

NZCER evaluation of the Regional Education for Enterprise (E4E) Clusters:

Report on student survey data from Term 4, 2008

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Introduction

In term 4 2008, NZCER sent out survey packs to schools involved in the four Education for Enterprise (E4E) regional clusters. Each pack included up to forty surveys for students who have been involved in a class or extra-curricular project or unit of work which has involved an E4E approach. This report provides a summary of the responses we received from students.

Please note that a final report on the Regional E4E clusters initiative is currently being written. The final report will include findings from a broad range of qualitative and quantitative data collected in the clusters during 2007 and 2008. The summary of student survey data from 2008 presented in this mini-report is intended to provide interim feedback for schools and clusters involved in E4E prior to the release of the final report in mid-2009.

Survey returns

Table 1 below shows the number of student surveys received from schools in each of the four clusters. Altogether 409 student surveys were received from across 18 schools. The number of student surveys returned per school ranged from 2 to 38.

Table 1: Total number of student surveys returned at the end of 2007

Cluster	Number of students	Number of schools
Auckland Cluster	106	3
Nelson Cluster	124	4
Northland Cluster	91	5
West Coast Cluster	89	6
Total	410	18

Interpreting the graphs in this report

The information is based on two types of responses from students. Firstly, ratings of sets of items on Likert-type scales (such as “strongly agree” to “strongly disagree”, or “got worse” to “got a lot better”) and secondly comments about what had helped them to improve and about E4E in general. These comments have been coded (grouped into broad categories) and the percentage of students giving each response is presented in tables.

Which students responded to the E4E survey?

In the overall sample we received survey responses from students spanning Years 6 to 13. Just under half of all responses were from students at the junior secondary level (Years 9 or 10), while 30 percent were at senior secondary level (Years 11-13). Seventeen percent of the respondents were in the upper primary school years¹ (Years 6-8).

¹Although the survey was not intended for students younger than Year 6, we did receive two completed surveys from younger primary students.

The predominance of secondary students in the survey is consistent with the nature of the schools involved in the clusters; most are secondary schools, although there are a few area schools and intermediate schools.

Table 2: Year level of students who completed a survey

Year level	Number of Students (<i>n</i>)
6	9
7	20
8	42
9	33
10	163
11	12
12	54
13	63
Total	396

The context for students’ E4E experiences

Eighty percent of students said their E4E project occurred as part of one of their classes or subjects. As Table 3 shows, enterprising learning activities were occurring across a variety of classes/subjects. Just under a third of the students’ E4E occurred in either “enterprise” classes or business/commerce-related classes. English, science, health, design, technology and trades-linked subjects provided enterprising learning opportunities for smaller numbers of students, as did mathematics, arts, and horticulture. Some students (particularly in primary classes) were doing E4E as part of an integrated classroom programme.

Table 3: Classes/subjects involved

Context specified	% students (all schools)
Enterprise (includes YES, PrEP, Enterprise, SELL)	19
Business studies, economics, accounting	13
English, drama, media studies	10
Science	9
Design, technology, and trades	8
Integrated subjects (e.g. Primary class or integrated studies)	6
Mathematics	4
Other	3
Health and physical education	2
Art or music	1
Horticulture	1

Twelve percent of students were doing enterprising learning as an “extra-curricular” activity. These included activities like school healthy eating committees (3 percent),

Future Problem Solving, the BP Community Enterprise project, or other “business challenge” projects (3 percent), performance or social activities like Stage Challenge, musical performances, or organising the school ball (2 percent), science fair (1 percent), and volunteer work (1 percent).

The nature of the E4E projects

We asked students to describe in their own words what their E4E project involved. Naturally, the specific details of each E4E project varied considerably; however it was possible to categorise the most common types of projects as shown in Table 4.

Table 4: Students’ descriptions of what the E4E project involved

What the E4E project involved	% students (all schools)
Designing a product, planning an event, or delivering a service for a specified client or purpose (either within school, or outside the school)	35
Designing, making and/or selling a product (not for a specific client)	34
Authentic learning linked to the “real world” (e.g. learning in a real-world context)	12
Writing, performing, or producing a performance (e.g. a radio show, stage challenge)	8
Researching and solving a school or community or local problem	5
Other	4

Creating or doing something for a specific client or purpose

Over a third (35 percent) of the students’ E4E experiences involved designing a product, planning or promoting an event, or delivering a service with a specific client or purpose at the outset. In most of these cases, the client or beneficiary of students’ E4E activities appeared to be people or groups from outside the school, for example:

- Rebuilding a computer to donate to the local primary school
- Designing a logo for a local business
- Writing a book for junior primary students
- Designing meals for Meals on Wheels suitable for particular groups of elderly people in the community.

