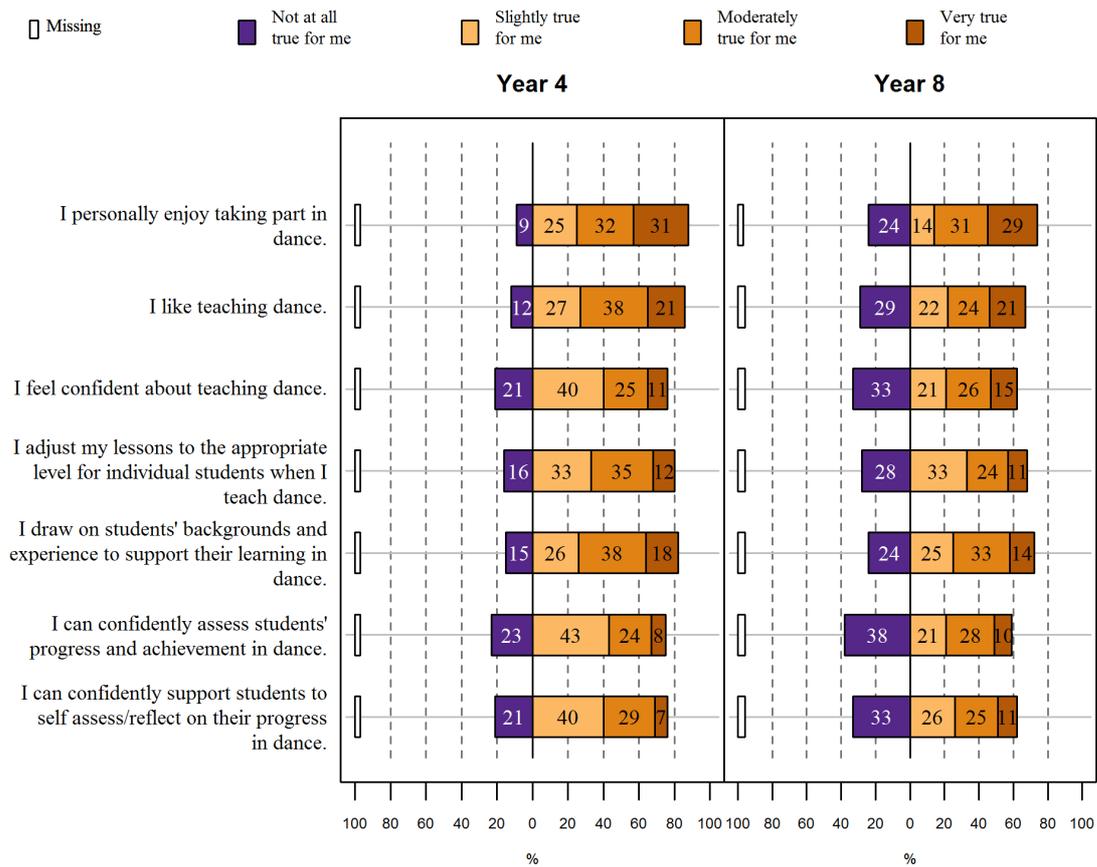


Figure 4.17 Percentage frequency of teachers' responses to statements about confidence and engagement in dance, by year level

Principals' views of teachers' knowledge and practices

Principals were asked to rate how much two statements describing teachers' levels of knowledge and practices resembled what happened in their schools. Figure 4.18 shows the statements and how principals responded.

Fewer Year 4 than Year 8 principals rated the statement 'teachers are implementing strategies to meet the needs of diverse learners in their class' for dance as either 'moderately like our school' or 'very like our school'.

Only 24 percent of Year 4 principals and 45 percent of Year 8 principals rated the statement 'teachers have appropriate pedagogical and content knowledge to identify and respond effectively to the learning needs of students in dance' as either moderately or very like their school.

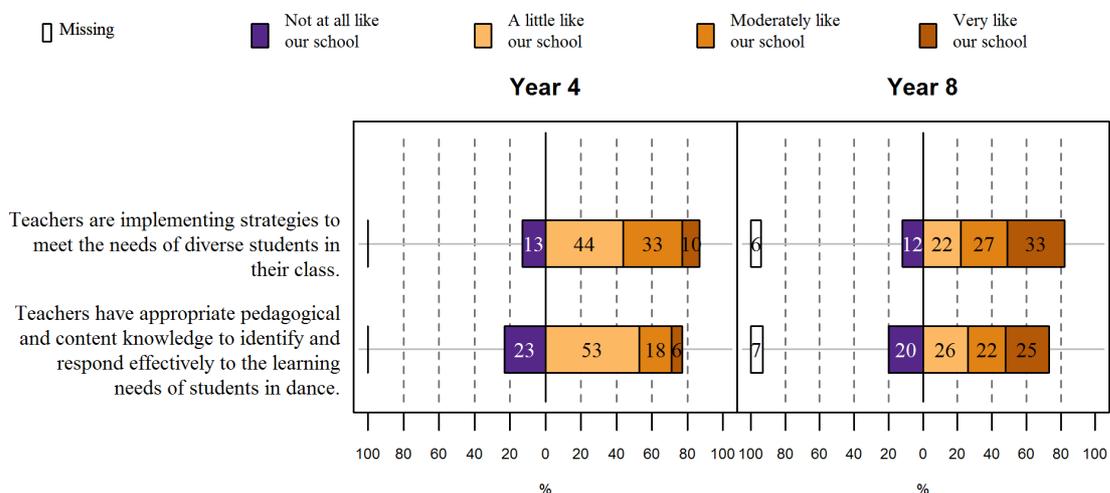


Figure 4.18 Percentage frequency of principals' responses to statements about their teachers' strategies and knowledge related to teaching dance, by year level

