

Student experience evaluation report 2020

NCEA Online

Final



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

Student experience evaluation report 2020

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1. Introduction

In 2020, 58 digital exams were offered – 19 sessions at Level 1, 20 sessions at Level 2 and 19 sessions at Level 3 for the subjects Agricultural and Horticultural Science, Art History, Business Studies, Chinese, Classical Studies, Education for Sustainability, English, French, German, Health, History, Home Economics, Japanese, Latin, Media Studies, Psychology, Samoan, Social Studies, Spanish, Te Reo Māori and Te Reo Rangatira. A list of the digital exam sessions can be found in section 1.1 below.

22,475 students participated¹ in at least one of the digital exams, from 276 schools.

7,995 of the 22,475 (35.57%) students who participated in at least one digital exam in 2020 had participated in at least one of the digital exams in 2019.

1,596 of the 22,475 (7.10%) students who participated in at least one digital exam in 2020 participated in at least one of the digital exams in both 2019 and 2018.

1.1 Information on the survey

The student survey was designed to measure students' self-reported satisfaction and experience of the digital exams, administered by NZQA during November/December 2020. The survey was presented for students to complete online, immediately after submitting their digital exam response. The survey included establishing whether the students regularly use digital technology in their learning at home and at school.

NZQA received 5,479 valid survey responses from 4,968 students attending 262 unique schools. Some students sat more than one digital exam and therefore have answered the survey more than once. NZQA also received 554 invalid survey responses and 802 incomplete survey responses. These were not included in the analysis.

The response rate to the survey was 24.38% (5,479 of 22,475).

24.19% (748 of 3,092) of Māori students who participated in the digital exams responded to the survey, and of the survey responses 13.65% (748 of 5,479) were from Māori respondents.

19.65% (363 of 1,847) of Pacific students who participated in the digital exams responded to the survey, and of the survey responses 6.63% (363 of 5,479) were from Pacific respondents.

The table starting on the next page shows the number of survey responses received by exam session.

¹ Student participation is defined as a student who has a digitally assessed result (Not Achieved, Achieved, Merit, or Excellence).

Digital Exam Session ²	Student Participation	Count of Survey Responses	Percentage %
Level 1 Sessions			
L1-AGRI	137	21	15.33
L1-ARTH	0	0	0
L1-BUSI	649	100	15.41
L1-CHIN	74	15	20.27
L1-CLAS	227	43	18.94
L1-ENGL	7,780	1,235	15.87
L1-FREN	139	32	23.02
L1-GERM	7	2	28.57
L1-HEAL	377	75	19.89
L1-HIST	2,102	409	19.46
L1-HOME	186	33	17.74
L1-JAPA	56	0	0.00
L1-LATI	3	1	33.33
L1-MEDI	718	166	23.12
L1-SAMO	3	1	33.33
L1-SOCI	99	15	15.15
L1-SPAN	121	18	14.88
L1-TREM	186	14	7.53
L1-TRER	42	24	57.14
Level 1 Total	9,651	2,211	22.91
Level 2 Sessions			
L2-AGRI	79	12	15.19
L2-ARTH	55	11	20.00
L2-BUSI	696	89	12.79
L2-CHIN	44	10	22.73
L2-CLAS	569	153	26.89
L2-ENSU	45	6	13.33
L2-ENGL	5,393	1,090	20.21

² Session abbreviations are described in Appendix Four.