For a few students, the client or purpose for the students’ activities appeared to be someone within the school, or the students were doing something as a service to the school, for example:

- Landscaping school grounds or investigating ways the school could be more environmentally friendly
- Designing a maths game for special education students
- Promoting healthy food choices within the school.

Creating or doing something without a specific client at the outset

Just over a third of the students (34 percent) described an E4E activity in which they designed and sold a product or delivered a service without an actual client at the outset (though some of the products or services appeared to be designed with a hypothetical target market in mind). These kinds of activities tended to be associated with YES-types of activities. For example:

- Designing, making, and selling a product at a school “market day”.
- Forming a small model business and developing a concept — such as headphone design for teenagers — and a business plan.
- Creating a product or event to raise money for school activity (a school camp, or a pet day)

Other kinds of E4E activities

Twelve percent of students described activities in which learning — most often in science — was grounded in a “real-world” context: for example, learning about forces in the context of road crash investigations, or collecting local weather data for a global weather monitoring project.

Eight percent had been involved in writing, presenting, or producing some kind of performance (such as a film documentary, radio play, musical performance or Stage Challenge). Finally, 3 percent had worked on solutions to a local issue or challenge.

How students worked on their E4E projects

Figure 1 shows how students worked during their E4E projects, compared with how they normally work in their (other) classes. Students appeared to see some clear differences between their enterprising learning and their other learning. For example, in the overall sample, 86 percent of students felt that through their E4E activities they had made or done something that was useful or important for someone other than themselves. By contrast, only half the students felt this happened often or very often in their other classes or learning. Most students reported: working on their E4E activities in groups (84 percent), using knowledge and skills from more than one curriculum area (80 percent), having extended time periods to work on their projects in-depth (79 percent) and having different roles and responsibilities for different people within their groups (78 percent).

Each of these things was more often reported to happen in the E4E learning experience than in most other classes/learning.

Sixty-four percent of students' enterprising learning involved working with people from business or the community. This was almost triple the number of students who said that they often or very often did this in their normal class learning. It was generally less common for students to work outside the school, or with students from other year levels in their school, either in E4E or in other classes/learning.