School policies and practices around curriculum, assessment and reporting

The principals also rated four statements related to curriculum, assessment and reporting. These statements related to comprehensive guidelines for teaching dance, coherent frameworks for assessment, systematic processes for data collection and analysis, and the provision of comprehensive information for parents about their child’s progress in dance. Figure 4.19 shows how principals responded to the statements.

Principals in Year 8 showed more agreement with each of the statements than those in Year 4. Principals in Year 4 were particularly negative about two of the statements, with a majority using ‘not at all like our school’ to respond to the statements describing clear assessment guidelines, and systematic collation and analysis of achievement data.

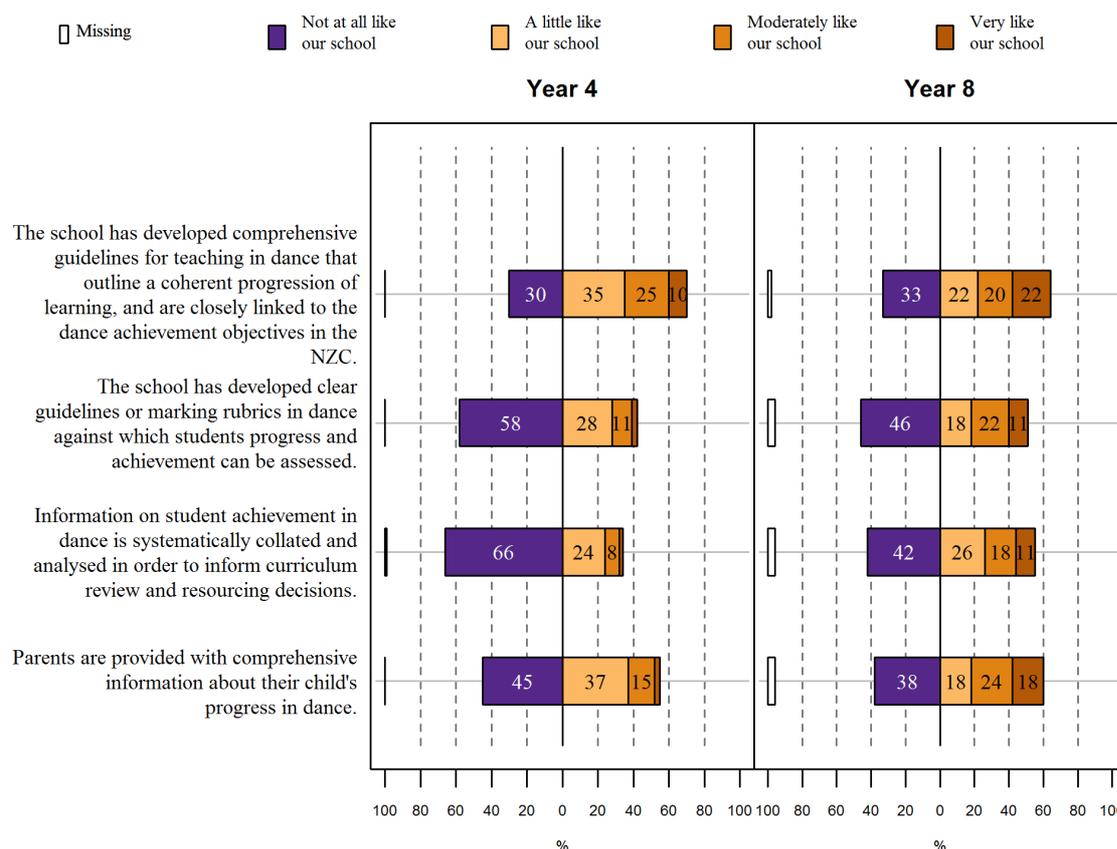


Figure 4.19 Percentage frequency of principals' responses to statements about curriculum, assessment and reporting policies and practices in dance, by year level

Strategies for instruction

Teachers were asked to indicate how often they used a range of instructional strategies to meet the different needs of students in their classes. Figure 4.20 presents a series of bar plots showing how teachers responded regarding each strategy at Year 4 and Year 8.

At Year 4, about 50 percent of teachers indicated that they often used whole class activities, while about 30 percent indicated they often used group-based activities. Very few Year 4 teachers reported often using ability groups or individualised programmes. At Year 8 about 40 percent of teachers often used whole class and about 30 percent indicated they often used group-based activities. About 20 percent often used ability groups and very few teachers often used individualised programmes.