Digital Exam Session ²	Student Participation	Count of Survey Responses	Percentage %
L2-FREN	100	25	25.00
L2-GERM	5	0	0.00
L2-HEAL	474	48	10.13
L2-HIST	1,622	280	17.26
L2-HOME	159	18	11.32
L2-JAPA	35	10	28.57
L2-LATI	1	0	0.00
L2-MEDI	851	151	17.74
L2-SAMO	6	0	0.00
L2-SOCI	104	12	11.54
L2-SPAN	49	17	34.69
L2-TREM	101	23	22.77
L2-TRER	27	6	22.22
Level 2 Total	7,969	1,961	24.61
Level 3 Sessions			
L3-AGRI	26	1	3.85
L3-ARTH	177	20	11.30
L3-BUSI	598	131	21.91
L3-CHIN	30	5	16.67
L3-CLAS	543	83	15.29
L3-ENGL	2,584	484	18.73
L3-FREN	63	13	20.63
L3-GERM	13	5	38.46
L3-HEAL	361	57	15.79
L3-HIST	1,179	294	24.94
L3-HOME	103	29	28.16
L3-JAPA	26	4	15.38
L3-MEDI	618	127	20.55
L3-PSYC	67	15	22.39
L3-SAMO	2	0	0.00
L3-SOCI	128	22	17.19

Digital Exam Session ²	Student Participation	Count of Survey Responses	Percentage %
L3-SPAN	67	6	8.96
L3-TREM	78	11	14.10
L3-TRER	18	0	0.00
Level 3 Total	5,102	1,307	25.62
All Sessions			
Total	22,475	5,479	24.38

There are some significant differences in the way students responded to the survey when their responses are analysed by exam session, school decile, gender and ethnicity. The significant response differences between sessions are in device use in digital exams. The significant response differences between ethnicities are in device use on exam day, technology use in learning and participation in 2019 digital exams. The significant response difference between school deciles are in device use on exam day, technology use in learning, practice activities and participation in 2019 digital exams. The significant response differences between gender are in device use on exam day and technology use in learning. These are discussed further in the body of the report.

The survey was made available to students within the NZQA's online exam platform directly after they submitted their exam. The survey consisted of 11 questions, with one open-ended question – see Appendix One for a list of the survey questions. The survey was designed to take approximately five minutes to complete. Not all the respondents answered all the questions in the survey. See Appendix Two for summary tables of responses to the closed-ended questions.

Students were invited to participate in the survey after each digital exam, and some students completed the survey more than once. Every response is included in the analysis as students could have different experiences for each session.

As the survey respondents were self-selected and the response rate is under 30%, care must be taken when applying the findings to all the digital exam student participants.

1.2 Comparison with previous years

As described in the *Introduction*, above, 58 digital exams were offered in 2020 – 19 sessions at Level 1, 20 sessions at Level 2 and 19 sessions at Level 3 for the subjects Agricultural and Horticultural Science, Art History, Business Studies, Chinese, Classical Studies, Education for Sustainability, English, French, German, Health, History, Home Economics, Japanese, Latin, Media Studies, Psychology, Samoan, Social Studies, Spanish, Te Reo Māori and Te Reo Rangatira.

In 2020, 22,475 students participated³ in at least one of the digital exams, from 276 schools and NZQA received 5,479 valid survey responses from 4,968 students attending 262 unique schools.

³ Student participation is defined as a student who has a digitally assessed result (Not Achieved, Achieved, Merit, or Excellence).

In 2019, by comparison, 35 digital exams were offered (13 sessions at Level 1, 12 sessions at Level 2 and 10 sessions at Level 3) for the subjects Agricultural and Horticultural Science, Art History, Business Studies, Classical Studies, Education for Sustainability, English, Health, History, Home Economics, Latin, Media Studies, Social Studies, Te Reo Māori and Te Reo Rangatira.

In 2019 NZQA received 3,888 survey responses from 3,652 students attending 190 unique schools.

In 2018, nine digital exams were offered (Levels 1, 2 and 3 for the subjects English, Classical Studies and Media Studies) and NZQA received 1,468 survey responses from 1,422 students.

In 2017 six digital exams were offered (Levels 1 and 2 for the subjects English, Classical Studies and Media Studies) and NZQA received 1,068 survey responses from 1,047 students.