Figure 1: How the students worked on their E4E projects

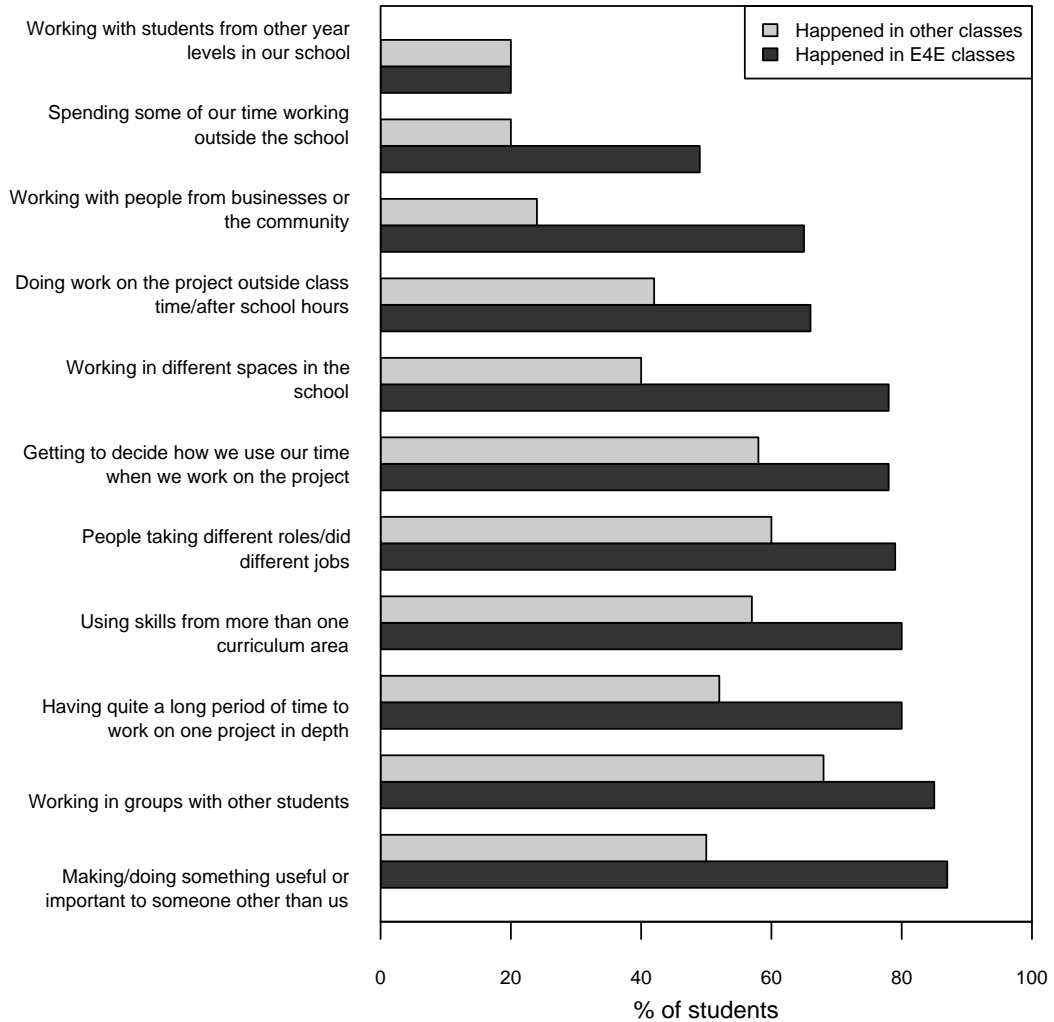


Table 5 shows the people that were involved with the students’ E4E activities, and how they were involved. Perhaps not surprisingly, teachers were the most common source of advice and feedback for students. Teachers were also the most common audience for student ideas or presentation. Over half the students also got help or advice, or presented their ideas to other students in the class or project. It was less common for students to get advice or feedback from, present their ideas to, in business/community. However, people in the business or community were the most common recipients of the students’ work, with 47 percent of students saying they produced a product that would be used for a real purpose by people in the business or community.

Table 5: Who was involved in the students’ E4E activities (% students, all schools)

	Our teacher	Other students in our class	People in community/business	Other staff or parents/family	Students in other classes/schools
We got help/advice/info from...	83	62	46	39	19
We got feedback on our work from...	79	36	39	32	24
We presented our ideas to...	65	54	46	31	33
We produced a product for a real purpose to be used by...	28	39	48	31	38

Ownership and decision-making

In order to gauge students’ opportunities to make decisions about their E4E work we provided them with a five-step “ladder” where the bottom step described a class in which all decisions about student learning were made by the teacher, and the top step in which decisions were made by students with a small amount of help from their teacher. To give an indication of how E4E practice compared with students’ other learning experiences at school, the same question was given to students in the early 2007 “general” student survey². As Table 6 shows, there was a clear difference. In the end of 2008 E4E student surveys, more than three-quarters of students (79%) placed themselves on the upper two rungs of the ladder, compared with only 18 percent of students in the general survey. This suggests that students perceived themselves to have a great deal of involvement and direction in decision-making in the context of their E4E activities.

²The general Teaching and Learning survey was completed by 1682 students from 26 schools in the E4E clusters mid-way through 2007. This survey was designed to explore what students thought about school and the ways they learn at an early stage in the evaluation. The survey was about whole-school practices, i.e. learning opportunities aligned with key competencies, 21st century learning ideas, E4E principles, etc., not just E4E activities and/or enterprising learning experiences. This wide focus was designed to suit schools at the start of an E4E journey (that may not have had E4E learning opportunities in place) through to schools that could have embedded E4E across the curriculum.

Table 6: Who made the decisions on your project?

