

Evaluation of Student Facing Web-Based Services: WickED (Nielsen/NetRatings) **Report to the Ministry of Education**

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Evaluation of Student Facing Web-Based Services WickED

Report

Ministry of Education Research Division Wellington

EXTERNAL RESEARCH CONTRACT WITH:

Nielsen//NetRatings

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Abstract

This document is the final service report developed by Nielsen//NetRatings relating to the WickED website and is complemented by two similar reports relating to an evaluation of the Studyit website and Any Questions website.

It is a culmination of findings delivered through two phases of research activity relating specifically to the WickED website – preliminary analysis of existing research materials and the conduct of quantitative research among the site's current user base. Alongside this evaluation is one conducted by CORE Education, making use of a differing research methodology and analysis techniques to enhance the depth and breadth of the evaluation.

This report delivers an evaluation of the extent to which the WickED service impacts student learning as well as its impact on teachers, parents and other adults. It focuses on the findings from Nielsen//NetRatings' core research activity for the study – a quantitative online survey among actual users of the WickED website, both students and adult users; and incorporates key findings from the preparatory stage of research. Detailed findings from the preparatory stage of research are found in a supporting document.

On completion of the evaluations of the WickED, Studyit and Any Questions websites, an holistic piece of analysis and reporting will be delivered to determine how web-based services (in general) are currently aligning and integrating with children and young people's overall learning experiences and outcomes.

WickED Service Evaluation: Key Conclusions

Young New Zealanders are increasingly embracing the online medium and it has become a source for both formal and informal learning. Both of these elements are facilitated by the WickED service via content like 'Themes' for teachers to integrate into lessons, as well as informal learning formats like the forums, games and quizzes.

Overall, student satisfaction with WickED is fairly high, with just under two thirds of users 'happy' or 'very happy' with the site, though close to one in four are unsure whether or not they are happy. This is reinforced by the finding that just 22% of students feel the site is more useful than other online resources used, while 24% feel it is comparable to other sites and one quarter feel it is less useful. Similarly, while a higher proportion (78%) of adult users of the site are happy or very happy with WickED, 21% are sitting on the fence.

This poses a challenge for WickED site managers as it appears that these perceptions may arise from a lack of understanding of all that is on offer on the site – among both students and teachers. Aside from games, quizzes or crosswords, or the 'Maths Stuff' content (used by around two in five students), there is very little use of other areas of content on WickED. For example, only 12% of students claim to have ever visited the Themes, 10% Student Gallery, 6% Forums and 4% have ever Posted on the Student Gallery. This stems from the lack of frequent and repeat use of WickED among both students and teachers.

A very large proportion of student users were found to be visiting WickED for the first time (60%) and just over one quarter of students visit the site weekly or more often. Regular use is often stimulated by lesson-based usage.

As teachers are the primary source of promotion of the site, the challenge of stimulating greater repeat visitation and exploration of all that is on offer on the site is most likely to be overcome by greater support and promotion of WickED amongst teachers. It appears that the site is not ingrained and integrated into teachers' programmes to the extent that it could be and this may call for greater structure to some of the WickED content to provide teachers with a step by step approach to using the site. This may help in drawing them (and their students) back on the regular basis in order to complete particular programmes.

It is also notable that the area of content deemed the most appropriate for teacher-led use of WickED, ie the Themes, has achieved little claimed use by students (12%) and none of the teachers spontaneously mentioned this area of content as one which was specifically performing well. Other content areas which may place burden on resources and which are also not being used by a large number of students are the forums and ability for students to submit content. Again, greater promotion and encouragement for teachers / schools is required to stimulate better use of these tools among students as this type of 'participatory' usage is a major benefit of the online medium and one which can facilitate learning through building students' communication skills and their confidence.

Quantifying WickED's Success

As mentioned above, the majority of WickED users are happy with the service. Testament to the site's remit of promoting independent learning, students are the most satisfied with the way the site allows them to work by themselves and interestingly, students who visit WickED "to help me learn", those who used WickED

within a class session or "to get ideas for school questions or projects" are more likely to be happy or very happy with the site than those visiting for fun, to get answers for school questions or had been told to use the site by a teacher/other adult. This is a positive sign that both independent and teacher-led usage can both result in satisfaction among young users.

The site has a broad reach and reveals particular equality among students attending lower decile schools. While a slightly lower proportion of the user audience fits this profile, the gap is far narrower than among Studyit users and lower decile students are equally as satisfied with WickED as their mid and higher decile counterparts. Continued promotion of the site among teachers at lower decile schools is important to help close this gap even further and ensure all students are aware of, and make use of, the site.

WickED is also reaching students who mainly speak Maori at home and 5% of the user base does so. These students likely benefit from the Maori resources which can instill confidence for this demographic group.

While the site is predominantly reaching students who achieve good school results, those faring less well at school are also gaining value from the site – a greater proportion of this group are more positive toward WickED as a fun resource, helping them with their school work, helping them work with other students and most importantly, they are much more positive toward WickED's facilitation of working independently. Greater promotion of the site targeted at these 'lower achieving' students is required to ensure a greater number of them can begin to reap the benefits of WickED.

It is also interesting to note that WickED users are largely in years 6, 7 and 8 and the target audience (7-12 year olds) is underrepresented. The survey has found that those aged 13 and above are more likely to visit the site for school work and to communicate with other students, and together with 11 and 12 year olds they are likely to use WickED in a lesson – indicating that teachers of younger students could be making more use of the site within their lessons.

It is also important to highlight that more than one quarter of students (27%) claim to have only ever used the WickED site, when asked about the range of online resources they have used for their schoolwork. This indicates a need to further promote the exploration of online tools to support student learning. Adults still rate offline resources like teachers, libraries and books above any online tools, though search engines and subject sites are well regarded to help young people learn.

To position WickED as an exciting learning resource, supporting teachers to incorporate the online medium into their lessons, greater promotion and guidance in using the site is required. As mentioned, there is also an opportunity to provide more direction and structure on the site for teachers, to encourage ongoing and regular use in the classroom. Two in five teachers noted a "lack of time for use of WickED at school" as one of the barriers to students using the site.

Expanded Role

WickED's original intent, to support learning in After School Support Centres, appears to have been expanded and now only 7% of users have ever accessed the site from such a centre. The majority of use is at school, during a class, though home-based use is growing and close to half of students have ever accessed WickED at home.

This shift reinforces the need to cater to teachers and lesson-based usage as well as facilitate content for independent use in the home or other location like the school or public library. The large number of first time users require 'hand holding' through the site and potentially the inclusion of a welcome message and introduction to help them understand and explore the site's content. As discussed, very few of the site's content areas currently achieve good levels of usage which translates to an inefficient use of resources dedicated to developing, maintaining and hosting such content. Putting in place strategies and tactics to build awareness of the site, help teachers better incorporate the site into their lessons on a regular basis and help students explore and make use of more areas of the site independently will improve the site's value in three ways:

- Improve the reach of the site to new audiences as well as stimulating greater use among the existing user base
- Expose students to a greater variety of content areas, tools and resources to facilitate a broader scope of learning, eg, social skills and confidence via the forums and sense of worth and achievement via submitting content and seeing it published
- Better support teachers with valuable online resources that can be used during lessons on a regular basis with minimal effort

WickED's reach and contribution to student learning, outside formal performance measures, should continue to be tracked over time to ensure that the impact of service refinements and marketing efforts are accurately captured and the continued improvement of the site documented.

Methods Phase 2 – Quantitative Online Survey

Quantitative research using an online survey was administered via two launch methods - a site-intercept invitation among a sample of visitors to the WickED website and an 'opt-in' link from the home page, as seen in the image below:



Further details include:

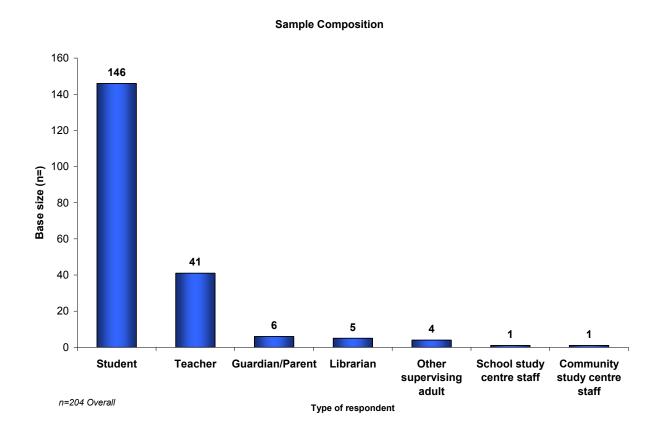
- Data was collected between 9th May and 21st August, 2006
- 204 surveys were completed in total, predominantly derived from the opt-in link on the home page¹
- Average completion time was 10.2 minutes for students and 5.2 minutes for adults
- A 6.2% completion rate was achieved for the survey among those participants of the correct profile to complete the survey, ie, NZ residents and students aged below 15 who had parental / adult permission to participate in the survey²

^{1 139} of 146 student responses, and 40 of the 58 adult responses came from the opt-in button

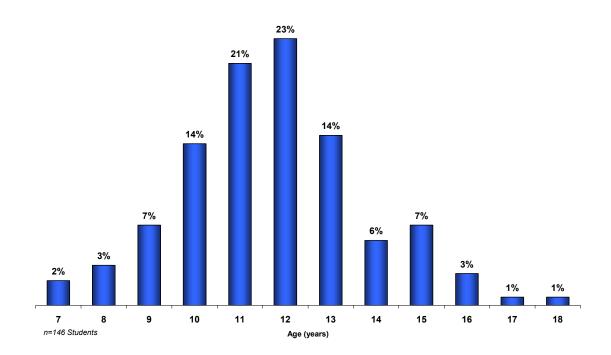
The response rate among all participants (even those who actually screened out of the survey because they were non residents or had not obtained permission to complete the survey) was 13.7%

Sample Composition

In total, 204 people responded to the survey, of which 146 were students (71.6% of the total sample), 41 were teachers (20.1% of the total sample) and parents, guardians or other supervising adults make up 4.9% of the sample (only 10 people).

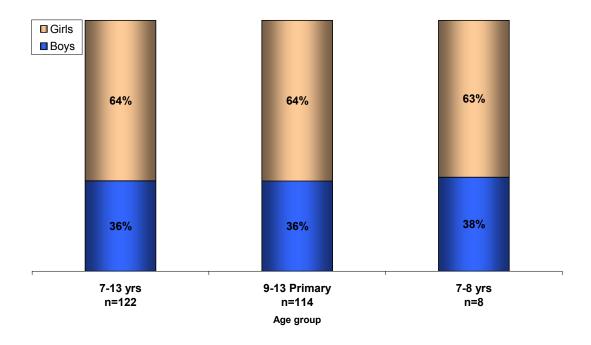


The chart overleaf reveals the age breakdown of students using the WickED website. More than half (55.4%) of students are in the website's target age of between 7 and 12 years though there is a reasonable proportion older than the targeted audience.