2. Survey findings

2.1 Overall satisfaction

Respondents were positive about completing a digital exam, with 97.07% (4,482 of 4,617) agreeing or strongly agreeing it was a positive experience. Similarly, in 2019, 96.75% of respondents reported the same sentiment.

There were no significant differences in overall satisfaction between different sessions or between ethnicities. See Appendix Four for a summary of responses, by exam session, to the question: "Overall, I found completing this exam digitally was a positive experience".

Respondents also indicated a strong preference for completing the exam digitally rather than on paper, with 93.26% (4,609 of 4,842) agreeing or strongly agreeing that digital was preferable to paper-based. Similarly, in 2019, 92.88% of respondents reported the same sentiment.

At the end of the survey the respondents were asked if they had any concluding comments on the exam in terms of their likes or dislikes. In response to this final question, respondents mentioned that typing and editing was easier and faster than handwriting, and that they enjoyed the digital experience.

Examples of these comments are below:

"I think doing essays online is much more [convenient] as well as efficient for work as it is faster to type and also you have the ability to remove mistakes "

"I really enjoyed the digital exam as I could quickly write what was in my head at the time and I [didn't] get a sore hand or wrist at all unlike every other one of my exams. Doing my exam digitally is way quicker and I was well and [truly] finished one paper before the 45 minute mark, I didn't even [need] 45 minutes, because it is so so so much quicker to type that write. I wish all my exams were done digitally. Overall, I am really happy with the digital exams and hopefully they do them again next year !!"

"No, I think it ran smoothly considering the amount of traffic all at once"

"It was nice to type, [I] think that made it quicker"

"none it was a good experience"

In response to the final question, where respondents were asked if there was anything they disliked about the exam, some mentioned issues such as exam and navigation difficulty, the editing functions, the exam layout and device and network issues such as being locked out and having to log back in.

Examples of these comments are below:

"I found the editing system difficult. It was easy to navigate the site as a whole but it was hard to change what I had already written."

"Horrible layout and page design made for difficult to navigate questions. Often the answer section was so far above the question that you could not quickly glance at the question and continue with your work but had to stop what you were writing and physically scroll to the question again, [interrupting] thought processes and making it really hard to [consistently] think on a topic or question. The answer section layout made it look like you had written more than the word count displayed, making for false security when answering a question only to read back and realise there wasn't all that much written. Much prefer the prelim exam style on education perfect as was easy to navigate, this style was [unappealing] to the eye and made it difficult to focus on sections or parts of the exam."

"While writing my essay, it was [kind of] annoying because [every time] I went to go back to edit something it would end up deleting something I [didn't] want to delete. Other than that, it was a very positive experience and made it really easy to go back, change and edit my work."

"Spell check was a bit annoying as it would keep checking words I told to ignore"

"The [NZQA] website was very slow and [wouldn't] load at the beginning which meant I started late. I kept coming across 504 errors and 502 errors."

"Bad wifi, Confusing layout"

"For me I think that doing exams on paper is way better. I find doing it digitally has too many problems. At the start many students were facing issues with their network etc. My laptop locked me out which got in the way of my train of thought. I think doing it digitally is way harder. I prefer to do it on paper as it helps me with the flow of my thinking."

2.2 The digital exam experience

Preparation

NZQA made practice activities available to students who were participating in the digital exams. The purpose of the practice activities was to provide students with the opportunity to experience the look and feel of a digital exam, including the login and submission process that students would experience, and the different tools that are part of the digital exams.

60.67% (3,050 of 5,027) agreed or strongly agreed that they found the practice activities useful in their preparation for their digital exam. Similarly, in 2019, 58.57%, of respondents reported they found the practice activities useful.

13.65% (686 of 5,027) of respondents said that they did not know the practice activities existed. This was a large percentage change from 2019, when 24.15% of respondents did not know the practice activities existed.

22.56% (1,134 of 5,027) of respondents said that they knew about the practice activities but did not do them. In 2019, 13.99% of respondents gave that response.