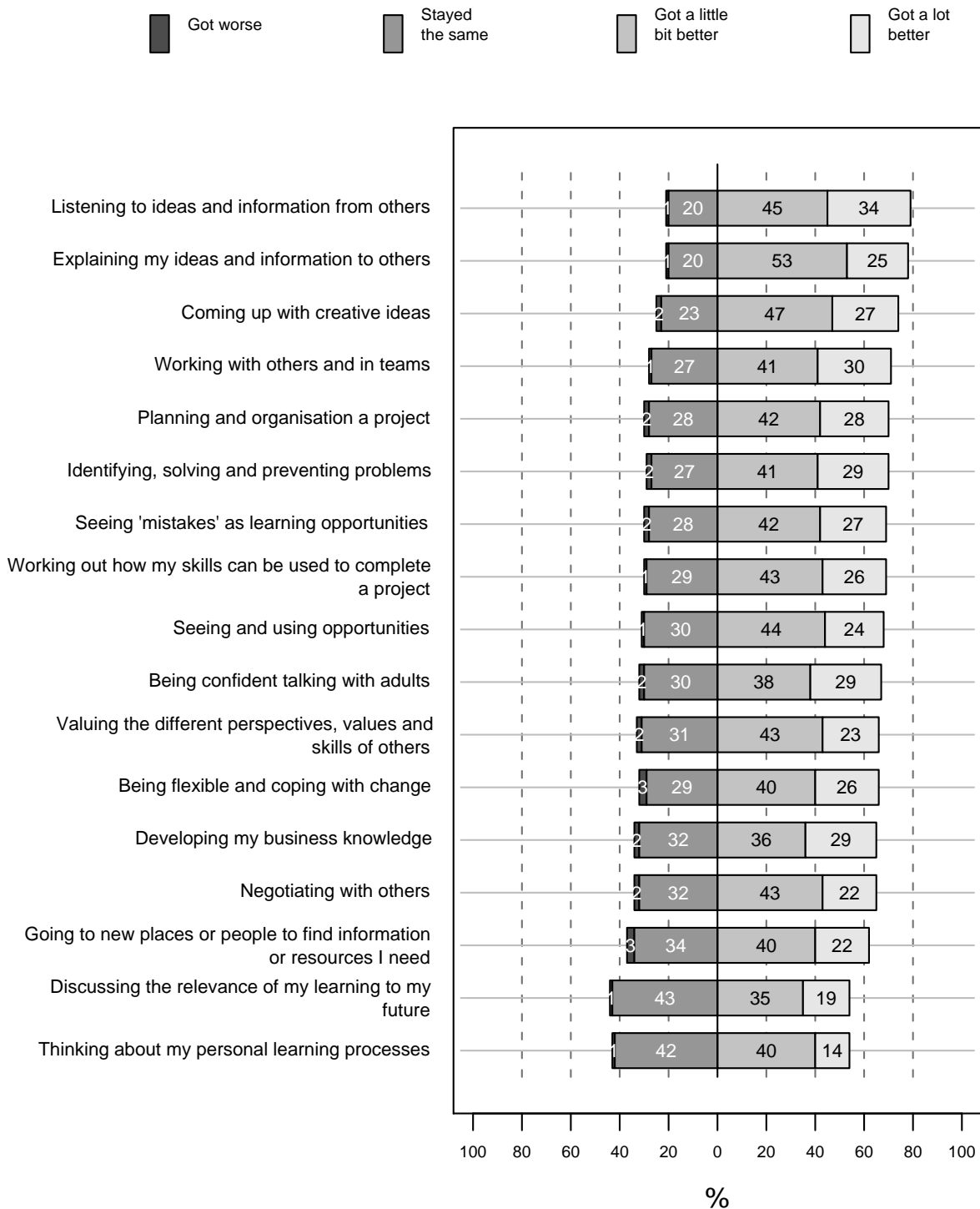
Most of the time ...	% students (all schools)	% students general sample (all schools)
... we decided how we should do our project with a small amount of help from a teacher	51	5
... we worked together with a teacher to decide how we should do our project	28	13
... a teacher asked for our ideas when he/she made decisions about how we should do our project	8	21
... a teacher told us how we should do our project, but he/she seemed to think about our ideas and interests first	5	30
... a teacher told us how to do our project, without taking our ideas and interests into account	2	23

Impacts of the project — development of enterprising attributes

Students were asked to indicate how much they thought they improved on a list of “enterprising attributes” as a result of their E4E activities. Figure 2 shows students’ responses, for the overall sample. Attributes most often rated as those in which students “got better” or “got a lot better” appear at the top, and those less often rated as such appear at the bottom. It is worth noting that for every single attribute, over 50 percent of students in the overall sample felt they had made some improvement as a result of their E4E activities, and in 11 of the 17 attributes, at least a quarter of the students felt that they had “got a lot better”. The most common attributes in which students felt they had improved were: listening to ideas and information from others, explaining their ideas and information to others, and coming up with creative ideas.

When asked which of the above attributes they thought they most improved in, students’ answers varied, suggesting that different students took different things out of the learning experience. The most frequently cited “most improved” attribute was working with others and in teams (12 percent), followed by: being confident talking to adults (9 percent), developing my business knowledge (9 percent), coming up with creative ideas (8 percent), planning and organising a project (8 percent), listening to others’ ideas (7 percent), and seeing mistakes as learning opportunities (6 percent).

Figure 2: Improvements in students' enterprising attributes



The survey invited students to explain what had helped them to improve on whichever attribute they had nominated as their “most improved”. The most common types of responses are discussed below.

Working together

More than half of the students (58 percent) discussed the value of teamwork, exchanging ideas with other people, seeking to understand or relate to the people they were working with to enable the team to work successfully, and/or managing conflicting views and opinions within the team. For example:

Normally I am the leader who knows everything. I'm not much of a gardener, so listening and watching some gardening pros taught me to value others' skills and abilities, and take up a following role. I learnt that following is just as good as leading.