There are more female students in the sample than males; 97 of the 146 student respondents were females (66.4%) versus 49 males (33.6%). While this does provide evidence of more use of the site among females than males, it should also be noted that females are typically more likely to respond to surveys so this skew is likely over emphasised.

Across all ages of student, a similar gender breakdown is evident, as seen in the chart below:



Further information relating to the profile of student website visitors can be found within the Section, 'Service Reach'.

Findings and Observations

The findings and observations derived from this research and explored in this report cover four specific areas:

- 1. Quality of service provision
- 2. Immediate learning for young people
- 3. Alignment and transfer of learning
- 4. Learning for teachers and other adults

Each section of the findings and observations explores one of the four key areas outlined above and is intended to provide insight into how the usage patterns, behaviours and perceptions of site visitors interacts with the key goals for the WickED service and, more generally, those of the Ministry of Education.

Where possible, this report has incorporated findings, knowledge and general commentary based on Nielsen//NetRatings' expertise in the field of Internet and technology. Particularly, learning's from market reports and non-confidential research concerning youth have been incorporated in some instances to supplement the primary research findings of the WickED evaluation.

Quality of Service Provision

- In this section, we explore students' perception and satisfaction with the WickED site, including that associated with specific areas and elements of the service.
- We also assess the reach of the service in terms of demographic profiles, student confidence and Internet accessibility
- We reiterate the findings relating to the safety of the WickED website for young users
- And provide an understanding of the means by which student users find out about WickED

Perceptions of Service Performance

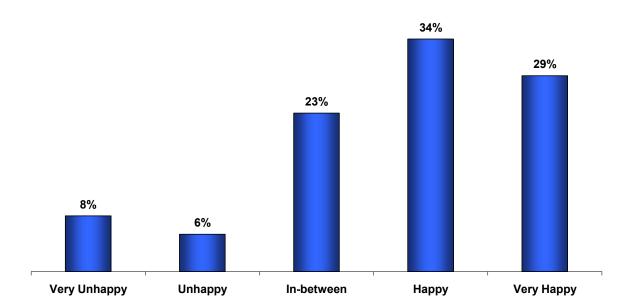
Close to two in three student users of WickED (63%) are 'happy' or 'very happy' with the site and this is impacted by:

- Frequency of visitation: 79% of those who visit weekly or more often are happy or very happy vs 36% of less frequent users and 55% of first time users
- Students' motivation for visiting the site: those who visit "to help me learn", "used WickED within a class session" or "to get ideas for school questions or projects" are more likely to be happy or very happy with the site than those visiting for fun, to get answers for school questions, those who were just curious

or had been told to use the site by a teacher/other adult. This is a positive sign that both independent and teacher-led usage can both result in satisfaction among young users.

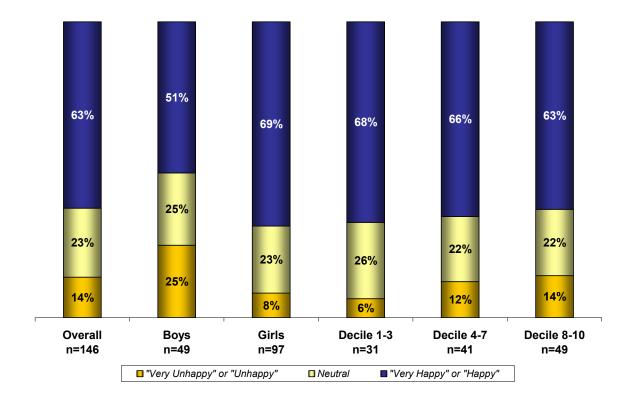
Motivation for visiting:	To learn	Used during a lesson	Ideas for school work	For fun	Was curious	Answers to questions	Was told to use the site
Proportion rating site 'Very happy' or 'Happy'	74%	74%	70%	64%	62%	58%	53%

Overall satisfaction level of WickED users



Interestingly, characteristics such as site tenure, Internet sophistication, home connection speed and primary vs secondary students had little to no impact on overall satisfaction with the site.

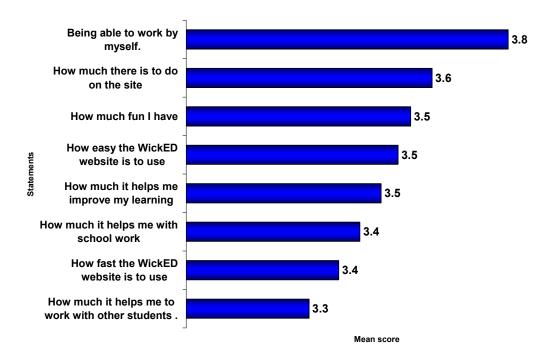
Depicted in the chart below, girls are happier with the WickED website than boys (69.1% happy or very happy compared with 51.1% of boys). There is little difference between the three decile groups when comparing happiness ratings, though a higher proportion of students in higher decile schools are very unhappy with the website compared to students in the lower and mid decile schools.



As seen in the chart on the previous page, more than one in ten users (13.7%) are unhappy to some degree with the site and close to a quarter are 'sitting on the fence'. The 37% who are less than happy overall are only slightly more likely to be outside the target age ie, over 12 (39% of those in year 7 or above vs 32% in year 6 or below) but first time users are far more likely to be less than satisfied (46% vs 24% of repeat visitors). This can be improved with greater 'hand holding' and guidance through the website with dedicated links and content for 'new users' and welcome messages to introduce students to what is on offer on the site and how they should start using the site.

Evaluating specific elements and features of the site, students are the most satisfied with the ability to work by themselves, achieving an average score of 3.76 out of 5. The variety of content / activities, degree of 'fun' and ease of use also rate fairly well though all areas reveal room for improvement, to lift these scores closer to the maximum of 5.

As noted in the Interim Report, comments from the August 2005 student workshops indicated that navigation was a possible area of weakness for the site and the survey findings reinforce this to some degree – over half of users are satisfied with the site's ease of use, but 30% are neither happy nor unhappy and 19% are less than happy. Continued monitoring of site usage patterns via the behavioural statistics as well as ongoing usability assessment can assist in refining navigation and overall usability practice for the site.



Please note, a detailed chart of this question can be found in the Appendices.

Consistent with the findings relating to overall satisfaction with WickED, girls are happier than boys in all aspects of the website, particularly "ease of use", "fun" and "how much there is to do on the site". Students from low and mid decile schools also rate all aspects higher than those at high decile schools, notably the way the site improves their learning and helps with school work. Detailed average scores can be found in the Appendices.

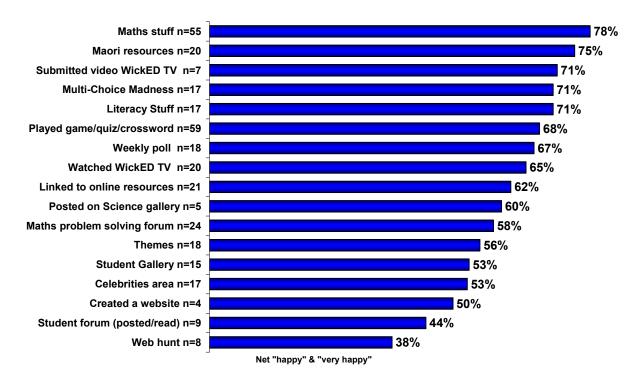
Not surprisingly, the more frequently students visit the site, the more likely they are to be satisfied across all aspects measured. The table below reveals average scores out of a maximum of 5 – split between first time visitors and repeat visitors.

			Used two or
	All students N=146	First time users N=88	more times N=58
Being able to work by myself.	3.76	3.57	4.05
How much there is to do on the site	3.58	3.36	3.91
How much fun I have	3.53	3.32	3.84
How easy the WickED website is to use	3.5	3.26	3.86
How much it helps me improve my learning	3.46	3.22	3.83
How much it helps me with school work	3.41	3.24	3.67
How fast the WickED website is to use	3.36	3.16	3.66
How much it helps me to work with other students	3.29	3.13	3.55

Satisfaction with specific content areas of the WickED site

Many content areas achieve good levels of satisfaction though care should be taken when looking at these results as many have very small base sizes. Any element with a base below 30 should be treated as indicative only and those with less than 10 responses should be treated with caution.

'Maths Stuff' achieves the highest rating (now found within 'Homework Help – Maths Help'), and fares particularly well among repeat users (who are also the most likely to make use of this section of the site). Those at lower or mid decile schools are more likely to be 'very happy' with this content though when including 'happy, higher decile students are just as likely to be positive overall toward 'Maths Stuff'. Similarly, girls are far more likely to be 'very happy' but boys are just as likely to be positive overall (80% of boys are very happy or happy as are 77% of girls). A detailed chart can be found in the Appendices alongside the average score achieved by each section, out of a maximum of 5.



There are some differences evident in student's satisfaction with content areas like Maths and interactive 'fun' depending on their motivation for using the site. Those who visit WickED to learn exhibit greater satisfaction with both of these popular areas of the site while those who have simply been directed to use the site are less satisfied. Classroom-based use elicits similar levels of satisfaction as independent use for both fun and to learn.

Motivation for use:	For fun	To learn	Classroom use	Was told to use
Maths Stuff	69% happy	88%	81%	67%
Game / quiz / crossword	74% happy	84%	74%	61%

Students' suggestions to improve WickED

Within the online survey, students were asked to suggest improvements to the WickED site, ie, "How could WickED be made better?" Overwhelmingly, students are after fun and interactive learning, taking full opportunity of the functionality of the online medium.

'More quizzes' is the most cited means of improving WickED among both boys (53.1%) and girls (64.9%) while competitions and activities with other students are also popular. This is consistent with some of the comments from attendees of the WickED Workshop, conducted in Auckland in August 2005, as quoted in the initial interim report by Nielsen/NetRatings:

"I think there should be like a game that the player is some one the walks around in levels and to get to do the next level they have to answer a question.

"I think you should have some dress up games where you can choose different people to dress up with different clothes and some animal games. Then it would be the perfect site."

"More games."

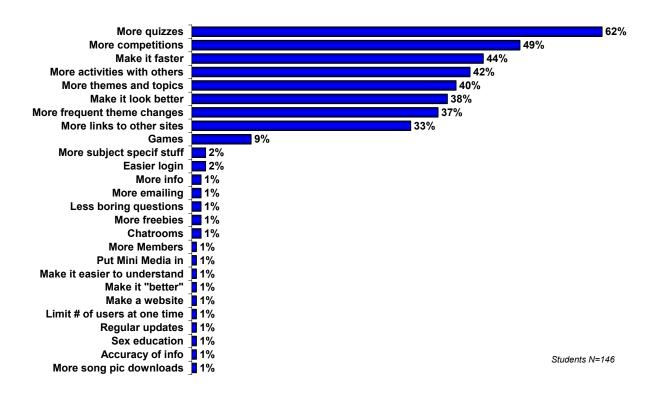
"The WickED site could make more games."