There was a significant difference by decile in terms of responses to do with the practice activities. From low decile schools there was a higher number of respondents than statistically expected⁴ who agreed or strongly agreed they found the practice activities useful in their preparation for their digital exam and a lower number of respondents than statistically expected who did not know about the practice activities. High decile schools had a higher number of respondents than statistically expected who did not know about the practice activities.

On the day

60.52% (3,021 of 4,992) of respondents reported using their own device to complete their digital exam, and 39.48% (1,971 of 4,992) of respondents reported using a school-provided device. These percentages are similar to respondents' device usage in 2019, (59.48% own device and 40.52% school provided).

There was a significant difference in response between ethnicities, genders, decile and sessions in terms of access to technology within the exam. 41.14% (130 of 316) of Pacific students and 61.83% (2,891 of 4,676) of non-Pacific students reported that they used their own device in the digital exam. Similarly, 40.94% (280 of 684) of Māori students and 63.63% (2,741 of 4,308) of non-Māori students reported using their own device in the digital exam. 64.34% (1,819 of 2,827) of female respondents and 55.52% (1,202 of 2,165) of male respondents reported that they used their own device.

There was a significant difference by school decile in terms of access to technology within the exam. High decile schools (deciles 8-10) had a lower number of respondents than statistically expected using school provided devices, while low decile schools (deciles 1-4) had a higher number of respondents than statistically expected using school provided devices.

80.65% (4,069 of 5,045) of respondents reported experiencing no network or device problems when accessing or completing the digital exam. This is lower than in 2019 when 89.52% (3,264 of 3,646) reported having no network or device problems in the digital exam.

Of the respondents who reported experiencing any connection or device problems in the digital exam, 14.13% (713 of 5,045) reported experiencing network problems and 5.21% (263 of 5,045) reported that they experienced device problems.

94.25% (4,766 of 4,927) of the survey respondents found it very easy or easy to find their way through the digital exam. Similarly, in 2019, 94.25% of respondents found the same.

⁴ The statistical expected value is based on the number of responses in the decile group, the number that chose that answer and the total number of responses. This gives us an idea of what the overall distribution of the responses should look like if the decile groups were independent.

$$\left(\frac{\text{Total responses to the question in decile group}}{\text{Total responses with that answer}} \right) / \left(\frac{\text{Total responses to the question}}{\text{Total question responses}} \right)$$

97.27% (4,809 of 4,944) of the respondents found entering their response to the digital exam very easy or easy. This is higher than in 2019, when 93.65% of respondents found the same.

2.3 Digital technology at home and at school

Student survey respondents reported that, to support their learning, digital technology was very often or quite often used in class (92.57%; 4,685 of 5,061), for homework (89.80%; 4,438 of 4,942) and for internal assessments (79.49%; 4,260 of 5,359). Very few respondents reported never using digital technology to support their learning in class (0.47%; 24 of 5,061), for homework (2.02%; 100 of 4,942) and in internal assessment (9.68%; 519 of 5,359).

The 2020 findings show that proportionately more respondents are using digital technology to support their learning in class and for homework the survey respondents in 2019. However, the proportion of respondents using digital technology for internal assessment is lower when compared to 2019 survey responses

There were significant differences between Māori and non-Māori respondents' reported use of technology in their learning. 13.92% (93 of 668) of Māori students indicated that they never or sometimes use technology for homework whereas 9.62% (411 of 4,274) of non-Māori reported that level of usage. 25.82% (188 of 728) of Māori students indicated that they never or sometimes use technology for internal assessment whereas 19.67% (911 of 4,631) of non-Māori reported that level of usage.

31.30% of female respondents reported never or sometimes using technology in class whereas 36.87% (813 of 2205) of males reported the same level of usage. Similarly, in internal assessment, 18.81% (574 of 3051) females indicated that they never or sometimes use technology whereas 22.75% (525 of 2,308) of males reported the same level of usage.