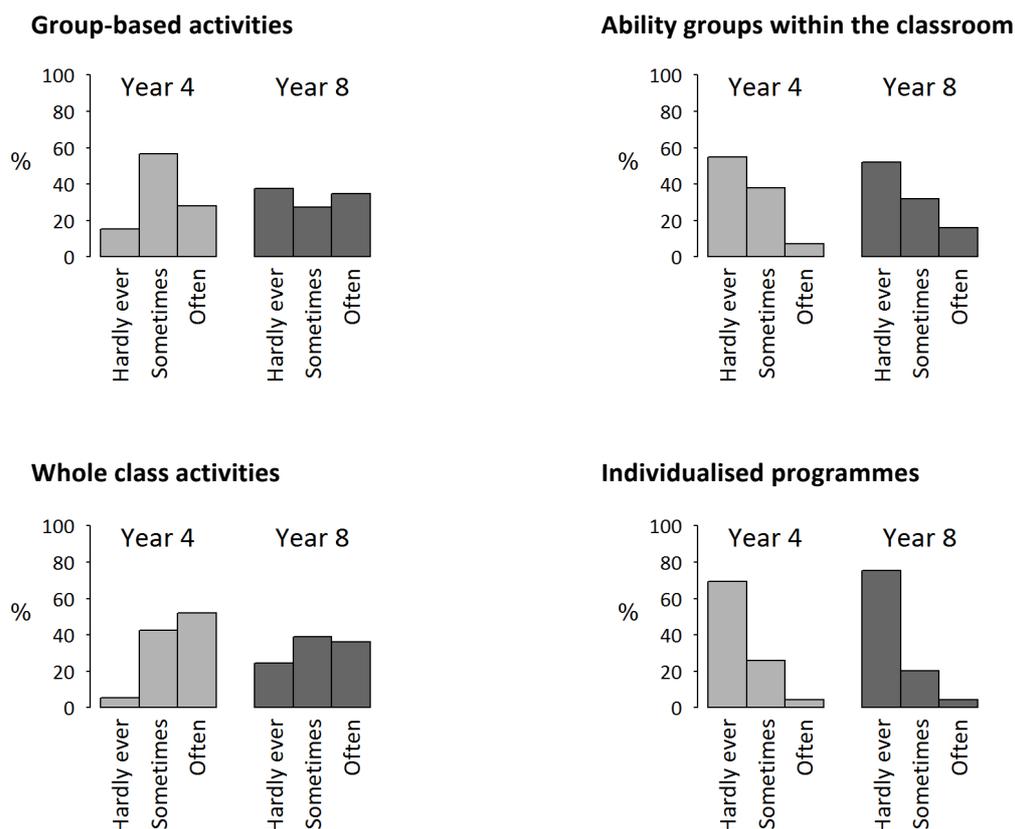


Figure 4.20 Percentage frequencies of different strategies for teachers meeting the differentiated needs of students in dance

Professional support for teaching and learning in dance

Teachers were presented with a range of professional interactions involving teaching and learning in dance, and asked to indicate how often they occurred. Figure 4.21 shows how teachers responded in relation to each of the described interactions.

For most of the listed interactions, the majority of teachers at each year level indicated that the professional interaction ‘never or almost never’ happened. The exceptions at Year 4 were ‘work with colleagues to develop long-term plans using the dance curriculum documents’ and ‘use the dance resources on TKI’; and at Year 8, ‘discuss with colleagues useful approaches for teaching dance to a diverse range of students’. In each of these cases, the proportion of teachers that reported the interaction never or almost never happened was close to half. Year 8 teachers were more likely than Year 4 teachers to report observing a colleague teaching dance, receiving feedback from a colleague on their teaching of dance, or working with a dance specialist to enhance their knowledge of dance. Year 4 teachers were more likely to report working with colleagues to develop long term plans using the dance curriculum documents or using the dance resources on TKI.