Boys are more likely than girls to request functional improvements such as "better looks" or "make it faster" while girls were more likely to suggest the interactive content enhancements ("more quizzes", "competitions", "games" and "more activities to do with other students").

Differences are also evident across age groups:

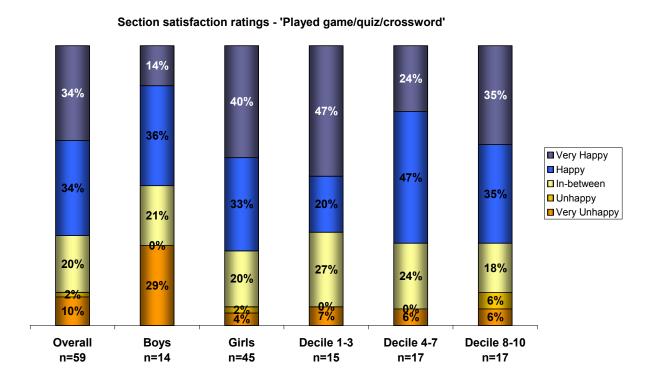
- 11 and 12 year olds are less interested in quizzes (51%) than 7-10 year olds (68%) and those over 13 years (69%)
- They are also far less interested in competitions (32%) vs 58% of 7-10s and 67% of 13+
- Those over 13 are the most likely to suggest improvements to the appearance of the site (51% vs 32% of younger users; they also request more interesting themes and topics, changing themes and more links to other sites; and more activities with other students consistent with the shift toward online socialising that has huge uptake among teenagers

The chart overleaf summarises the suggested improvements.



These suggestions are consistent with current levels of satisfaction with the fun and interactive content on the site, ie, playing games, doing a quiz or a crossword. Two in five students have made use of these elements of WickED and over two thirds of these users are happy with it, though one in five are indifferent and just over one in ten are unhappy. This reveals more dissatisfaction than with 'Maths Stuff'.

As seen in the chart below, indications are that boys are far less satisfied than girls, which is interesting, given that girls were more likely to suggest improvements to this type of content on the site.



Operational Characteristics

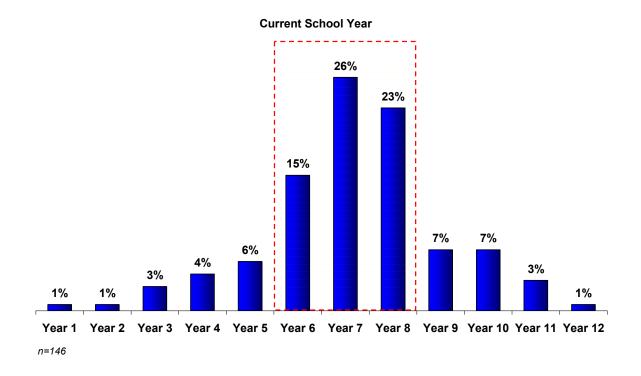
Service Reach

The following section provides an indication of the profile of students visiting WickED. As the survey responses were primarily gathered via an opt-in method of participation, the research has not provided a true, random capture of visitor profiles so service reach must be regarded as indicative. It is likely skewed toward students who enjoy participating in surveys and who want to provide their opinion of the site.

Demographic Profile

Consistent with the age breakdowns found in the Sample Composition section of the report, WickED users are predominantly in Years 6 to 8 (63.7%), with Year 7 students making up the largest group at 26%. Those in Year 8 are likely above the key target age for the site (ie 12 years of age).

There is far less use below Year 6 which may be a ramification of teacher-led use and introduction in the classroom (found to be higher among 11 and 12 year olds) as overall, those at the younger end of the target age i.e. 7 - 9 year olds, are underrepresented.



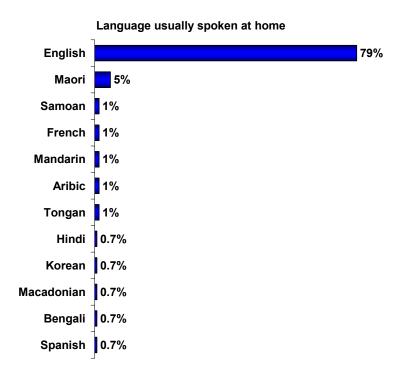
Interestingly, there is a large proportion of boys aged 12 using the site (37% of all boys vs 16% of girls the same age) but more girls aged 11 and under using the site (51% vs 38% of boys). This is an interesting finding and examined in more detail in the section, Patterns of Usage.

Main Language Spoken

79.5% of the student respondents stated English as the language spoken most often at home, slightly below that of Studyit (85.6%). A total 12 different languages were specified overall with Maori mainly spoken at home by 4.8% of student users, higher than the 0.5% of Studyit users. The WickED site includes Maori resources which should assist in making Maori speakers feel welcome and comfortable using the site.

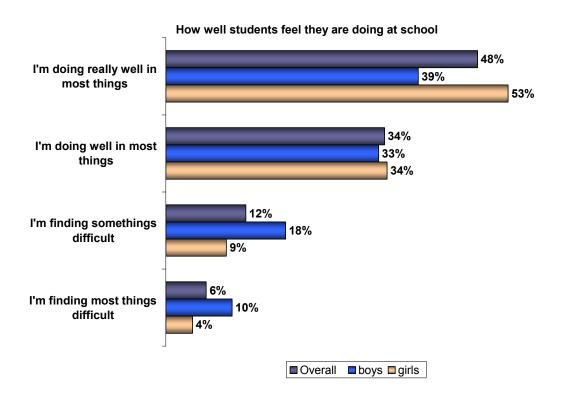


Language does not appear to have an impact on students' satisfaction with the site - 53% of those mainly speaking another language at home are happy overall with the site's <u>ease of use</u> vs. 51% of those in English speaking households; and they are more satisfied with the way WickED <u>helps them with their school work</u> – 60% of those in a non English speaking home vs. 47% in an English speaking home.



Level of Education and Achievements

WickED is predominantly reaching students who are confident with their school results and as seen in the chart below, girls are more likely to feel they doing well at school than boys, who are far more likely to admit having some difficulties at school. There is little difference across the various age groups.



Indicatively³, more confident students are more likely to be repeat users of WickED (43% vs 18% of less confident students), more satisfied with the site overall (65% happy overall vs 55%) but not more satisfied with WickED's facilitation of fun, independent learning and as a helpful resource for school work. In fact, less confident students are more likely to feel positive toward WickED in many of these attributes. Results can be seen in the table below:

³ Based on a small sample of less confident students, n=27

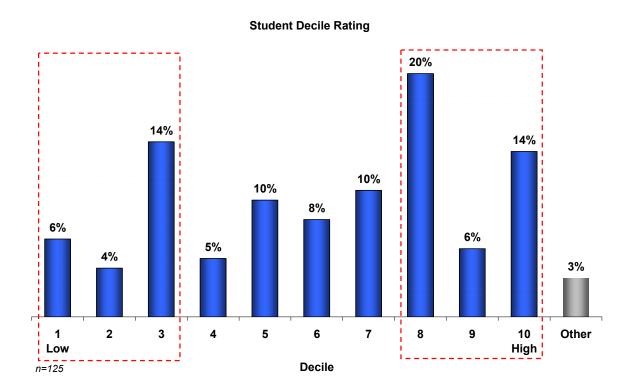
Happy or very happy with WickED in terms of:	Students who feel they are doing really well / well in most things at school N=119	Students who are finding some / most things difficult at school N=27
How much fun I have	49 %	59%
Helps me with school work	49%	55%
Ease of use	53%	44%
Variety of things to do	56%	52%
Helps improve my learning	50%	48%
Helps me work with other students	42%	48%
Able to work by myself	61%	<u>78%</u>

This is a positive finding as it indicates that just as much value, if not more, is being obtained by less academic students in the vital areas of learning such as managing self, thinking and relating to others. Further detail on these core competencies can be found further through the report.

Representation Across School Decile

The below chart plots the school decile rating of students taking part in the study. Close to two in five (39.2%) students are in the top three decile groups while one in four (24.9%) attend lower decile schools and one in three (32.8%) attend mid decile schools. Although there is a slight under representation of lower decile students, access is far more evenly distributed than on Studyit (just 7% of students using Studyit attend lower decile schools).

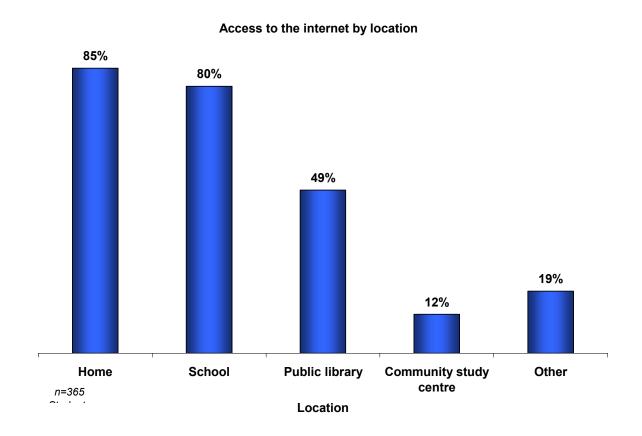
This is testament to the recommendation from teachers at lower decile schools (just under half of lower decile students found out about WickED via a teacher, though it is lower than found for higher decile schools) as well as only a small divide in home Internet access, as discussed overleaf.



Accessibility

A high proportion (84.9%) of all student users of WickED have access to the Internet at home and at school (79.5%). Seven to twelve year olds have slightly higher access to the Internet at home than do teenagers (87% vs 80%) and WickED users have better access to the online medium at home than does the general New Zealand population of roughly the same age: 78% of 10-12 year olds in NZ have a home connection vs 87% of 7-12 year olds who use WickED. Access among these youngsters is also significantly higher than for the general NZ population at 68%.⁴

⁴ Nielsen//NetRatings NetWatch Data, Q3 2006



As seen in the chart above, a reasonable proportion also have access 'somewhere else' and students mentioned friends' / relatives homes or at mum or dad's place of work.

	Students aged 7-12 years N=101
Home	87.1 %
School	75.3%
Public library	44.6%
Community study centre	6.9%
Somewhere else	21.8%

Again in contrast to the Studyit user audience, students attending lower decile schools are on par with their mid decile counterparts in terms of Internet access and only slightly below high decile students in their access to the Internet at home. However, while most locations of access are similar across the three groups, lower decile students are less likely to cite access in a community study centre which is an interesting finding given that WickED was originally developed for use in study and after school centres.

As explored in the next section, Patterns of Usage, there is little use of WickED taking place in study centres (less than 10% of student users overall) and 6.5% of lower decile students actually state they have accessed WickED from a study centre, which contradicts the 0% who felt they did not have Internet access from this location. Regardless, the proportion is very low considering the original remit for WickED.