9.53% (57 of 598) of respondents in decile band 1-3, 8.98% (167 of 1,860) of respondents in decile band 4-7 and 5.86% (152 of 2,596) of respondents in decile band 8-10 indicated that they never or sometimes use technology in class.

20.56% (118 of 574) of respondents in decile band 1-3, 12.47% (228 of 1,828) of respondents in decile band 4-7 and 6.23% (158 of 2,535) of respondents in decile band 8-10 indicated that they never or sometimes use technology for homework.

26.01% (168 of 646) of respondents in decile band 1-3, 22.31% (444 of 1,990) of respondents in decile band 4-7 and 17.93% (487 of 2,716) of respondents in decile band 8-10 indicated that they never or sometimes use technology for internal assessment.

2.4 Comparison of 2019 and 2020 student experience

In the 2020 survey, 33.54% (1,656 of 4,938) of respondents indicated they completed a digital exam in 2019. The 2019 survey did not ask students whether they had completed a digital exam the previous year.

As reported in the *Introduction*, above, 35.57% (7,995 of 22,475) of students who participated in at least one digital exam in 2020 had participated in at least one of the digital exams in 2019.

By comparison, 24.25% (3,479 of 14,343) of students who participated in at least one digital exam in 2019 had participated in at least one digital exam in 2018.

1,596 of the 22,475 (7.10%) students who participated in at least one digital exam in 2020 participated in at least one of the digital exams in both 2019 and 2018.

Of those who indicated (in the 2020 student survey) that they completed the 2019 exam, 82.00% (1,345 of 1,640) agreed or strongly agreed that the 2020 experience was better than the 2019 experience.

554 invalid responses were removed from the analysis as they indicated they did not participate in a 2019 exam, yet answered the question comparing the experiences.

2.5 Suggestions for improvement/feedback

At the end of the survey, respondents were asked whether they had any other feedback, including any features or functions that they thought future digital exams should include.

The common suggestions from respondents including having the ability to adjust the text box sizes, adding an exam timer, simpler login process, better instructions and improving editing functions, layout, scrolling in the exam, software, and interface.

Some of the comments with suggestions are included below.

"Really need word count function."

"Improve the autocorrect as it is not very [helpful] at times."

"It would be nice to have a couple [of] different fonts, even if they are automatically changed back when you submit your work, just because I know [I] work better with different fonts."

"it was good, only thing again same as last year is that the software for the exam doesn't take up the whole page."

"It was hard to log in [originally], then I found it slow to type characters sometime. The spell check feature was not very good, not [remembering] what words I had told it to ignore. The window didn't fill the screen even while [full screened]."

"I would like there to be more highlighter colours in the notes section"

"It would be nice to have font selection and inclusion of text search"

"I [believe] the user should have the ability to resize the boxes, or hide the [resource] as it took up a lot of the workspace, furthermore I would have for the boxes to take up more of the white space, as it was being wasted on my screen size."

"Better improvements to design and layout"

"Improved software and interface."

3. Technical support for schools

In 2020, NZQA again worked with N4L to assist schools participating in NCEA Online to become 'digital-ready', to help reduce risks associated with problems in the system and to support NZQA with problem identification and resolution during the exam period. As schools prepared for their digital exam sessions, our work with N4L included encouraging the implementation of VLANs⁵ (virtual local area networks). Support for schools included enabling them to 'whitelist' (i.e. specify), allowable exam URLs for the duration of the 2020 exam period.

Of the 322 schools approached in 2020 to take up the offer of a pre-exam internet 'health check' by N4L, 208 (compared to 136 schools in 2019) took up the offer. 83 of those schools had had a similar assurance check done in 2019. In 2020 the criteria for these assurance checks were more comprehensive and had a focus on security. Based on the results of the checks, N4L suggested improvements each school could choose to make ahead of NCEA Online 2020. The suggestions were designed to help improve the school's network environment and reduce possible risks that could arise during the exam period.