Lots of the time when we are working in a group on the project we have had many discussions and that was when I listened to the others in my group and took in their ideas because usually I'm quite independent and I work by myself.

I sort of took charge of the group because I created the learning tool. So I had to explain to the group how the tool worked and organise most things.

I knew that Enterprise would be mostly working in teams and before I came to Enterprise I hardly ever worked in teams so I knew I had to try.

We were able to resolve our conflicts in our team.

Coping with the unexpected and adapting to change

Another frequent type of comment (25 percent) described specific instances in which students had to adapt to cope with the unexpected or solve problems along the way. This included feedback from their client. For example:

In the project we had to change our whole project a week before it was due to make it better. We had to be positive about change to make it work.

When we first developed our game it would not function properly and it was far too complicated for disabled students. So we had to make it functional and at the same time, not too hard.

[I] talked and negotiated with customers about what they want and what they should have.

Becoming confident presenting their ideas

Fourteen percent of students remarked on the confidence they gained from presenting their ideas to groups of peers or to adults, and receiving feedback from adults other than their teacher.

Speaking about the business in front of the class, teacher, and people from the community. The first time I was quite nervous and apprehensive but by the end I was quite comfortable doing it.

Presenting the project. The adults' feedback seemed fair and square and even though we had lacked in some areas, they didn't bite our heads off but they were able to give it in a way we could understand.

Thinking creatively and self management

Nine percent of students commented on having the opportunity to be creative and use their own ideas in their projects

At the development stage working on different ideas made me realise that I could improve so many ideas to make it the best design work possible and able to complete it to a high standard.

This improved me by thinking of reality and I had to think of something that someone will use... so my creativity improved a lot.

Seven percent suggested that their improved skills had resulted from having to manage their own time and make their own plans, leading to a significant level of self-motivation.

We had to plan a lot for the e-waste day. It involved advertising it at assembly and transporting the e-waste to the proposed site. By planning well in advance we learnt that we could manage all the things we needed to do.

Reflections and connections

Reflecting on selves and future

In the overall sample, 75 percent of students agreed or strongly agreed that the project led them to reflect on their personal strengths and weaknesses (Figure 3). Seventy-three percent said it led them to think about what an enterprising person is like. Sixty-five percent said it made them think about the different opportunities in their region, and more than half said it made them to think about what kind of job they want in the future.

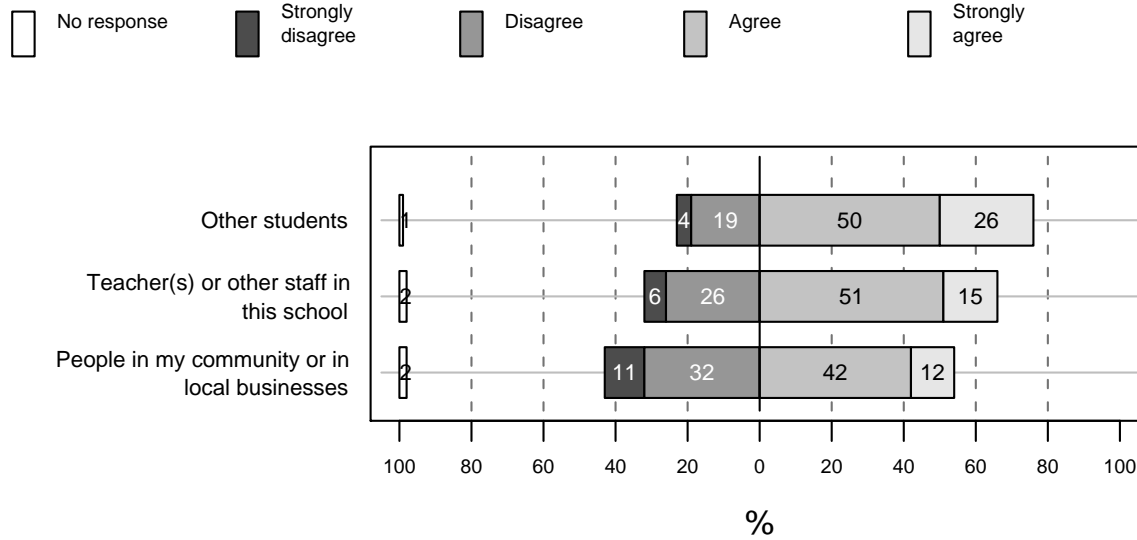
Figure 3: Doing this project made me think about ...



Connectedness to others

In the overall sample, the E4E activities appeared to have had a big impact on students' relationships and connections within and beyond the classroom (Figure 4). Seventy-six percent agreed that doing the project had made them feel more connected to other students, and 67 percent felt more connected with their teacher(s) or other staff in the school. More than half (54 percent) felt more connected to people in community/business.