	Low decile student 1-3 N=31	Mid decile students 4-7 N=41	High decile students 8-10 N=49
Home	80.6%	82.9%	87.8%
School	77.4%	75.6%	77.4%
Public library	54.8%	41.5%	53.1%
Community study centre	0%	12.2%	14.3%
Somewhere else	16.1%	17.1%	18.4%

15.1% of students do not have access to the Internet at home. Students from lower decile schools have less access to the Internet at home (19%) than students attending high decile schools (12.2%) and mid decile schools (17.1%).

Those who feel they are faring worse with their school work are also more likely to have less access to the Internet – 22% don't have home access vs 13% of students who feel they are doing well / really well; 30% don't have Internet access at school vs 18%; and only slightly more have Internet access at a study centre – 15% vs 11%.

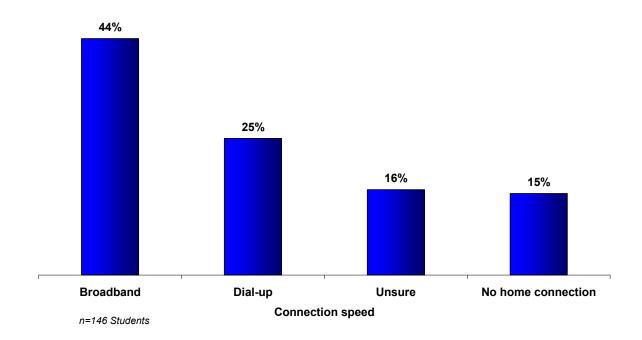
Interestingly, there is very little difference between Internet access for first time users of WickED compared with repeat users – though first timers are slightly more likely to have Internet access at a study centre (15% vs 7% of repeat users) but less access via a public library (46% vs 53%).

Home Access Speed

Among all student users of WickED (inclusive of those without home Internet access) 43.8% have Broadband Internet access at home, translating to 52% among those who do have a home connection. This is well below the 65.7% of Studyit users with fast access but consistent with Nielsen//NetRatings' findings that households with teenage children are more likely to have upgraded to broadband based on the children's influence.

Among 7 to 10 year olds with a home connection, 39% have broadband and this jumps to 58% among 11 and 12 year olds – significantly higher than the 38% among the general NZ population of 10-12 year olds, based on Nielsen//NetRatings' NetWatch data Q3 2006.

So while broadband access is higher than average among the current WickED user base, there remain 30% of home users who connect to the site via dial up (25.3% of all student users) and this remains a consideration for future site developments and content delivery. On some sites, a broadband and narrowband option is provided to users such that rich media is only presented to those on a fast connection. Regardless, future developments should be tested thoroughly in both a dial up and broadband environment.



While lower decile students are almost as likely to enjoy Internet access at home, they are significantly less likely to have broadband (52.4% of those with a home connection) compared with their higher decile counterparts (70.8%). This is likely due to the costs associated with this technology.

However, indications are that those with broadband are not more satisfied with WickED overall, with very similar levels of satisfaction exhibited among home broadband and dial up users, nor are they more satisfied with the speed of the site -51% of home dial up users are 'happy' or 'very happy' with "How fast the WickED website is to use" vs 45% of those on broadband at home. There are, however, slightly more dial up users who are less than satisfied with the speed -27% vs 20% of broadband users.

Safety measures

As noted in the interim report, Nielsen//NetRatings' eGeneration study of 2005 confirmed that young New Zealanders have integrated the Internet into mainstream activities which strengthen their connections to their real world communities and enrich their social interactions with peers. Using web-based tools as a way to engage with students allows educators to communicate with students in an environment that they have embraced as their own and encourage students to develop their educational pursuits outside of the classroom.

The reality of the Internet, however, is that students can be exposed to offensive content and risky situations, either as a result of an innocent search which leads students to questionable sites or by their own volition. Sites catering to children and young people can support safe Internet practices both within their own designs as well as by providing information and tools to encourage children and young people to wisely navigate the internet while guarding against privacy invasions and authenticating online information.

WickED was found to provide a safe environment for children, and for the most part does not demonstrate practices which would put children at risk. There were no remarks relating to an unsafe environment among student users or adult users of WickED, within the survey responses.

In terms of communicating to children about safety issues, the website demonstrates very good procedures, such as the liberal inclusion of links to Internet safety tips and guidelines – suggested for inclusion on the home page to enhance their overall visibility and encourage readership.

One area of the site that may warrant additional vigilance is the online forum – though as will be seen in the next section, less that one in ten student users have made use of the forums and the 'communication and interaction' components of the site are more attractive to teenagers, than to the younger target audience.

Regardless, online communication via instant messenger, chat and forums can be a high risk activity for children as 'stranger danger' prevails and continued moderation and editing of the forum contents is required, as currently performed by the TK Angels. If there is to be an aim of increasing use of the forums, particularly among the target user audience (7-12 year olds) the resources put toward editing and moderation may be stretched and these issues need high consideration before any promotional activity occurs. This is integral to the safety of children using WickED going forward.



Further detail relating to best practice in supporting child safety online for websites geared to children and young people can be found in the Interim Report which complements this document.

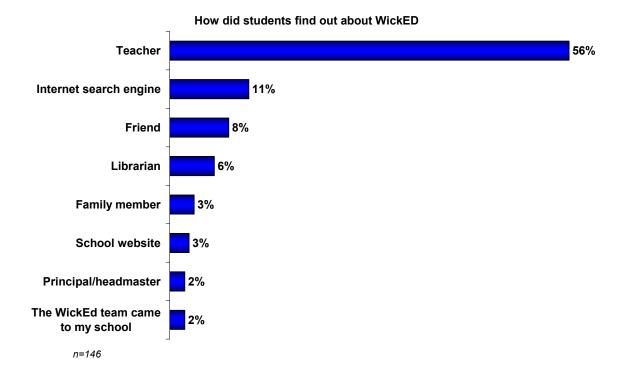
Sources of Awareness of the WickED Service

Teachers are a great source of promotion of the WickED site and more than half of all students (55.5%) had found out about the site through a teacher – more so among 11 and 12 year olds of which 60% had found out via a teacher, consistent with their greater use of WickED in a class lesson.

Search and word of mouth among students are also important forms of site awareness; search being more prevalent among the 13+ group and hearing about the site from a friend a more common source of awareness for 7 to 10 year olds.

In a similar pattern to Studyit, though to a lesser extent, teachers at high decile schools appear to be more avid promoters of WickED - 67.3% of students in high decile schools (8-10) first found out about the site through a teacher compared to 45.2% of students from low decile schools and 48.8% for mid decile students. This is a significant difference and highlights the need to improve awareness levels and encouraged use of the site in lower decile schools.

Boys are significantly more likely to find out about the site by a teacher compared to girls, 65.3% compared to 50.5%; while girls are slightly more likely to find out about the site by using a search engine (12.4% compared to 8.2%).



Immediate Learning for Young People

- In this section, we explore the <u>kinds</u> of learning that are happening through the use of the WickED site breaking down student learning into the five core areas: Thinking, Making Meaning, Relating to others, Managing Self and Participating and Contributing.
- We also ascertain students' motivations for using the site and their patterns of usage of the WickED service.

Patterns of usage

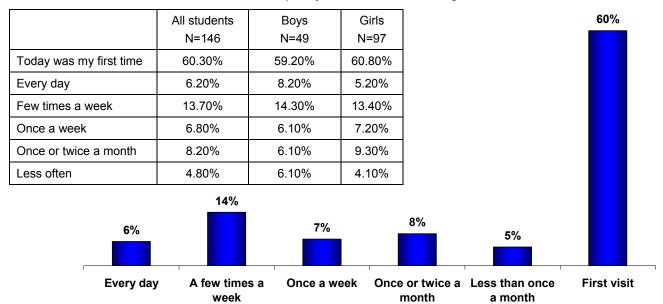
Frequency of visitation

A very high proportion of WickED users are visiting for the first time so the challenge is to convert a greater proportion of one-off visitors to begin using the site on an ongoing basis. At present, just over one quarter of students (26.7%) visit WickED once a week or more often. Those who have visited the site more than once are more likely to be:

- → More confident in their school work (43% vs 18% of those who are having difficulty at school)
- → Those who use WickED during class lessons (41% vs 13%)
- → Subsequently, those who have used WickED in the classroom (66% vs 40%)

There is little difference across age and gender.

Frequency of student WickED usage

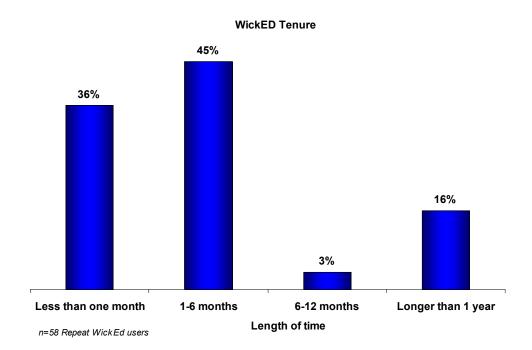


Regular users of the site (ie not those visiting for the first time) visited the site on average eleven times a month and students from low decile schools visit more frequently than high decile students – 12.9 times a month, compared to 9.3 times for mid decile students and 8.9 times per month for high decile students.

Boys are slightly more likely to use WickED everyday compared to girls – and boys use the site 12.2 times a month compared to 10.3 times for girls.

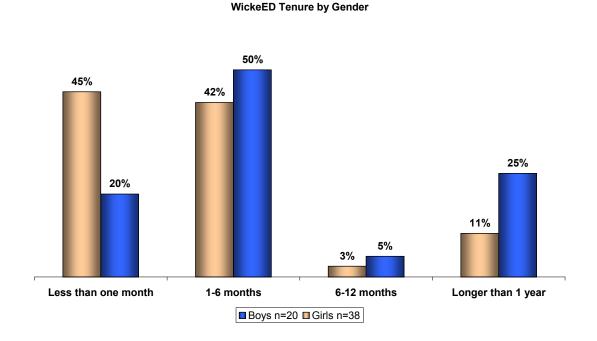
Website Tenure

Among repeat users of WickED, over one in three students (36.2%) are relatively new users, having been introduced to the website within the past month. Students from low decile schools are more likely to be new users of the site, with 55% using for less than a month.



As seen in the chart below, very few students are long term users.

Interestingly, indications are that boys are more likely to be longer term users of WickED which may correspond with their greater likelihood toward teacher-led use of WickED in the classroom.