N4L also monitored the digital exams in real time, making calls to support 27 schools during the exam period.

4. Issues experienced and managed

The English Level 2 exam experienced a delayed start when a capacity issue on the NZQA website affected learner log-in to the exam. The actual outage lasted less than 10 minutes and did not affect the 2,800 students who were already logged in before 9.30am. Of the remaining students who entered the digital exam 2,100 logged in by 9.45am, 200 logged in by 10.00am and 100 logged in by 10.30am.

Of the students entered for the English Level 2 digital exam, 67.8% completed it digitally. This compares with 64% for all digital exams, and 72.1% for the English Level 1 digital exam.

A domain name system (DNS) issue was reported during exams at four schools, resulting in some students having to switch to paper. Students trying to access the NZQA site by typing 'nzqa.govt.nz' (without the www prefix) were unable to access the website. N4L tested and resolved this issue at the time by advising schools to type in the full URL i.e. www.nzqa.govt.nz

Student survey data shows the following about other issues experienced:

- Almost 81% of respondents say they had no problems with the digital examination.
- 14.1% of respondents say they encountered school network problems, and another 5.2% say they encountered problems with the device they were using.

⁵ Use of VLANs for exams improves security and assures performance so students have an improved experience. A VLAN keeps users' devices separate internally, meaning that they can only access allowable networks.

5. Concluding remarks

Overall the survey respondents indicated that they found the digital exam a strongly positive experience. A slightly higher proportion of responses indicated that they found it easier to navigate and enter their responses in the digital exam, when compared to 2019 survey responses.

The survey findings show significant differences by ethnicity in terms of the type of device used on the day and students' use of technology in their learning. These findings are consistent with those of the 2019 survey. It is also noteworthy that the 2020 student survey responses indicate that technology is being more commonly used in class and for homework and less commonly in internal assessment than in 2019.

Appendix One: Survey Questions

1. What device did you use to complete this digital exam?

School provided
Your own device

2. How often is digital technology used in your learning?

In class

Very often Quite often Sometimes Never

For homework

Very often Quite often Sometimes Never

For internal assessments

Very often Quite often Sometimes Never

3. Did you experience any network or device problems while accessing or completing this digital exam?

No problems Network problems Problems with my device

4. I found the practice activities useful in my preparation for my digital exam.

Strongly agree Agree Disagree Strongly disagree

I knew about the practice activities, but didn't do them
I didn't know they existed

5. It was easy to find my way around the digital exam.

Strongly agree Agree Disagree Strongly disagree

6. It was easy to enter my responses to the digital exam.

Strongly agree Agree Disagree Strongly disagree

7. I preferred completing the exam digitally rather than on paper.

Strongly agree Agree Disagree Strongly disagree

8. I did a digital exam in 2019.

Yes
No

If you answered No to Q8 please go to Q10.

If you answered Yes to Q8 please answer Q9.

9. My digital exam experience this year was better than last year.

Strongly agree Agree Disagree Strongly disagree

10. Overall, I found doing this exam digitally was a positive experience.

Strongly agree Agree Disagree Strongly disagree

11. Do you have any other feedback such as likes, dislikes, and/or anything you think should be included in the future?

Appendix Two: Summarised Responses to Closed-Ended Questions

Question 1. What device did you use to complete this digital exam?

Type of Device	Count	Percentage (%)
School Provided	1,971	39.48
My own device	3,021	60.52
Total	4,992	

Q2. How often is digital technology used in your learning

	In Class		In Homework		Internal Assessments	
	Count	Percentage (%)	Count	Percentage (%)	Count	Percentage (%)
Very Often	3,330	65.80	3,422	69.24	3,194	59.60
Quite Often	1,355	26.77	1,016	20.56	1,066	19.89
Sometimes	352	6.96	404	8.17	580	10.82
Never	24	0.47	100	2.02	519	9.68
Total	5,061		4,942		5,359	

Question 3. Did you experience any network or device problems while accessing or completing this digital exam?

