Attitudes and motivation

The national monitoring assessment programme recognises the impact of attitudinal and motivational factors on student achievement in individual assessment tasks. Students' attitudes, interests and liking for a subject have a strong bearing on progress and learning outcomes. Students are influenced and shaped by the quality and style of curriculum delivery, the choice of content and the suitability of resources. Other important factors influencing students' achievements are the expectations and support of significant people in their lives, the opportunities and experiences they have in and out of school, and the extent to which they have feelings of personal success and capability.

Science survey

The national monitoring science survey sought information from students about their curriculum preferences and their perceptions of their achievement and potential in science. Students were also asked about their involvement in science related activities within school and beyond. There are numerous research questions that could be asked when investigating student attitudes and engagement. In national monitoring it has been necessary to focus on a few key questions that give an overall impression of how students regard science in relation to themselves.

Each survey was administered in a session containing team and independent tasks. The surveys included 16 questions that could be responded to by ticking or circling a chosen response. Responses to these 16 questions are summarised in the large table on the next page. Two questions required written responses, which are summarised below.

Students were asked to indicate their first three preferences from a list of six class science activities. The percentages choosing each activity as first preference and as one of the top three preferences are tabulated below.

Science Activity	1ST CHOICE		TOP 3	
	% responses		*% responses*	
	GEd	MI	GEd	MI
being told about science	5	14	24	31
being shown about science	14	14	76	52
reading about science	1	14	18	58
talking about science	0	0	24	41
going on field trips	40	41	79	74
doing things like experiments	40	17	78	42

Two activities ("going on field trips" and "doing things like experiments") were strong first preferences for Māori students in general education. Students in Māori immersion programmes favoured "going on field trips" over all other activities. When the top three preferences were considered, all of the activities with an experimental emphasis were strongly favoured by Māori students in general education, but "going on field trips" was the only activity strongly favoured by students in Māori immersion programmes.

One open-ended question was asked. Responses to the question "What do you like doing most in science in your own time" were coded into 9 categories. Easily the most popular category for Māori students in general education was "doing experiments" (47% of students). That was also the most popular category for students in Māori immersion programmes, but the level of support was much lower (9% of students).

STUDENT RESPONSES TO THE YEAR 8 SCIENCE SURVEY

percentages — Māori students in general education *Māori immersion students*

1. How much do you like doing science at school?				
	37 51	52 37	9 10	2 2
2. How much do you think you learn about science at school?	*heaps*	*quite a lot*	*some*	*very little*
	14 14	39 59	42 25	5 2
3. Would you like to do more or less science at school?	*more*	*about same*	*less*	
	41 45	52 53	7 2	
	heaps	*quite a lot*	*sometimes*	*never*
4. How often does your class do really good things in science?	7 10	18 29	69 55	6 6
5. How often do you do these things in science at school?				
a. Field trips/work outside	6 6	11 22	53 56	30 16
b. Visit science activities	4 9	9 30	50 35	37 26
c. Research/projects	18 10	34 39	47 45	1 6
d. Group work	25 28	39 42	35 28	1 2
e. Experiments with everyday things	7 6	19 36	54 45	20 13
f. Experiments with science equipment	9 7	28 29	39 41	24 23
g. Science competitions	2 4	8 20	54 49	36 27
6. How good do you think you are at science?				
	9 36	66 48	18 14	7 2
	heaps	*quite a lot*	*sometimes*	*never*
7. How much do you like doing science things in your own time, when you're not at school?	13 22	25 34	46 31	16 13
8. Do you do some really good things in science in your own time — when you're not at school?	7 5	12 34	49 36	32 25
	yes	*maybe*	*no*	
9. Do you want to keep learning about science when you grow up?	32 40	62 49	6 11	
10. Do you think you would make a good scientist when you grow up?	3 23	39 37	58 40	

Compared to Māori students in general education, students in Māori immersion programmes were somewhat more supportive of science programmes at school and science activities in their own time. They also reported that their school programmes included higher levels of field trips, visits to science activities, and experiments with everyday things. The most notable differences, however, were that much higher proportions of students in immersion programmes were very positive about how good they thought they were at science and about their suitability to be good scientists when they grew up.

Art survey

The survey included one item which asked students to select three preferences from a list, thirteen items which asked students to record a rating response by circling their choice, one item which asked them to tick boxes to indicate frequency of activities, and one item which asked them to list preferred activities.