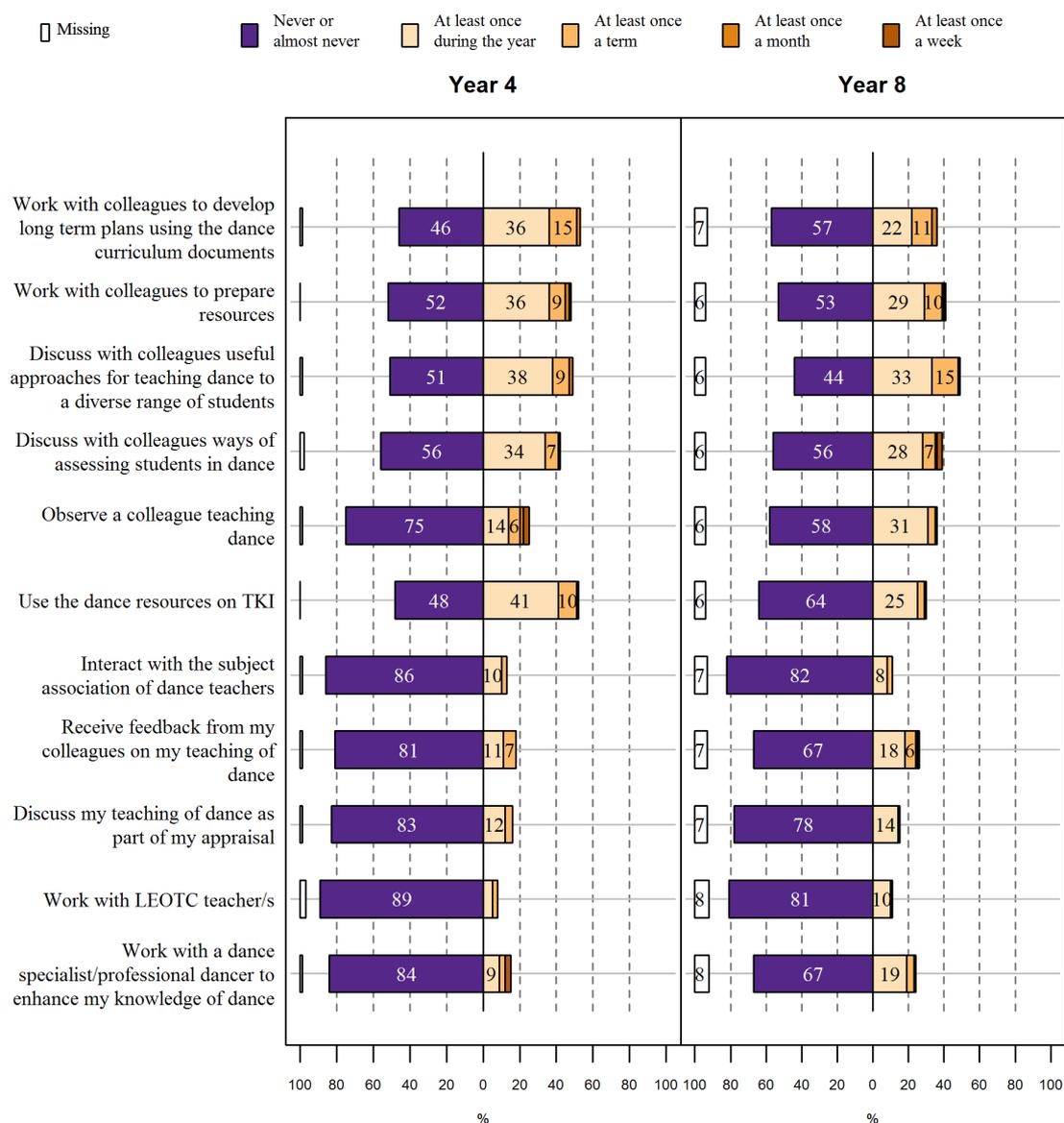


Figure 4.21 Percentage frequency of teachers' responses to statements about professional interactions related to teaching dance, by year level

Teachers were asked to rate the level of professional support that they received for their teaching of dance. Support was defined as: working with other teachers, school leaders or a dance specialist/advisor to prepare resources; discussing approaches to teaching or assessing dance; or observing a colleague teaching dance. Figure 4.22 shows how teachers rated the professional support that they received at Year 4 and Year 8. The majority of teachers rated support as ‘poor’ or ‘very poor’ at both year levels. Very few teachers rated it as ‘good’ or ‘excellent’.

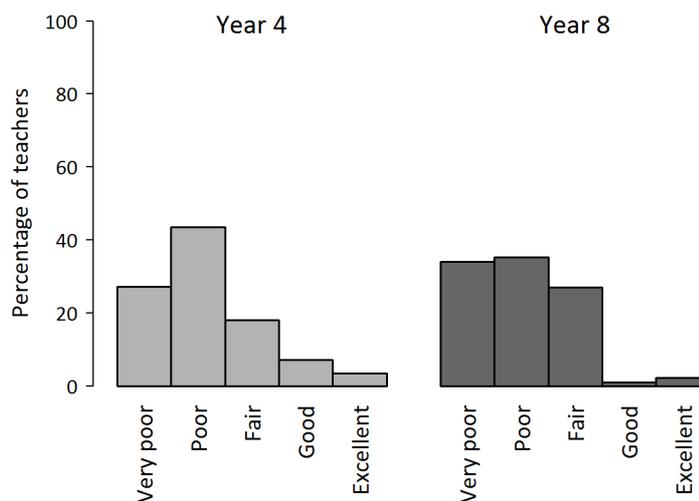


Figure 4.22 Percentage frequency of ratings by teachers about professional support they received for teaching dance

Professional learning and development

Teachers were asked if they had any opportunities for professional learning and development (PLD) focused on dance in the last 12 months. Nine percent of teachers at Year 4 and 15 percent of teachers at Year 8 indicated that they had received PLD in dance.

Teachers who had not had any opportunities for dance-focused PLD in the last 12 months were asked how long ago they had last received dance-focused PLD. Figure 4.23 shows that, at both year levels, over 50 percent had either never received dance-focused PLD, or the last PLD was more than six years ago.