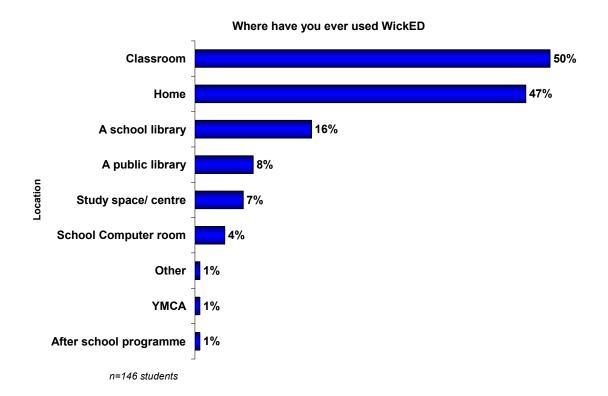
Locations Of Usage Of Wicked

The classroom is the primary location for WickED use, consistent with the WickED team's initial findings about usage patterns and technical statistics indicating that the peak hours of use for the site are during school hours between 9am and 2pm, with nearly 50% of page impressions occurring during that period.

However, nearly as many students have ever used WickED at home and this correlates with the upward trends in use of the site during the after school period (between 3pm and 4pm) which were noted during 2005.

Far less popular locations of access are libraries and study centres.

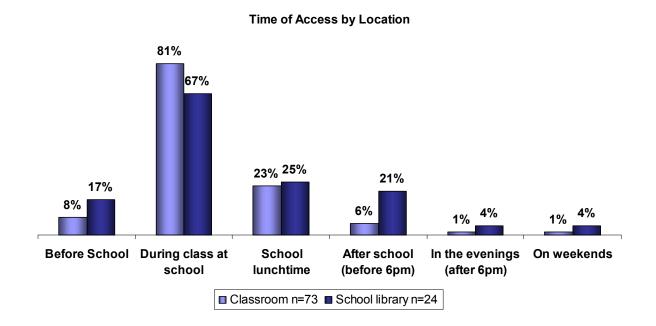
As noted earlier in the report, Internet access at study centres and, subsequently, use of WickED at a study centre is very low. There is, however, little variance across school decile with 8.2% of high decile students having ever accessed WickED from a study centre compared with 4.9% of mid decile and 6.5% of low decile students.



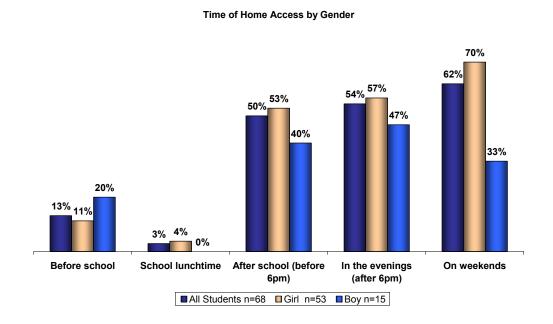
Some key differences exist across places of access among boys and girls, and those of various age. Boys are far more likely to access the WickED site in the classroom compared to girls (67.3% vs 41.2%), probably coinciding with the large proportion of 12 year olds boys and teacher-led usage among this age group. Girls are far more likely to have accessed WickED at home (54.6% vs 30.6% of boys). This is consistent with the greater proportion of girls aged under 11 and the finding that 71% of 7-10 year olds have accessed the site from home compared with 35% of 11 and 12 year olds and 42% of those over 13.

Use of WickED in the school library are more common among those aged 11 and over and access from a study centre is greater among those 13 and over (13% vs 5% of 11-12s and 3% of 7-10 year olds).

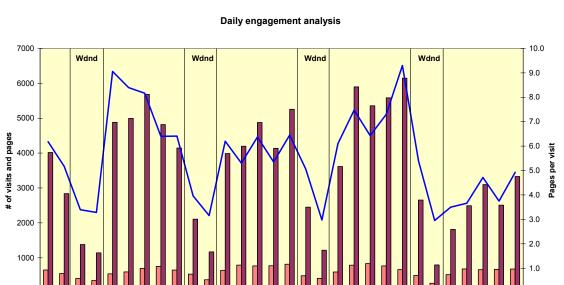
The chart below looks at the usage of the WickED website within the classroom and school libraries by the time of day. Connection during class time dominates, though there is reasonable use at lunch time and some use in the school library after school hours.



Looking at access at home, not surprisingly, after school or weekend use dominates though those aged 13 or more are the least likely to access the site on the weekend (50% vs 68% of 11-12s and 63% of 7-10s) but more likely to use the site after school. The chart overleaf reveals greater use at home among girls, in particular, weekend use.



Analysis of the site statistics found that visitors are less engaged (i.e. view fewer pages on average) on the weekends than during the week, illustrated in the chart below for a typical month (September 2005). This may correlate with a different style of usage during lessons than when using the site independently at home, but reveals an opportunity to grow



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Number of visits Pages

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Source: AWStats September 2005

Motivations For Visiting WickED

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The table below reveals students' reasons for using WickED, with notable differences in motivations across the various age groups. Teenagers are more likely to visit the site for school work and to communicate with other students, and together with 11 and 12 year olds they are likely to use WickED in a lesson – indicating that teachers of younger students could be making more use of the site within their lessons.

Younger children use the site for fun but also to help them learn and as seen, there is very little 'publishing' to the site -5% or less.

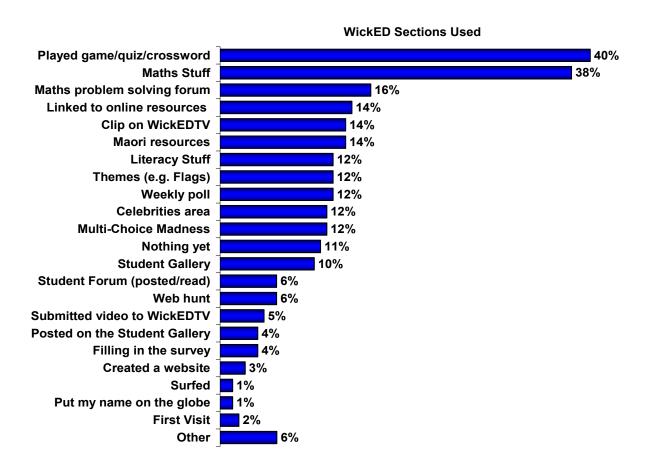
Reason	7-10 year olds	11-12 year olds	13+
For fun	<u>50%</u>	44%	44%
Help me learn	<u>58%</u>	<u>49%</u>	38%
Answers to school questions	11%	14%	<u>24%</u>
Ideas for school questions / projects	13%	18%	<u>24%</u>
Use in a class lesson	16%	22%	33%
Just curious	11%	19%	22%
Teacher / adult told me to use it	18%	<u>32%</u>	20%
Post schoolwork to the site	3%	5%	4%
Talk / chat with other students	3%	8%	<u>16%</u>

Boys are more likely to use the site for all of the above reasons with the exception of use in a class lesson, for which they are on par with girls. Boys are far more likely to post school work on the site (10% vs 1% of girls) but they are also far more likely to state that they use the site because a teacher / adult simply told them to (33% vs 21% of girls). Regardless, there are still good indications of independent thinking and 'managing self' across both girls and boys and those of all ages.

This is also the case among those students who feel they are having difficulty at school. They are actually more likely to use the site to help them learn (56% vs 46%), more likely to post school work to the site (11% vs 3%) and to talk / chat with other students (19% vs 7%) compared with those who are confident in their school work. This reinforces the value of the site among those faring less well at school, as a learning tool not just for curriculum-based topics but for general learning across the core competencies.

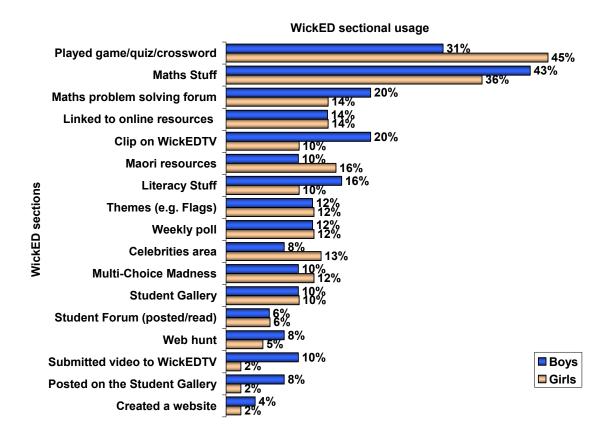
WickED Content Consumed

The chart below shows the sections of the WickED website students have ever used. "Playing a game, taking part in a quiz or crossword" is the number one activity for students at 40%, and using "Maths Stuff" comes a close second with 38.4%. This is consistent with the site behavioural statistics where results for September 2005 (chosen as an example) indicated that the areas of the site which generate the most page views are Maths Stuff (25% of page impressions in September 2005), Interactives (24.5%) and also Science Stuff (7.6%). The site tracking does not break down visitors by area of the site, so page impressions have been used as a measure of the popularity of these areas. It is important to note that site architecture may cause these results to be skewed.



Overall, students have used 2.9 activities on the WickED website which reveals good cross-sectional usage, particularly when taking into account the large proportion of first time visitors. Other comparable metrics include the finding that on average, Studyit visitors make use of 3.2 different subject areas on the site and across the large Australian portal, ninemsn.com.au, the average user visits 2.8 'channels' of the site.

On WickED, girls are more likely to have used the fun, interactive elements of the site while maths is a key focus for boys, with "Maths Stuff" attracting the highest number of boy visitors at 42.9% and 20.4% of boys have also used the "Maths problem solving forum". Boys are also more likely than girls to submit content to the site such as a video to WickED TV or posted to the student gallery, as seen in the chart below.



Students from low decile schools are more likely to play a game or use "Math Stuff" than other students and overall, those at low decile schools are using all sections more than students from high decile schools, the exception being Multichoice Madness, completing a web hunt and submitting content to the site.

	All	Low Decile	Mid Decile	High decile
	Students	1-3	4-7	8-10
	N=146	N=49	N=41	N=49
Played a game (maths, science), did a quiz, did a crossword	40.4%	48.4%	46.3%	34.7%
Maths Stuff	38.4%	45.2%	29.3%	38.8%
Used the maths problem solving forum	16.4%	22.6%	7.3%	12.2%
Linked to online resources (in the Information station, Literacy, Maths or Technology section)	14.4%	16.1%	17.1%	8.2%
Watched a video clip on WickEDTV	13.7%	16.1%	9.8%	10.2%
Used the Maori resources	13.7%	19.4%	14.6%	10.2%
Used the literacy activities (Literacy Stuff)	12.3%	12.9%	9.8%	10.2%
Themes (e.g. The World of Flags)	12.3%	9.7%	14.6%	8.2%
Answered the weekly poll	12.3%	16.1%	4.9%	10.2%
Checked out the celebrities area	11.6%	16.1%	2.4%	10.2%
Answered questions in Multi-Choice Madness	11.6%	9.7%	7.3%	14.3%
Looked at the Student Gallery	10.3%	16.1%	7.3%	8.2%
Posted a message or read messages on the Student Forum	6.2%	12.9%	2.4%	4.1%
Completed a Web hunt	6.2%	6.5%	7.3%	2.0%
Submitted a video clip to WickEDTV	4.8%	3.2%	4.9%	4.1%
Posted something on the Student Gallery	4.1%	0.0%	7.3%	0.0%

It is interesting to note the relatively little use of the 'Themes' (now topics) given the dynamic nature of this content (ie, initiatives to create new and relevant themes each term) and that initial findings by the WickED team had found that interactives and themes were the most useful parts of the site for teaching programmes.