Figure 4: Doing this project made me feel more connected to ... (n = 409)



Student comments about the impacts of the project

Over a third of the students wrote a comment to describe how the project had impacted on their sense of connectedness, or learning and aspirations for the future. Of the 147 written comments, 80 percent were positive. The comments most frequently related to personal development, and seeing linkages between E4E projects and the “real world” or their potential futures.

This project was a really amazing experience. I learnt so much about running a business, delegating roles and seeing different perspectives. I am much more enthusiastic about school as I am now looking forward to a career in business.

Our teacher gave us information and we were expected to form our own judgement. This helped me improve my self evaluation of information I take in. I also improved my achievement because I was able to evaluate situations in other subjects. This improved achievement in every subject I had.

This project helped me want to promote more healthy eating for our future leaders.

The skills I learnt and became better at will extremely help me to achieve my goals in the future! Thanks very much! :-).

I felt a lot more connected to my peers. I learnt to listen and trust them, to work in a team and that I don't have to do everything by myself and how to take risks. I'm glad I did, because it paid off.

Twelve percent of the written comments were ambivalent or off-topic, and only 8 percent were negative or critical.

I don't want to be an enterprising person.

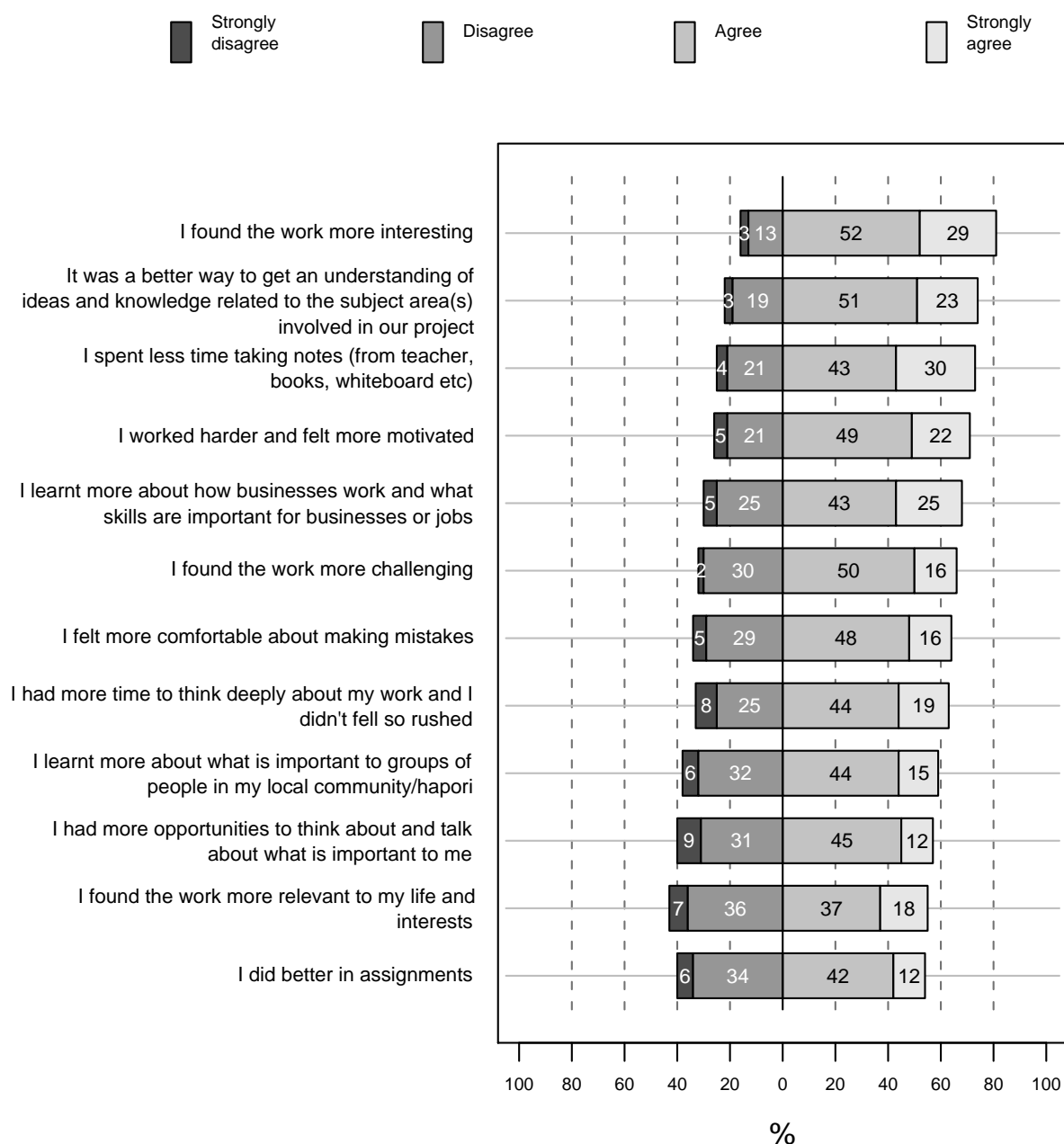
I don't want to do a science project again because it's too much work.