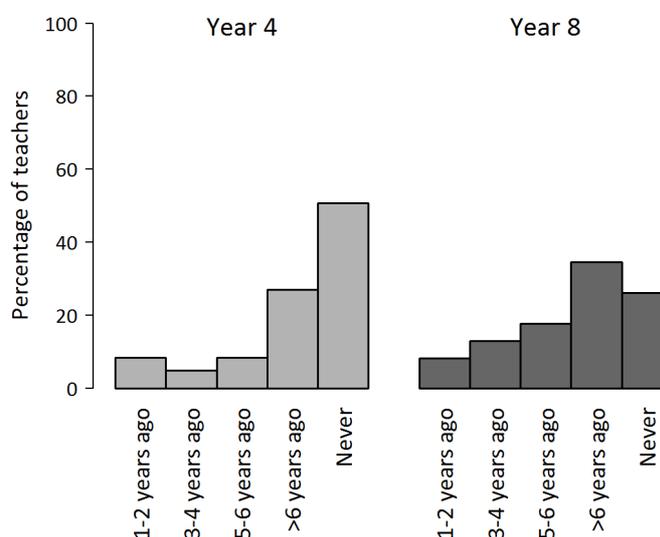


Figure 4.23 Percentage frequencies of teachers' responses regarding the last time they received PLD for dance if no PLD had occurred in the last 12 months, by year level

Principals were asked whether the school could access external professional support/PLD in dance for teachers. They responded by selecting from: ‘not at all or to a very limited extent’, ‘to a small extent’, ‘to a moderate extent’ and ‘to a large extent’. Thirty-five percent of Year 4 principals and 40 percent of Year 8 principals selected ‘not at all or to a very limited extent’. Twenty-eight percent of Year 4 principals and 34 percent of Year 8 principals indicated that they could access external support in dance to a moderate or large extent.

Principals were asked to indicate how well two statements about professional support for teachers described their school. Figure 4.24 shows how they responded.

Over two thirds of Year 4 principals and almost half of Year 8 principals rated the statement ‘the school has a comprehensive programme of professional development in dance’ as ‘not at all like our school’.

Only 25 percent of Year 4 principals and 47 percent of Year 8 principals rated the statement ‘teachers with the responsibility for dance are given appropriate support, including release time’ as moderately like or very like their school.

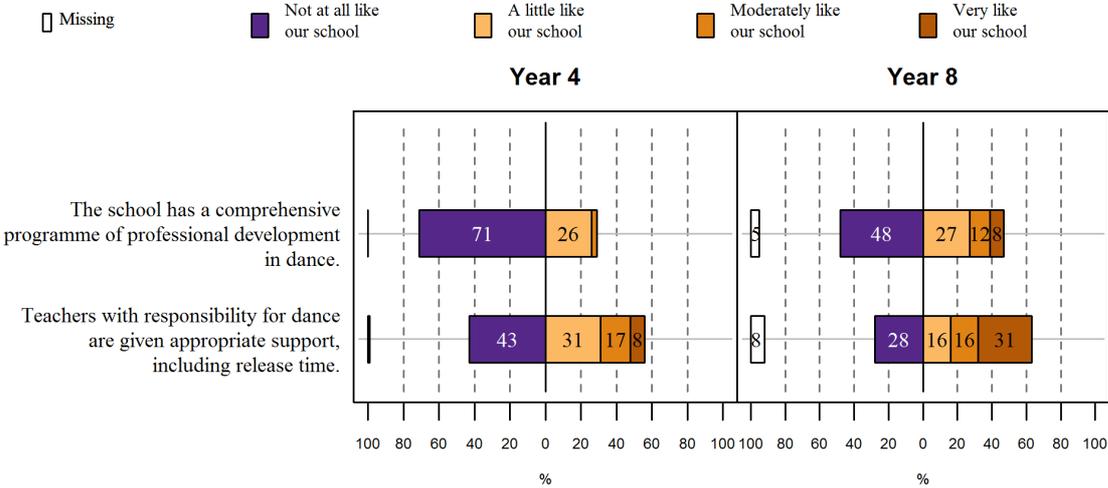


Figure 4.24 Percentage frequencies of principals' responses to statements about the professional support for teachers in dance, by year level

Principals were asked whether dance had been a focus area for development in their school in the last five years. Figure 4.25 shows how they responded. About 60 percent of principals indicated that dance had not been a focus for development in the last five years. The proportion of principals reporting some focus on dance was greater at Year 8 than Year 4. Very few principals, at either year level, said that dance had been a major focus for development.

Principals were asked to rate the priority given to dance compared to other learning areas. They responded by choosing from: ‘relatively low priority’, ‘some priority’ and ‘high priority’. Dance was given at least some priority by 64 percent of principals at Year 4 and 71 percent of principals at Year 8. A greater proportion of principals at Year 8 than at Year 4 indicated dance had a high priority (27 percent at Year 8 compared to 9 percent at Year 4).

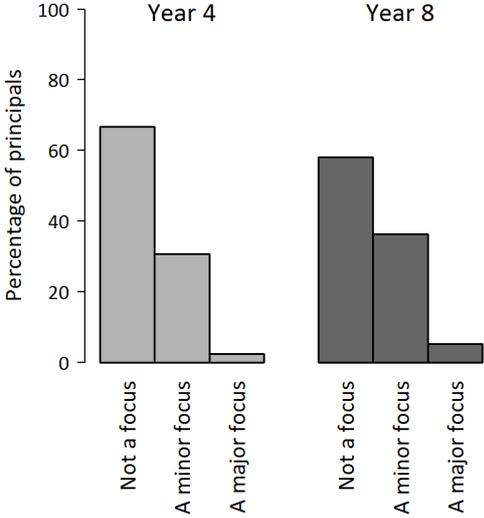


Figure 4.25 Percentage frequency of principals' responses regarding whether dance had been a focus area for development in the last five years, by year level

5. Resourcing dance

This section describes how teachers and principals responded to questions about the resourcing of the dance programme in their school.