Device	Count	Percentage (%)
No problems	4,069	80.65
Network problems	713	14.13
Problems with my device	263	5.21
Total	5,045	

Question 4. I found the practice activities useful in my preparation for my digital exam.

	Count	Percentage (%)
Strongly agree	797	15.85
Agree	2,253	44.82
Disagree	111	2.21
Strongly disagree	46	0.92
I knew about the practice activities, but didn't do them	1,134	22.56
I didn't know that practice activities existed	686	13.65
Total	5,027	

Question 5. It was easy to find my way around the digital exam.

	Count	Percentage (%)
Very easy	2,211	39.32
Easy	2,555	54.93
Hard	142	5.34
Very hard	19	0.41
Total	4,927	

Question 6. It was easy to enter my responses to the digital exam.

	Count	Percentage (%)
Very easy	2,597	52.53
Easy	2,212	44.74
Difficult	118	2.39
Very difficult	17	0.34
Total	4,944	

Question 7. I preferred completing the exam digitally rather than on paper.

	Count	Percentage (%)
Strongly Agree	2,849	57.65
Agree	1,760	35.61
Disagree	290	5.87
Strongly Disagree	43	0.87
Total	4,942	

Question 8. I did a digital exam in 2019.

	Count	Percentage (%)
Yes	1,656	33.54
No	3,282	66.46
Total	4,938	

Question 9. My digital exam experience this year was better than last year.

	Count	Percentage (%)
Strongly Agree	402	24.51
Agree	943	57.50
Disagree	267	16.28
Strongly Disagree	28	1.71
Total	1,640	

Question 10. Overall, I found doing this exam digitally was a positive experience.

	Count	Percentage (%)
Strongly Agree	2,002	43.36
Agree	2,480	53.71
Disagree	112	2.43
Strongly Disagree	23	0.50
Total	4,617	

Appendix Three: Survey Responses to Open-Ended Questions

Response rate in open-ended questions

Question		Number of responses	Percentage (%) of response
11	Do you have any other feedback such as likes, dislikes, and/or anything you think should be included in the future?	1,328	24.24

Likes

- Faster to type
- Editing functions
- Less fatigue
- Layout / format Better than 2019

Dislikes

- Layout was confusing
- Difficult to navigate
- Deletion of text
- Completion error
- Small textbox
- Editing functions
- 403 errors
- Network and computer issues
- Scrolling
- Split screen
- Login errors
- No macrons available
- Not able to go full screen
- Wouldn't let you add text into the middles of a paragraph – overwrite other text
- Lockouts
- Eyes hurt
- Noise from typing very loud

Suggestions

- Network support
- Simpler logins
- Improve editing functions
- Better instructions
- Add an exam timer
- No more deletion of text
- Digital resource papers only
- Notes page for student online
- Noise cancelling headphones
- More digital exams offered

Appendix Four: Survey Responses to the Question: ‘Overall, I found completing this exam digitally was a positive experience.’, by exam session.

Subject	Session	Strongly Agree	Agree	Disagree/Strongly Disagree	Total
English	L1-ENGL	440 43.05%	555 54.31%	27 2.64%	1022
	L2-ENGL	313 34.51%	558 61.52%	36 3.97%	907
	L3-ENGL	188 45.85%	209 50.98%	13 3.17%	410
Media Studies	L1-MEDI	66 47.14%	70 50.00%	4 2.86%	140
	L2-MEDI	43 34.40%	77 61.60%	5 4.00%	125
	L3-MEDI	56 49.12%	56 49.12%	2 1.75%	114
Classical Studies	L1-CLAS	16 45.71%	19 54.29%	0 0.00%	35
	L2-CLAS	60 44.44%	73 54.07%	2 1.48%	135
	L3-CLAS	36 50.70%	34 47.89%	1 1.41%	71
Business Studies	L1-BUSI	36 39.56%	53 58.24%	2 2.20%	91
	L2-BUSI	43 62.32%	24 34.78%	2 2.90%	69
	L3-BUSI	70 59.83%	44 39.61%	3 2.56%	117
Health	L1-HEAL	22 47.83%	24 52.17%	0 0.00%	46
	L2-HEAL	18 42.86%	22 52.38%	2 4.76%	42
	L3-HEAL	18 39.13%	27 58.70%	1 2.17%	46
History	L1-HIST	167 47.58%	174 49.57%	10 2.85%	351
	L2-HIST	114 46.53%	125 51.02%	6 2.45%	245