The E4E project compared with other teaching and learning experiences

Interest, relevance and depth of learning

We asked students to comment on the relevance of their learning in the E4E activity compared with most of their usual learning experiences. In the overall sample, 81 percent of students said they found the work more interesting than their work in other classes. Students rated their E4E learning experiences very positively compared with their work in other classes (Figure 5).

Figure 5: Comparing the E4E learning experience with other classes



Getting a better understanding of subject knowledge

As shown in Figure 5, almost 75 percent of students in the overall sample felt that compared to their normal classes, the E4E project/activity had provided a better way to get an understanding of ideas and knowledge related to the subject area(s) involved. Forty-five percent of students wrote a comment to explain why they thought this, providing further insight into the kinds of learning students believed they had achieved through their E4E activities. This ranged from gaining more in-depth understandings of local, national, or global issues, to seeing how the subject-related learning (such as in English, science, or business) could help them in their future lives and careers. Some illustrative

examples are given below.

The stuff we had learnt in class was used in a more practical and real way that required us to learn more and look at things in a more in-depth way.

It had all the maths that we had to learn based around our project so that we had fun and learnt easily at the same time. I loved it!

We learnt about conservation, the ecology of the sand dunes, and the different uses for the area. And we learnt why we need to protect our local beaches from weeds spreading and have plants that stop erosion.

[This project] got me involved and interacting with other students/adults. Now I don't mind so much when I make mistakes.

By studying a range of texts we were able to prove the existence of different issues in society. It also gave us a better understanding of ideas and themes involved in English and things that we study in other subjects.

We got to meet business people. That really motivated me to work harder and make my product more realistic.

I found that [my region] has limited resources to create a business, and the economy isn't so wealthy.

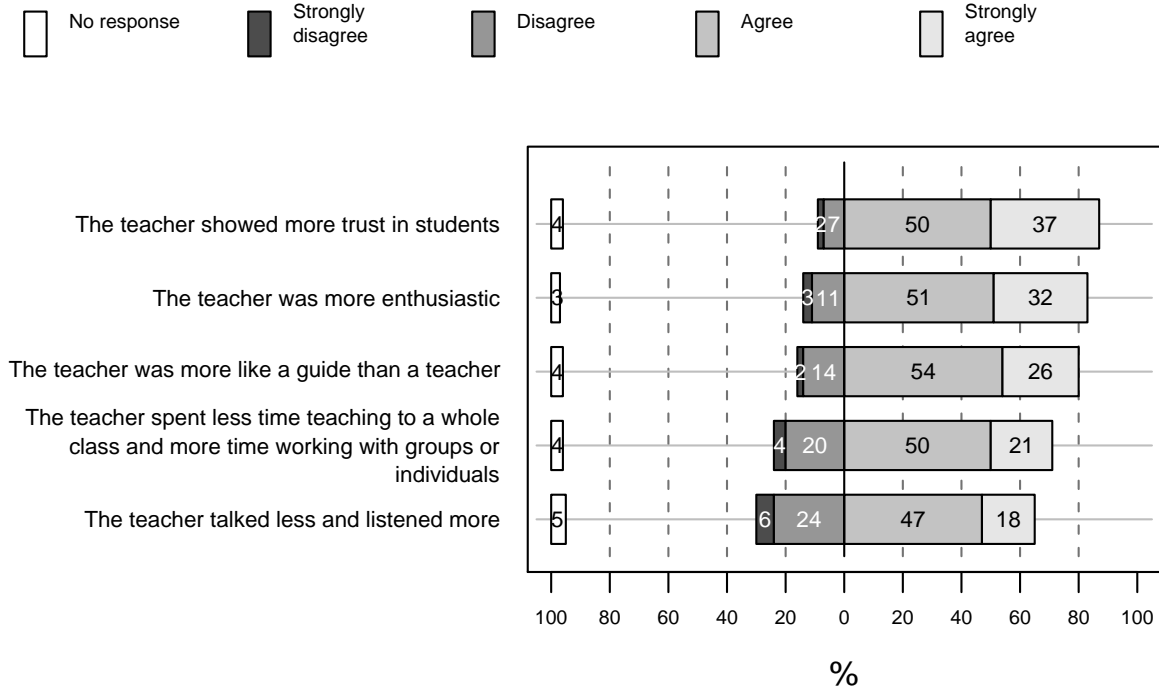
By designing/making this website I understand now when ICT is appropriate to my life and when I can use it in real situations.