However, use of the themes is higher among those students who have used WickED in a class lesson (26% vs 12% generally) but it still highlights some degree of mismatch between the site managers' dedication to this content and the levels of use it is attracting. There appears to be an opportunity to



further enhance and promote this area of content to teachers to stimulate greater use among their students.

Type Of Learning Encouraged By WickED

Thinking

The games and quizzes available on the site provide opportunities for students to develop thinking skills, and they are well received by users, particularly younger users. Expanding the sophistication of the gaming platforms will likely increase their popularity and expand usage among the target, further to the comments from the student workshops in August 2005 as well as the spontaneous suggestions for improvements obtained through the online survey.

Making Meaning

The site offers many areas where students can explore different topics either independently or with guided use. These areas include Games (previously Cool Stuff), Information Station, Homework Help and Topics (previously Themes). These areas of content provide students with resources to support their efforts to discover meaning in ideas, and exploring below the surface of issues.

Aside from the interactive games and Maths Stuff however, there is relatively little use of other content areas and site visitors should be further encouraged to explore multiple categories of the site with further cross promotion. For example, links and information about 'Information Station' from within the 'Games' category and vice versa. At present, the site relies on users to be pro active in exploring the top navigatio options and often they can be forgotten



Relating To Others

WickED facilitates student communication via online forums, as found under Homework Talk. This type of function can be key in helping children learn how to interact and communicate with others and Nielsen//NetRatings' qualitative research has found that services like instant messenger are really helping young people build their social skills and social confidence.

The WickED forums can be used in a similar manner and as mentioned earlier in the report, the challenge lies in encouraging greater use of the forums – usage is low and there is some degree of dissatisfaction or indifference toward the degree to which the site helps students work with other students.

There can be a great hurdle associated with using forums, eg registration and login, and they can be daunting for new users who are unsure of the protocols and processes. While the site offers a clear link 'How to use Homework Help', this could be made more fun and enticing with language like 'New to Homework Help? We'll get you started' or similar, in bold and colourful text. Forums can also be an excellent way to encourage repeat and frequent visitation of the site once students become engaged in their interactions and enjoy the experience.

Managing Self

The site encourages students to explore at their own pace, with no specific direction provided for 'expected' activities to be performed on site. Students are thus provided with ample opportunity to take ownership of managing their own time and activities on the site and as seen in earlier results, students are visiting WickED for a variety of reasons, including independent use as well as lesson-based use. There is evidence of 'managing self' through pro-active use across all profiles, including those faring less well at school and most students are satisfied with the degree to which the site allows them to work by themselves.

Another broad measure of the extent to which students are using the site to self-manage is their level of engagement. Average visit depth provides an indication of the level of engagement and a good way to evaluate online engagement is to compare growth in unique visitors to growth in web pages consumed. The average number of pages viewed per visit was 5.6 in 2005, lower than that found for 2004, indicating a slightly shallower visit depth and suggesting that visitors are exploring fewer pages on each visit overall. As suggested in the interim report, this measure may have been depressed by a high number of visitors dipping in to view quiz results and leaving the site, as indicated by the analysis of pages receiving the highest number of page impressions. This is likely also related to the high proportion of visits to the site (an average of 62.3% in 2005) which were under 30 seconds.

While the average time spent by a visitor to the site in 2005 was five minutes and thirty-six seconds, the high proportion of very brief visits indicates room to improve the level of engagement with the site and the degree to which students explore and interact with the site's content. This can help to increase the value that WickED offers users in all areas of learning – of both a formal and informal nature.

Participating And Contributing

The site provides students with the opportunity to contribute work for display in the 'Student Gallery' section, and students are also encouraged to develop and submit video clips. Several students and school groups have chosen to do so, illustrated in the screen grab below:

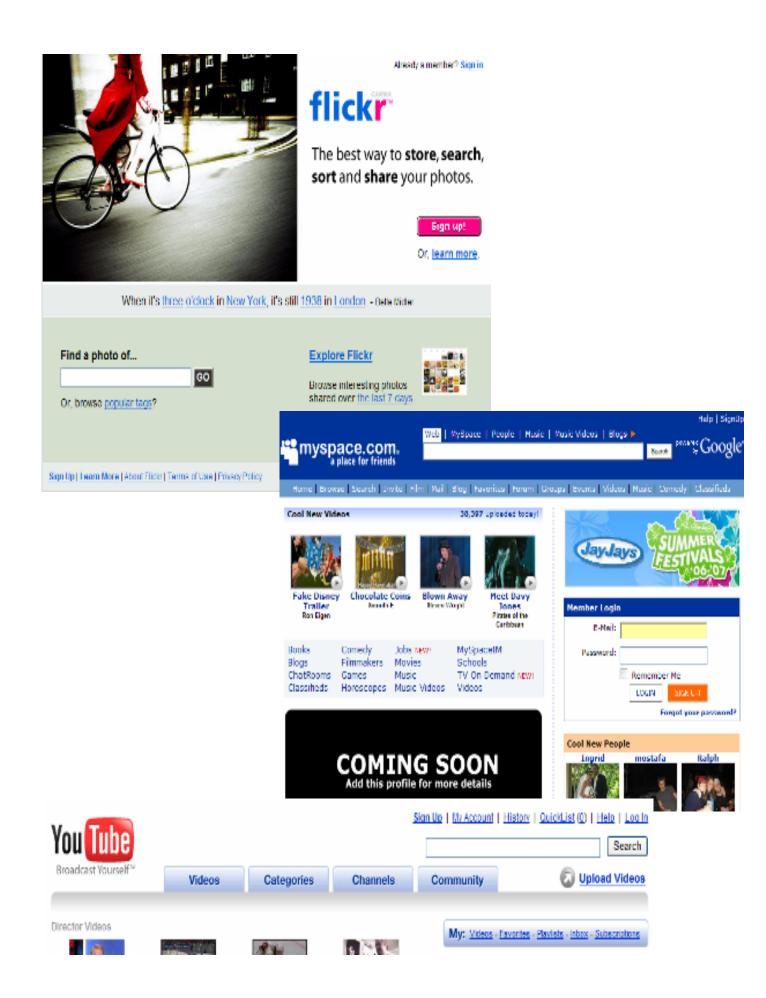


Source: Image from student gallery

However, as a proportion of overall page impressions, both of these areas of the site generate small numbers of page impressions – the Student Gallery generated no page impressions in either September or May 2005, and WickED TV generated 1.1% of page impressions in September 2005 and 1.3% in May 2005.

This is consistent with the survey findings – just 10% of students have visited the Student Gallery, 5% have ever submitted video to WickED and less than 5% cite 'posting school work to the site' as a motivation for visiting. As mentioned earlier in the report, boys are far more likely to publish work to the site than girls and efforts should be made to encourage all users of varied profiles and skill sets, to contribute work to the site.

This may begin to increase as online content sharing and 'self publishing' are growing areas, with the likes of sites like Flickr (photographs), YouTube (videos) and MySpace (social networking) all facilitating these activities. Barriers such as lack of awareness of the function, or technical issues are priorities to overcome for WickED site managers to ensure the site promotes the core learning areas of participation and contribution.



Alignment And Transfer Of Learning

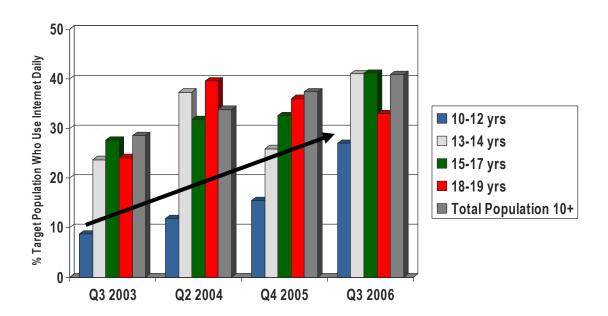
- This section explores the types of resources, both online and offline, used by students generally and those used specifically for schoolwork
- It ascertains WickED's 'fit' among these tools and the perceived importance of resources as well as the frequency with which they are used

Use Of The Internet For Leisure And Learning

Young New Zealanders are, for the most part, using the Internet actively, and it is being embraced as a tool for learning and leisure alike. Today's New Zealand youth live in a world enveloped by communications technologies, the Internet and mobile communications as central forces that increasingly have become a central component of daily life.

In recent years Nielsen//NetRatings has observed an increase in the number of adopters of the Internet, amongst other technologies, across several countries and the range of age categories. Not only is there an increasing number of Internet users, but also the variety of technologies available for young people to use in support of research, entertainment and learning has grown rapidly over the past decade.

The recent proliferation of communications technologies enables a variety of methods and channels by which youth can communicate with one another as well as access information for personal or school-related purposes. The Internet plays a central role amongst the range of technologies readily available amongst today's youth, and the chart below reveals the upward trend toward daily Internet use among 10 - 12 year olds as well as a general upward trend across all age of user in New Zealand generally⁵.



Student users of WickED are spending an average of 8.43 hours on the Internet in total, for any type of activity or purpose; slightly higher than the 7.9 hours averaged by the older, teenage audience of Studyit.

⁵ Nielsen//NetRatings NetWatch Data

This represents fairly substantial Internet usage duration amongst many students, providing further indication that the online medium is realising considerable up-take amongst young New Zealanders for a variety of purposes.

Home-based Usage

The chart below displays the number of hours that WickED users spend online at home for any purpose, in a typical week. On average students spend 5.6 hours a week on the Internet at home, far higher than the average 2.8 hours spent online at school each week.

However, a reasonable proportion (12%) of students have Internet access at home but do not make use if it while 37% are spending between 1 and 3 hours online and 20% claim to spend more than 10 hours a week or more online at home.

21% 16% 12% 12% 9% 8% 7% 4% 3% 3% 3% 2% 2% 1% to 10 Zero S ဖ တ 20 to 30 0 to 2 2 to 3 to 2 2 2 5 5 'n œ n = 146Hours spent

Total hours spent using the Internet at home

There is no significant difference between the time spent by boys and girls (an average of 5.76 hours a week for boys vs 5.63 hours a week for girls).

Students in higher decile schools are spending more time on the Internet at home than other students - 6.29 hours a week on average compared to 5.6 hours for students from low decile schools and 4.97 for students in mid decile schools. This is likely explained by the higher incidence of broadband Internet in the homes of higher decile students (71% vs 52% of lower decile students) which affords 'always on' convenient access and multiple connections, as well as a faster online experience.

Students are spending, on average, 3.5 hours a week for <u>school-related online activities at home</u> – less than half their total time spent online in a given week. This represents a lesser proportion than that found for Studyit users which is not surprising given the increasing intensity of school assignments and exams for older students in secondary school compared with that for WickED's target audience.