Teachers' responses

Figure 4.26 shows how teachers responded when asked to select, from a list, the specialist spaces that were available to them for teaching dance.

With the exception of the school hall, a greater proportion of Year 8 than Year 4 teachers reported having access to each of the spaces. No Year 4 teachers reported having access to a dance studio; whereas, about 20 percent of Year 8 teachers did. Around 15 percent of teachers at each year level specified that there were other spaces available to them to teach dance that were not on the list. Many of these teachers specified their own classroom.

Teachers were also asked to select, from a list, the equipment that they had access to for teaching dance. Figure 4.27 shows how they responded. Year 4 teachers reported greater access to sound systems and camera/recorders than Year 8 teachers. Year 8 teachers reported greater access to lighting, and props and costumes than Year 4 teachers. 'Other' equipment that was not listed was specified by less than 10 percent of teachers at both year levels. Mirrors, iPads, musical instruments and projectors to show examples were mentioned by teachers at Year 4. A laptop used for music and a portable stage were mentioned by teachers at Year 8.

Principals' responses

Principals were asked to rate how well the statement 'the school has sufficient facilities, equipment and resources to allow full involvement of all students in learning dance' described their school. They responded by selecting from: 'not at all like our school', 'a little like our school', 'moderately like our school' and 'very like our school'. About 50 percent of Year 4 principals and over 60 percent of Year 8 principals responded using 'moderately like' or 'very like' their school.

About 30 percent of Year 4 principals and about 55 percent of Year 8 principals indicated that the statement 'the teachers responsible for delivering the classroom dance programme are highly effective in their use of teaching and learning resources to facilitate learning in dance' was moderately or very like their school.

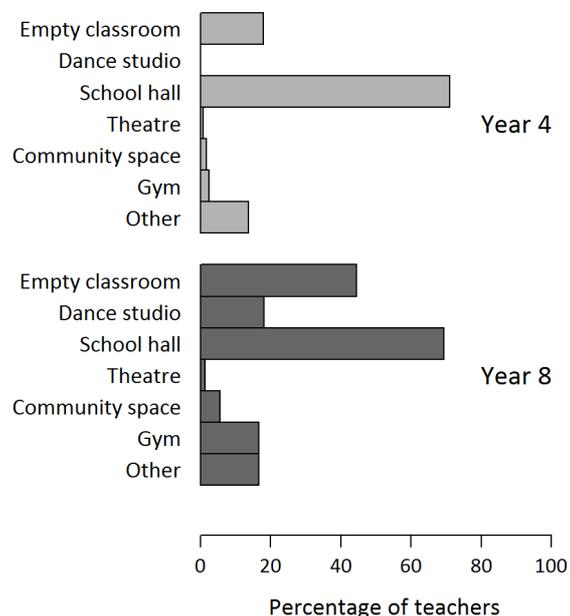


Figure 4.26 Percentage frequency of teachers' responses to specialist spaces available for teaching dance, by year level

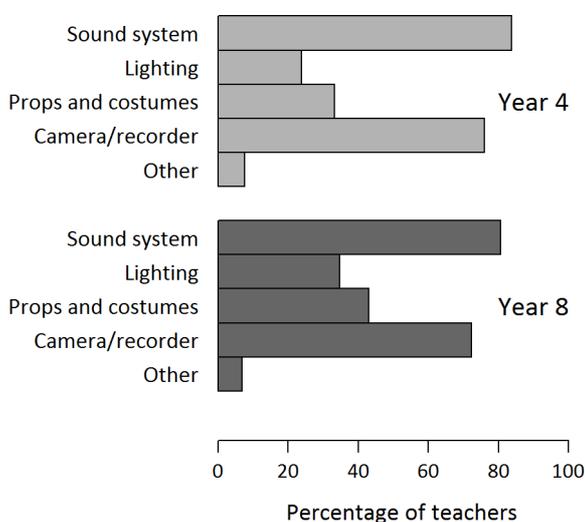


Figure 4.27 Percentage frequency of teachers' responses to which specialist spaces were available for teaching dance, by year level

Appendix: Summary Statistics

Tables:

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Note about the tables contained in Appendix 1

The structure of the NMSSA sample is complex: first schools are selected for the sample, and then clusters of students are selected from within those schools. While this is a practical solution to the challenge of drawing a representative sample of students from across New Zealand, it means that the width of confidence intervals around estimates of average scores will be underestimated if they are calculated using formulae that assume the sample was a simple random sample. To adjust for the clustering effect, NMSSA has determined an ‘effective sample size’ for each reporting group and used these to calculate all confidence intervals. The effective sample size is smaller than the actual sample size, and has the effect of increasing the width of the confidence intervals by about the right amount. The tables in this appendix provide the actual sample size and the adjusted sample size for each group reported on.