Because it taught me how people do non-profitable stuff just for love and sheer kindness.

The teacher's role

Overall, most students indicated that their teacher's role in their E4E project was different from their other classes (Figure 6). Most students agreed that their teacher: showed more trust in students (87 percent), was more enthusiastic (83 percent), and was more like a guide than a teacher (80 percent). Well over half the students said their teacher spent less time teaching the whole class, and talked less and listened more.

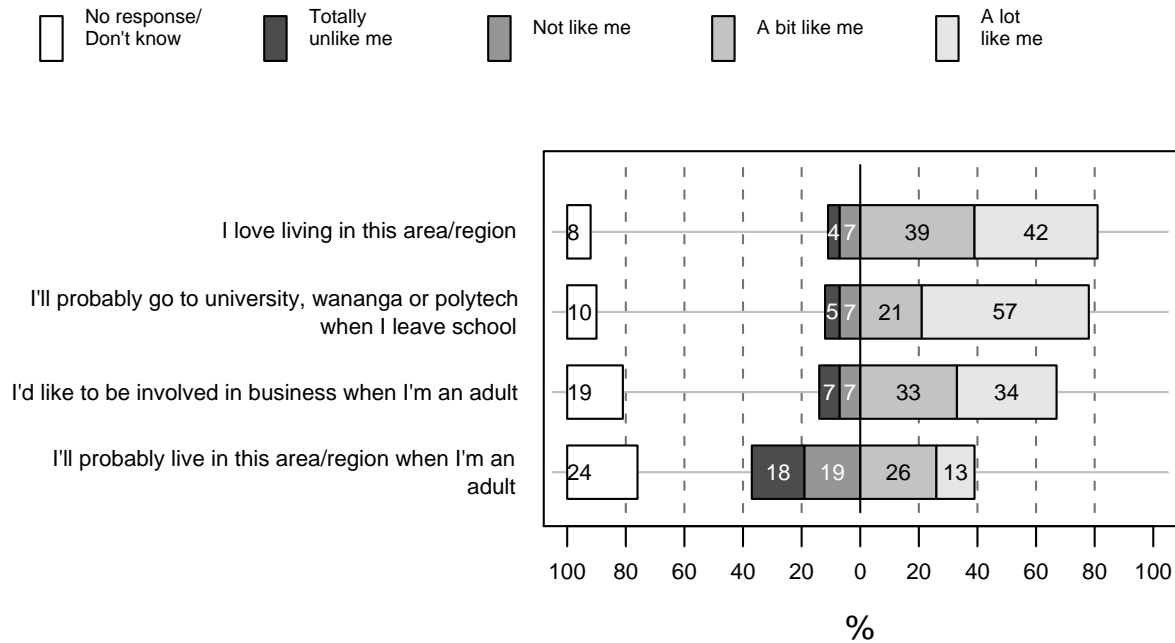
Figure 6: Teacher's role during project (compared to other classes)



Aspirations for the future

Figure 7 shows how strongly students identified with a list of statements about living in their region and possible future study and career pathways. In the overall sample, most students felt positive about living in their region. Nearly 80 percent of students thought they would probably go on to tertiary studies after leaving school. Two thirds indicated interest in being involved in business as an adult. However, (as we might expect) students were less sure whether they would be living in their region when they were adults.

Figure 7: Students' aspirations for the future



Views about possible future ideas for New Zealand Schools

We asked students to agree or disagree with a series of statements about possible future ideas for schools in New Zealand. As Figure 8 shows, students were generally supportive of the idea that students should have learning experiences that will help them to succeed in business and self-employment. Most agreed that students' learning should occur through real-life projects and that they should be able to plan their own learning. Many agreed students should have learning experiences that contribute to the wellbeing of the community and to the environment and sustainability. More than half agreed that schools should have partnerships, and that teachers should do some of their planning with people from businesses or the community.

Conclusion

The data in this mini-report provides a generally positive perspective on the experiences of students who completed surveys about their involvement in E4E activities across the regional clusters initiative during 2008. Further analysis of the data (including comparisons of 2007 and 2008 data) will be provided in the final report of the evaluation of the Regional Clusters initiative.

Figure 8: Views about the future of schooling in New Zealand