As seen in the chart below, 50% of students are spending up to two hours a week using the Internet at home for their schoolwork. Girls spend more time doing so than boys - girls spend on average 3.6 hours a week compared to 3.1 hours for boys and 63.9% of girls' total time spent using the Internet at home is focused on a school-related activity which is significantly higher than boys with just 54.5% of their total home usage focused on a school activity.

This gap is also evident among students attending different types of school – students at low and mid decile schools spend 62% of their time on the Internet at home doing school related activities, higher than students in high decile schools at 55%.

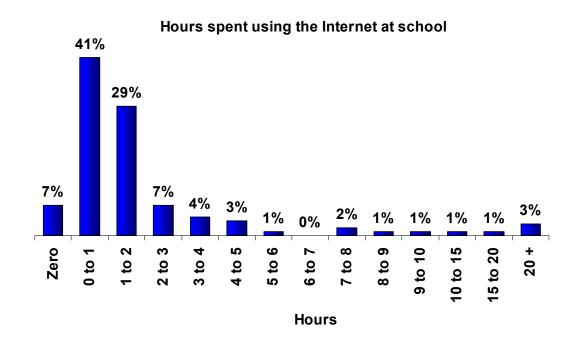
26% 24% 16% 8% 7% 6% 3% 2% 2% 2% 2% 0% 0% S ဖ / ∞ Zero တ **0** to **1** to 2 to 3 to 2 2 \$ 2 2 **Hours spent**

Hours spent using the Internet at home for schoolwork

School-based Usage

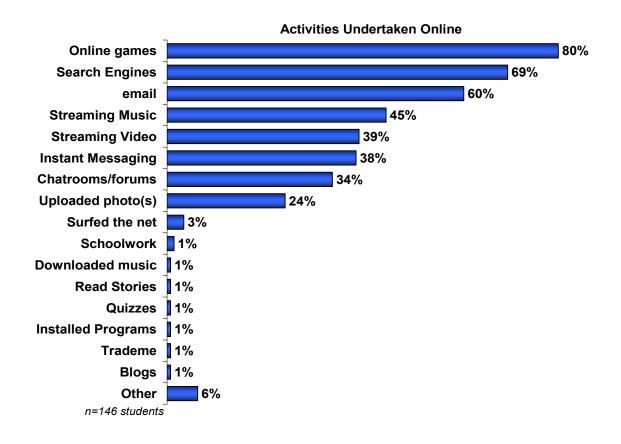
While relatively lengthy periods of Internet access are observed among students outside of school hours, students are online at school for an average of 2.87 hours a week. 6.9% claim they do not use the Internet at all at school and 40.5% use the Internet at school for less than an hour. This means that use of the WickED site forms a greater proportion of users' online usage at school than it does from home – not surprisingly. Students attending a high decile school are spending more time accessing the Internet at school compared to students in mid and low decile schools - 3.05 hours per week vs 2.59 a week for students from mid decile schools and 2.46 hours per week for those in low decile schools. This is interesting given that there is little difference in access to the Internet at school across the three groups but indicates that teachers at lower decile schools could encourage greater use of the medium and introduce more online tools, like WickED, into their lessons.

Girls' and boys' average time spent using the Internet at school is comparable - 2.82 hours a week for girls compared to 2.97 for boys.



Online Activities For Young Users

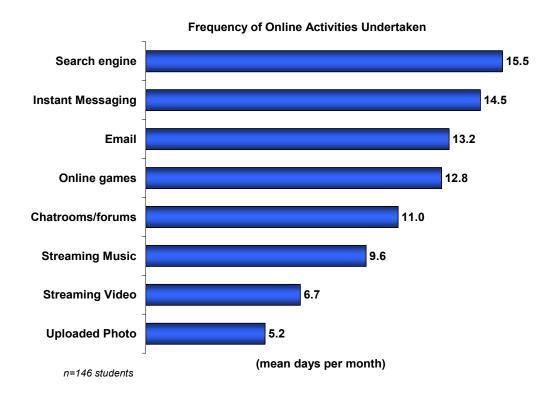
Fun activities (entertainment) and communications dominate young users' time spent online while the proportion claiming to use the Internet for school work appears extremely understated given that the sample for this survey is only those students who have used the WickED website. This may indicate that WickED is perceived by students as a fun, learning resource and not classified as 'school work' – a very positive finding!



Students from low decile schools are more likely to play on-line games and use search engines than other students while those from high decile schools have a higher occurrence of using Instant Messaging, chat / forums, email and posting photos on the Internet, than other students. Again, this may relate to their greater access to a fast connection at home which can facilitate a more positive experience for these activities.

	Students N=146	Low decile N=31	Mid decile N=41	High decile N=49
Played on-line games	79.5%	<u>87.1%</u>	78.0%	75.5%
Search engine (e.g. Google)	69.2%	<u>80.6%</u>	65.9%	69.4%
Email	60.3%	54.8%	61.0%	<u>65.3%</u>
Listened to music over the Internet	44.5%	45.2%	41.5%	46.9%
Watched a video over the Internet	39.0%	41.9%	39.0%	34.7%
Instant messaging	38.4%	38.7%	22.0%	<u>44.9%</u>
Chat room/ forums	33.6%	29.0%	29.3%	<u>38.8%</u>
Posted a photo on the Internet	24.0%	16.1%	19.5%	32.7%

While games is the online activity most likely to have ever been undertaken, the use of search and communications stimulates more frequent use, as seen in the chart below. The figures represent the average number of days students make use of these activities in a given month.



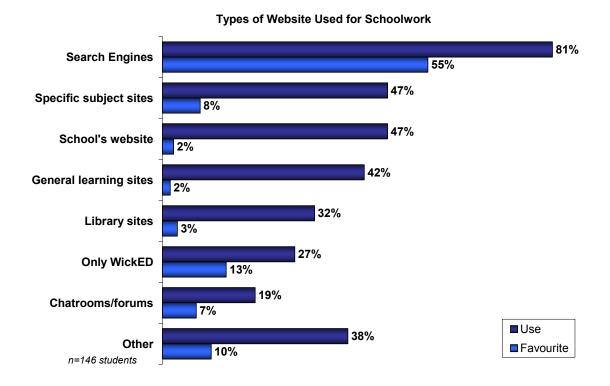
Use And Perceptions Of Study Resources

Online Resources

Understanding the resources currently used and preferred by students is important for educators to direct students to appropriate materials, whether online or offline. Isolating only online resources, search engines are the most widely used resource which is consistent with the means by which many Internet users (young and old) locate websites and information of relevance and interest. The same is true when students are locating information to support their school work. This finding is consistent with Nielsen//NetRatings' eGeneration report amongst young New Zealanders, which found that the search engine Google is the most preferred and recognisable online brand amongst 6 to 17 year olds.

As seen in the chart below, search engines are also the most favoured online resource for school work (by more than half of all students) while the WickED website is favoured by just over one in ten and over one quarter of student users claim that it is the only online resource that they use.

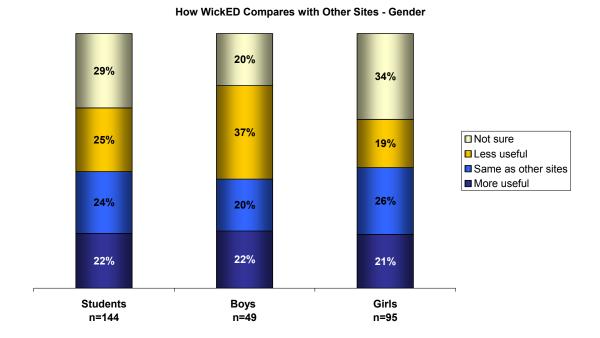
Please note that 'other' did not allow survey respondents to actually list the specific website to which they were referring.



The above pattern is mirrored by Studyit users though a greater proportion (91%) had used search engines for school work / study and 67% favoured this online resource, while only 8% had only used Studyit (vs 27% who have only used WickED) and only 20% of Studyit users had made use of their school's website compared with 47% of WickED users.

Among those students who make use of other websites in addition to WickED, just under half feel that WickED is as useful or more useful than the other online resources they have used: 22% feel WickED is

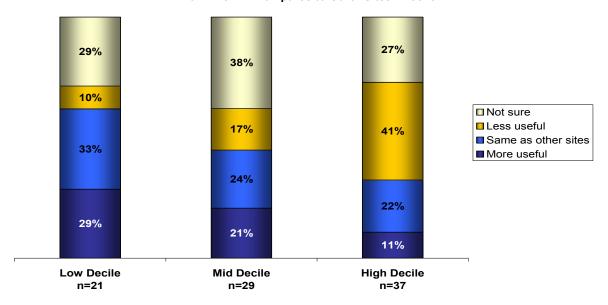
more useful, 24% feel it is just as useful, 25% less useful and 29% are unsure. Boys are much more likely to feel Wick ED is less useful than other websites used while one in three girls are unsure: this correlates with boys' lower levels of satisfaction with WickED overall, as explored in the first section of the report.



Students above the core target age for WickED are also more likely to find the site more useful than other websites used for school work – 30% compared with 18% of those aged 7 to 12 years. However, a very large proportion of 7 to 10 year olds are unsure where WickED fits in comparison to other sites and only 16% of this group felt the site was less useful than others (vs 30% of 11-12 year olds and 25% of those aged 13 and above).

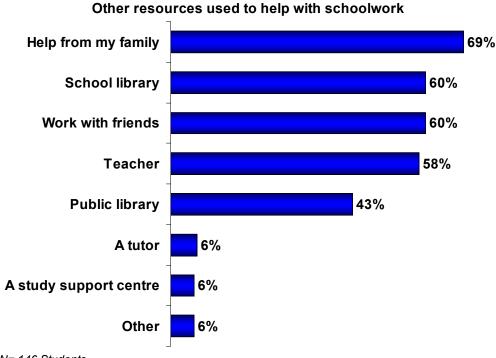
Attitudes are also slightly different among those attending schools of different deciles. Indications are that students at lower decile schools find WickED relatively more useful than those in mid and higher decile schools, which is consistent with the greater proportion of higher decile students who are 'very unhappy' with WickED.

How WickED Compares to Other Sites - Decile



Other resources

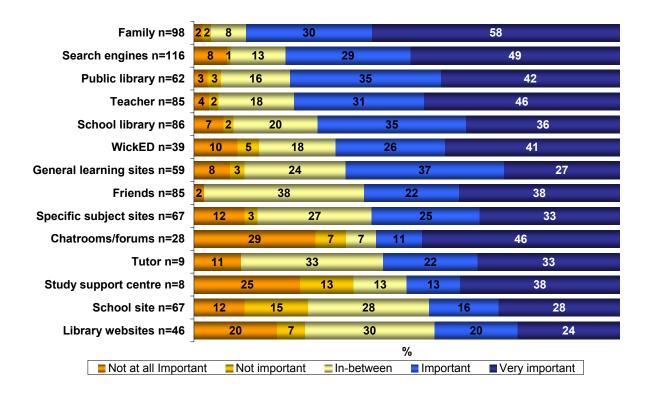
Many students are drawing on a variety of resources to help with their school work in addition to the use of the Internet. Traditional tools like friends and family, school library and teachers are used by more than half of WickED users.