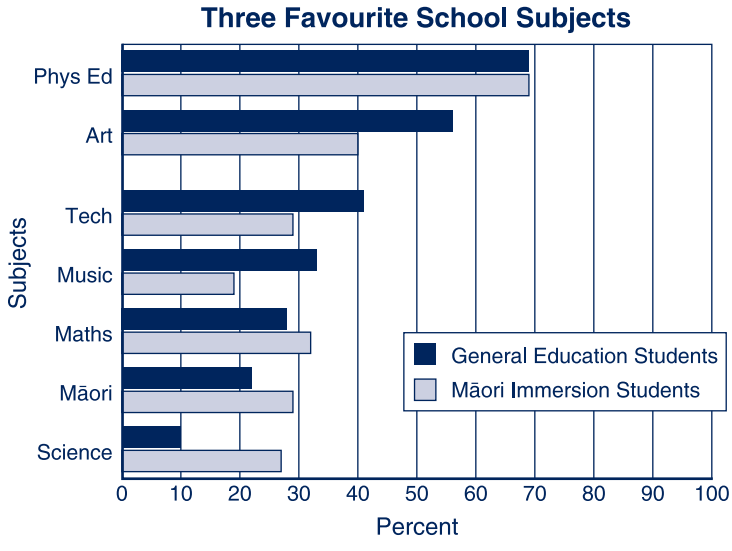
Students were asked to rate how often they did eight different types of art activities at school, and how often they took part in group activities during art. Māori students in general education indicated that drawing was their most frequent art activity, followed by painting, with all other activities much less frequent. Drawing was also first for students in Māori immersion settings, but the other activities were more evenly experienced. Painting and making models were second equal, followed by working with fabrics/weaving, and then printmaking. Carving was rarely experienced in general education, and also drew the highest number of "never" responses in Māori immersion settings. Students in Māori immersion settings experienced group activities in art a little more frequently.

Students were asked an open question: "What do you like doing most in art in your own time?" For Māori students in general education, drawing was the most highly rated activity, followed by painting, with all other activities much less popular. For students in Māori immersion settings, several art making activities were popular (painting, drawing, weaving, crafts).

Responses to the thirteen rating items are presented in the table on the next page. The results show that, compared to Māori students in general education, students in Māori immersion programmes felt they learned more about art at school, were more positive about their own abilities in art, and reported a wider range of art making experiences at school. Most dramatically, far fewer (8 percent versus 47 percent) answered "don't know" to the question "How good does your teacher think you are at art?"

Overview

Students were also asked to select their three favourite school subjects from a list of twelve subjects. Among the Māori students in general education, physical education was the most popular subject, listed as first, second or third choice by 69 percent of students. Art rated second (56 percent), technology third (41 percent), music fourth (33 percent), maths fifth (28 percent), and Māori sixth (22 percent). Among the students in Māori immersion programmes, physical education was again first (69 percent) and art again second (40 percent). Maths was third (32 percent), Māori and technology fourth equal (29 percent) and science sixth (27 percent).



YEAR 8 STUDENTS RESPONSES TO ART SURVEY QUESTIONS

percentages — Māori students in general education Māori immersion students

1. How much do you like doing art at school?




heaps	*quite a lot*	*some*	*little*
64 54	26 37	6 7	4 2

2. How much do you think you learn about art at school?

29 15	38 50	29 35	4 0

3. How often does your class do really good things in art?

13 11	31 36	51 49	5 4

4. How often do you do these things in art at school?

	heaps	*quite a lot*	*sometimes*	*never*		*heaps*	*quite a lot*	*sometimes*	*never*
drawing	34 33	30 36	34 27	2 4	making models	10 19	11 35	41 23	38 23
painting	17 18	25 28	53 37	5 17	working with clay	7 2	14 32	40 28	39 38
print making	8 15	12 25	53 33	27 27	work with fabrics/				
collage	6 8	9 33	52 39	33 20	weaving	9 21	17 16	41 39	33 24
carving	6 16	5 11	26 30	63 43	group activities	35 42	25 33	32 21	8 4

	heaps	*quite a lot*	*sometimes*	*never*
5. How often do you look at art and talk about art at school?	14 21	34 37	40 38	12 4
6. How often do you learn new things in art at school?	8 25	52 40	36 31	4 4




				don't know
7. How good do you think you are at art?	22 50	47 25	14 11	7 6	10 8
8. How good does your teacher think you are at art?	21 37	22 35	10 8	0 12	47 8
9. How good does your mum or dad think you are at art?	43 49	25 33	10 6	0 4	22 8

10. How much do you like doing art things in your own time — when you're not at school?	47 39	30 34	15 19	8 8

	heaps	*quite a lot*	*sometimes*	*never*
11. Do you do really good things in art in your own time — when you're not at school?	19 15	21 29	49 46	11 10

	yes	*maybe*	*no*
12. Do you want to keep learning about art when you grow up?	49 51	45 37	6 12
13. Do you think you would make a good artist when you grow up?	13 17	53 45	34 28