Subject	Session	Strongly Agree	Agree	Disagree/ Strongly Disagree	Total
	L3-HIST	125 49.80%	119 47.41%	7 2.79%	251
Agricultural and Horticultural Science	L1-AGRI	6 35.29%	10 58.82%	1 5.88%	17
	L2-AGRI	1 14.29%	5 71.43%	1 14.29%	7
Home Economics	L1-HOME	13 43.33%	16 53.33%	1 3.33%	30
	L2-HOME	9 56.25%	5 31.25%	2 12.50%	16
	L3-HOME	13 50.00%	13 50.00%	0 0.00%	26
Chinese	L1-CHIN	3 23.08%	10 76.92%	0 0.00%	13
	L2-CHIN	6 85.71%	1 14.29%	0 0.00%	7
	L3-CHIN	3 60.00%	2 40.00%	0 0.00%	5
French	L1-FREN	6 20.69%	22 75.86%	1 3.45%	29
	L2-FREN	8 38.10%	13 61.90%	0 0.00%	21
	L3-FREN	3 30.00%	7 70.00%	0 0.00%	10
German	L1-GERM	1 50.00%	1 50.00%	0 0.00%	2
	L2-GERM	2 40.00%	2 40.00%	1 20.00%	5
Japanese	L1-JAPA	3 50.00%	3 50.00%	0 0.00%	6
	L2-JAPA	2 20.00%	8 80.00%	0 0.00%	10
	L3-JAPA	1 25.00%	3 75.00%	0 0.00%	4
Spanish	L1-SPAN	6 50.00%	6 50.00%	0 0.00%	12
	L2-SPAN	6 40.00%	9 60.00%	0 0.00%	15
	L3-SPAN	5 83.33%	1 16.67%	0 0.00%	6

Subject	Session	Strongly Agree	Agree	Disagree/ Strongly Disagree	Total
Education for Sustainability	L2-EDUC	3	3	0	6
		50.00%	50.00%	0.00%	
Psychology	L3-PSYC	10	1	0	11
		90.91%	9.09%	0.00%	
Te Reo Māori	L1-TREM	11	9	1	21
		52.38%	42.86%	4.76%	
	L2-TREM	10	12	0	22
		45.45%	54.55%	0.00%	
	L3-TREM	7	3	0	10
		70.00%	30.00%	0.00%	
Te Reo Rangatira	L1-TRER	5	7	0	12
		41.67%	58.33%	0.00%	
	L2-TRER	3	1	0	4
		75.00%	25.00%	0.00%	
Latin	L1-LATI	1	0	0	1
		100.00%	0.00%	0.00%	
	L2-LATI	0	0	0	0
		0.00%	0.00%	0.00%	
Social Studies	L1-SOCI	6	8	0	14
		42.86%	57.14%	0.00%	
	L2-SOCI	4	6	0	10
		40.00%	60.00%	0.00%	
	L3-SOCI	4	12	2	18
		22.22%	66.67%	11.11%	
Art History	L2-ARTH	4	7	0	11
		36.36%	63.64%	0.00%	
	L3-ARTH	7	10	2	19
		36.84%	52.63%	10.53%	