Table A1.1 Achievement on the Performance in Dance (PDa score units):
Summary statistics for Year 4 and Year 8 students

| Group | Actual sample size | Effective sample size | Mean | Confidence interval for the average | Standard deviation |
|---------------|--------------------|-----------------------|------|-------------------------------------|--------------------|
| Year 4 | | | | | |
| All | 237 | 166 | 93 | (90.0, 95.5) | 19 |
| Girls | 104 | 73 | 96 | (91.5, 101.0) | 20 |
| Boys | 133 | 93 | 90 | (86.5, 93.5) | 18 |
| Year 8 | | | | | |
| All | 166 | 116 | 107 | (103.5, 111.0) | 21 |
| Girls | 81 | 57 | 114 | (108.5, 119.5) | 21 |
| Boys | 85 | 60 | 101 | (96.0, 106.0) | 20 |

Table A1.2 Achievement on the Performance in Dance (PDa score units):
Differences between subgroup averages for Year 4 and Year 8 students

| Subgroup 1 | Subgroup 1 effective sample size | Subgroup 2 | Subgroup 2 effective sample size | Difference in averages | Confidence interval for difference in averages | Effect size |
|---------------|----------------------------------|------------|----------------------------------|------------------------|--|-------------|
| Year 4 | | | | | | |
| Girls | 73 | Boys | 93 | 6 | (0.5, 12.0) | 0.34 |
| Year 8 | | | | | | |
| Girls | 57 | Boys | 60 | 13 | (5.5, 20.0) | 0.63 |

Table A1.3 Achievement on the Performance in Dance (PDa score units):
Differences between Year 4 and Year 8 by subgroup

| Subgroup 1 | Year 8 effective sample size | Year 4 effective sample size | Difference in Year 8-Year 4 averages | Confidence interval for difference in averages | Effect size |
|------------|------------------------------|------------------------------|--------------------------------------|--|-------------|
| All | 116 | 166 | 15 | (10.0, 19.5) | 0.73 |
| Girls | 57 | 73 | 18 | (10.5, 25.0) | 0.86 |
| Boys | 60 | 93 | 11 | (5.0, 17.5) | 0.60 |

Table A1.4 Achievement on the Attitude to Dance (scale score units):
Summary statistics for Year 4 students

| Group | Actual sample size | Effective sample size | Average | Confidence interval for the average | Standard deviation |
|--------------------------------------|--------------------|-----------------------|---------|-------------------------------------|--------------------|
| All | 1087 | 761 | 102 | (100.0, 103.0) | 21 |
| Gender | | | | | |
| Girls | 506 | 354 | 110 | (108.5, 112.0) | 17 |
| Boys | 581 | 407 | 94 | (92.0, 96.0) | 20 |
| Ethnicity | | | | | |
| Māori | 229 | 160 | 104 | (101.0, 107.5) | 21 |
| Non-Māori | 858 | 601 | 101 | (99.0, 102.5) | 20 |
| Pasifika | 136 | 95 | 107 | (103.5, 111.0) | 19 |
| Non-Pasifika | 951 | 666 | 101 | (99.0, 102.5) | 21 |
| NZE | 627 | 439 | 100 | (97.5, 101.5) | 21 |
| Non-NZE | 460 | 322 | 104 | (102.0, 106.5) | 20 |
| Asian | 133 | 93 | 98 | (94.0, 101.5) | 20 |
| Non-Asian | 954 | 668 | 102 | (100.5, 103.5) | 21 |
| School decile | | | | | |
| Low decile | 287 | 201 | 106 | (103.5, 109.0) | 20 |
| Mid decile | 392 | 274 | 99 | (96.0, 101.0) | 20 |
| High decile | 408 | 286 | 101 | (98.5, 103.5) | 20 |
| Special education needs (SEN) | | | | | |
| No SEN | 1015 | 710 | 102 | (100.0, 103.0) | 20 |
| SEN (combined) | 72 | 50 | 101 | (94.5, 107.0) | 23 |

Table A1.5 Achievement on the Attitude to Dance (scale score units):
Summary statistics for Year 8 students

| Group | Actual sample size | Effective sample size | Average | Confidence interval for the average | Standard deviation |
|--------------------------------------|--------------------|-----------------------|---------|-------------------------------------|--------------------|
| All | 1048 | 734 | 99 | (97.0, 100.0) | 19 |
| Gender | | | | | |
| Girls | 508 | 356 | 106 | (104.5, 108.0) | 19 |
| Boys | 540 | 378 | 91 | (89.5, 93.0) | 17 |
| Ethnicity | | | | | |
| Māori | 221 | 155 | 99 | (96.0, 102.0) | 20 |
| Non-Māori | 827 | 579 | 98 | (97.0, 100.0) | 19 |
| Pasifika | 112 | 78 | 104 | (100.0, 108.5) | 18 |
| Non-Pasifika | 936 | 655 | 98 | (96.5, 99.5) | 19 |
| NZE | 619 | 433 | 97 | (95.5, 99.0) | 19 |
| Non-NZE | 429 | 300 | 100 | (98.0, 102.5) | 20 |
| Asian | 98 | 69 | 100 | (95.0, 104.5) | 20 |
| Non-Asian | 950 | 665 | 98 | (97.0, 100.0) | 19 |
| School decile | | | | | |
| Low decile | 226 | 158 | 101 | (98.0, 104.5) | 20 |
| Mid decile | 370 | 259 | 98 | (95.5, 100.0) | 19 |
| High decile | 452 | 316 | 98 | (96.0, 100.0) | 19 |
| Special education needs (SEN) | | | | | |
| No SEN | 986 | 690 | 98 | (97.0, 100.0) | 19 |
| SEN (combined) | 60 | 42 | 101 | (94.0, 107.0) | 22 |

Table A1.6 Achievement on the Attitude to Dance (scale score units):
Differences between subgroup averages for Year 4 students

| Subgroup 1 | Subgroup 1 effective sample size | Subgroup 2 | Subgroup 2 effective sample size | Difference in averages | Confidence interval for difference in averages | Effect size |
|--------------------------------------|----------------------------------|----------------|----------------------------------|------------------------|--|-------------|
| Gender | | | | | | |
| Girls | 354 | Boys | 407 | 16 | (13.5, 19.0) | 0.86 |
| Ethnicity | | | | | | |
| Māori | 160 | Non-Māori | 601 | 3 | (-0.5, 7.0) | 0.16 |
| Pasifika | 95 | Non-Pasifika | 666 | 7 | (2.5, 10.5) | 0.32 |
| Asian | 93 | Non-Asian | 668 | -4 | (-8.5, 0.0) | -0.21 |
| NZE | 439 | Non-NZE | 322 | -5 | (-7.5, -2.0) | -0.23 |
| Decile band | | | | | | |
| High decile | 286 | Mid decile | 274 | 2 | (-1.0, 6.0) | 0.12 |
| High decile | 286 | Low decile | 201 | -5 | (-8.5, -1.5) | -0.25 |
| Mid decile | 274 | Low decile | 201 | -7 | (-11.0, -4.0) | -0.37 |
| Special education needs (SEN) | | | | | | |
| No SEN | 710 | SEN (combined) | 50 | 1 | (-5.5, 7.0) | 0.04 |

Table A1.7 Achievement on the Attitude to Dance (scale score units):
Differences between subgroup averages for Year 8 students

| Subgroup 1 | Subgroup 1 effective sample size | Subgroup 2 | Subgroup 2 effective sample size | Difference in averages | Confidence interval for difference in averages | Effect size |
|--------------------------------------|----------------------------------|----------------|----------------------------------|------------------------|--|-------------|
| Gender | | | | | | |
| Girls | 356 | Boys | 378 | 15 | (12.5, 17.5) | 0.83 |
| Ethnicity | | | | | | |
| Māori | 155 | Non-Māori | 579 | 1 | (-3.0, 4.0) | 0.03 |
| Pasifika | 78 | Non-Pasifika | 655 | 6 | (2.0, 10.5) | 0.33 |
| Asian | 69 | Non-Asian | 665 | 1 | (-3.5, 6.0) | 0.06 |
| NZE | 433 | Non-NZE | 300 | -3 | (-6.0, -0.0) | -0.16 |
| Decile band | | | | | | |
| High decile | 316 | Mid decile | 259 | 0 | (-3.0, 3.5) | 0.01 |
| High decile | 316 | Low decile | 158 | -3 | (-7.0, 0.5) | -0.17 |
| Mid decile | 259 | Low decile | 158 | -3 | (-7.5, 0.5) | -0.18 |
| Special education needs (SEN) | | | | | | |
| No SEN | 690 | SEN (combined) | 42 | -2 | (-9.0, 4.5) | -0.11 |

Table A1.8 Achievement on the Attitude to Dance (scale score units):
Differences between Year 4 and Year 8 by subgroup

| Subgroup 1 | Year 8 effective sample size | Year 4 effective sample size | Difference in Year 8-Year 4 averages | Confidence interval for difference in averages | Effect size |
|--------------------------------------|------------------------------|------------------------------|--------------------------------------|--|-------------|
| All | 734 | 761 | -3 | (-5.0, -1.0) | -0.15 |
| Gender | | | | | |
| Girls | 356 | 354 | -4 | (-6.5, -1.5) | -0.22 |
| Boys | 378 | 407 | -3 | (-5.5, -0.0) | -0.14 |
| Ethnicity | | | | | |
| Māori | 155 | 160 | -5 | (-9.5, -0.5) | -0.25 |
| Pasifika | 78 | 95 | -3 | (-8.5, 2.5) | -0.16 |
| Asian | 69 | 93 | 2 | (-4.5, 8.0) | 0.09 |
| NZE | 433 | 439 | -2 | (-5.0, 0.5) | -0.11 |
| Decile band | | | | | |
| Low decile | 158 | 201 | -5 | (-9.0, -0.5) | -0.24 |
| Mid decile | 259 | 274 | -1 | (-4.5, 2.5) | -0.05 |
| High decile | 316 | 286 | -3 | (-6.5, -0.0) | -0.16 |
| Special education needs (SEN) | | | | | |
| SEN (combined) | 42 | 50 | 0 | (-9.5, 9.0) | -0.01 |