N= 146 Students

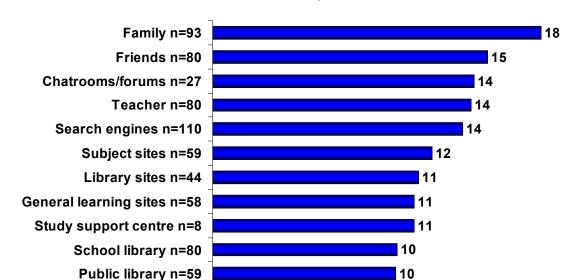
In addition to its popularity, help from family is perceived as the most important resource among students (88% feel this tool is 'important' or 'very important' in helping with schoolwork) though search engines come a close second and just edge out public libraries and teachers.

It is positive to note WickED's position in this list – as the second highest ranked online resource for its importance for helping with schoolwork. Two in three student users feel WickED is important or very important and very few feel it is not important.



The chart overleaf plots the average number of times a resource is used in a typical month. Asking for help from a family member is the resource students use most often at 17.9 times per month, with students asking friends for a help the next most used resource at 15.0 times a month and chatrooms / forums (though less popular) as well as search engines, the most frequently used online resources. This compares with less frequent use of the WickED website and identifies an opportunity to encourage greater use among students to benefit their learning.

Other resources used to help with schoolwork



When comparing the frequency of using these resources specifically for schoolwork and overall use of the resource, it is interesting to note that search engines are used for school-related activities almost every time they are visited and chat rooms or forums appear to be used predominantly for schoolwork.

8

Days per month

School's site n=61

Tutor n=9

As seen in the table below, boys are more frequent users of Internet search engines such as Google than girls, similar for library websites and libraries generally, while girls spend more time than boys using chat rooms or forums as well as their school's website, specific subject sites, general learning sites and drawing on friends for help.

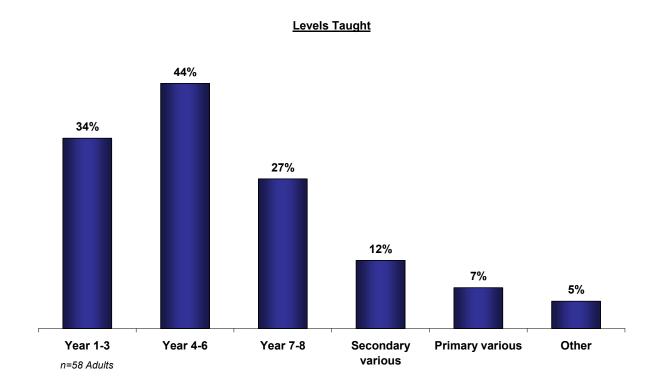
	Students	Boys	Girls
Search engines (e.g. Google) N=110	13.6	<u>16.3</u>	12.4
My school's website N=61	9.6	8.2	10.2
Library websites N=44	11.2	<u>14.9</u>	9.8
Specific subjects websites (e.g. Maths websites) N=59	12.0	10.9	12.5
	14.3	12.8	<u>15.4</u>
General learning websites N=58	11.0	9.3	11.8
School library N=80	10.1	11.7	9.1
Public library N=59	10.0	<u>11.4</u>	9.3
Work with friends N=80	15.0	13.4	<u>15.7</u>
Tutor N=8*	7.6	3.8	10.7
My teacher N=80	14.1	14.1	14.1

*Caution small sample size

Learning For Teachers And Other Adults

This section of the report focuses on results captured from the adult component of the WickED research. In a similar fashion to the main student sample, the adults were captured for inclusion within the research using a site intercept methodology, launched from the WickED site from May through August 2006. Of the total sample, less than one third are adults (28%) and among adult users, 71% are teachers, 17% are parents/guardians and 12% librarians or other learning facility staff. Caution should be exercised when interpreting the results of this section due to the low base sizes of adults captured for inclusion within the survey - in total 58 adults participated.

Of those teachers visiting the site, the majority are teaching students in year six or under (78%), which is consistent with the target ages of the WickED user audience. While most are teaching primary school levels, 27% teach lower years of secondary school which corresponds to the earlier finding that just under half of student users are aged over 12 years. The levels taught by teachers visiting the WickED site is highlighted in the graph below (note: multiple responses were allowed for those teachers who are charged with the responsibility of more than one level of student):

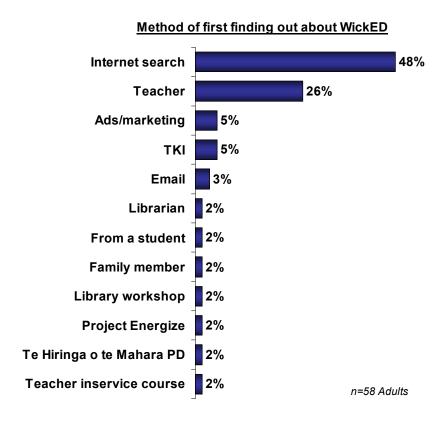


Awareness And Patterns Of Usage Of WickED Site

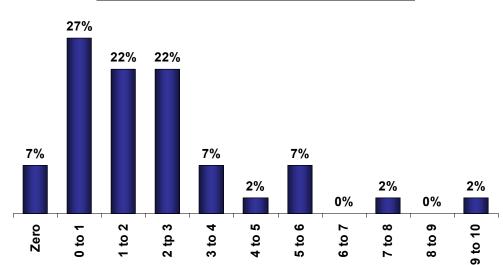
Consistent with the patterns of awareness observed amongst students, the largest proportion of adult users first discovered WickED via an Internet search (e.g. Google). Just under half of adults found WickED through a search engine, with similar levels observed between teachers and parents (teachers 49% and parents 50%).

Just over one quarter of adults first found out about the service through a teacher (26%) with teachers indicatively more likely to hear about WickED from a fellow teacher than other adults (29% of teachers first found WickED from a fellow teacher).

'Internet searches' and 'teachers' are the two main methods through which adults are finding out about the service and the next most popular method, 'advertising and marketing activities', is 21 percentage points behind 'teachers' as a method of finding the site. The full list of methods of first discovering WickED are highlighted in the graph below:



While, amongst adult users of the service, Internet searches and teachers appear to be strong sources of generating awareness, those using the services are dedicating relatively small amounts of time with students for online educational activities. Teachers are only spending an average of three hours per week (3 hours 14 minutes) using the Internet for school related activities with students. This indicates that even if greater levels of awareness were generated amongst adults, and teachers in particular, the amount of dedicated school time to using this service amongst the range of all online educational services is likely to be limited if the trends continue. The chart below shows the number of hours each week teachers are spending using the Internet with their students. The average amount of time spent online with students is comparable to teachers using Studyit with their students (less than 4 hours each week); however, while only 7% of teachers who make use of WickED do not spend any time online with their students, this response was found among 17% of teachers using Studyit. It indicates that teachers of younger students are more pro active in encouraging the use of online resources among their students.



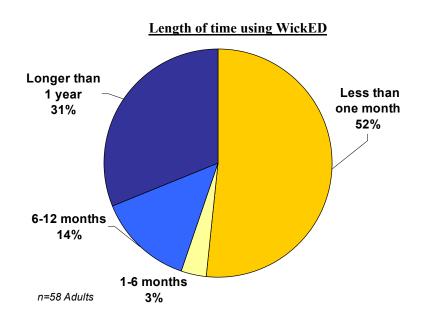
Hours

Hours spent per week on the Internet with students

The lack of time dedicated by teachers to using WickED may be influenced by a lack of confidence in using the service and potentially teachers may feel they are unable to instruct students on how to effectively use the WickED service. Over half of all adults using the WickED website have been doing so for less than one month, with less than one third having used the site for longer than one year (31%). Teachers show only marginally longer tenures, compared to all adults, at 34% (used for one year or longer). With more than half of all adult users having interacted with the service for less than one month, these new users' confidence with the service is likely to increase over time and these adults may start actively engaging in educational activities on WickED with their students/children.

n=41 teachers

As found for student users, there is also an opportunity to stimulate greater repeat visitation and loyalty to the WickED site among adult users.

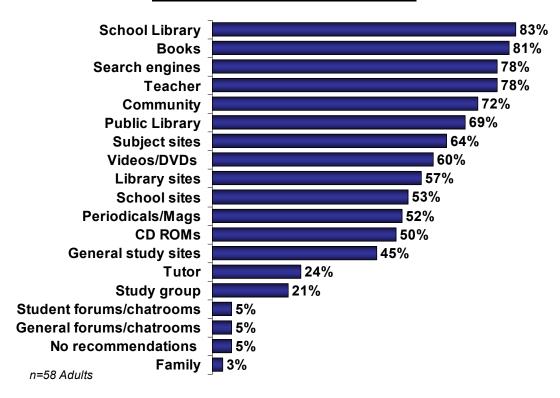


Recommendation Of Resources To Students

In terms of the collection of resources available to students for educational and study purposes, both online and offline, adults are most likely to recommend offline resources with 'school libraries' and 'books' the two most recommended resources (83% of adults recommend the school library and 81% of adults recommend books). Other popular offline resources include teachers (78%), people from the community (72%) and public libraries (69%). While offline resources are clearly favoured as a learning resource for students, search engines (e.g. Google) are the third most popular resource for recommendation overall, with 78% of adults recommending students use them for help with school work and study.

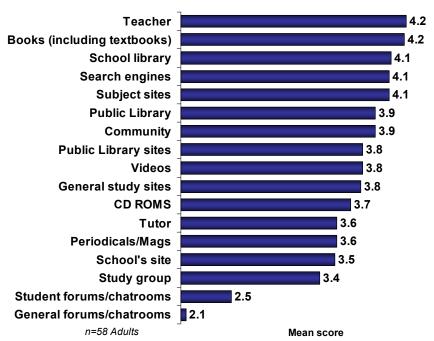
While just over three quarters of adults are recommending a search engine to students, other online resources are less recommended with subject specific websites (e.g. Mathematics websites) recommended by less than two thirds (64%), and library sites (57%), school sites (53%) and general study sites recommended by less than half (45%). The educational resources recommended by adults to students are highlighted in the chart 1.

Resources Recommended to Students



In addition to citing the extent to which they recommend various resources, adults were also asked to rate the importance of each resource on a scale from one to five, where a score of one indicated the resource was not important at all and a score of five was very important in helping young students learn. Traditional resources achieved the three highest scores overall, with teachers achieving the highest importance mean score of 4.24, followed by books with a score of 4.22 and the school library at 4.09. Internet search engines and specialist websites were rated equally important with a score of 4.07. The mean importance scores (maximum score 5) are highlighted in the chart overleaf:

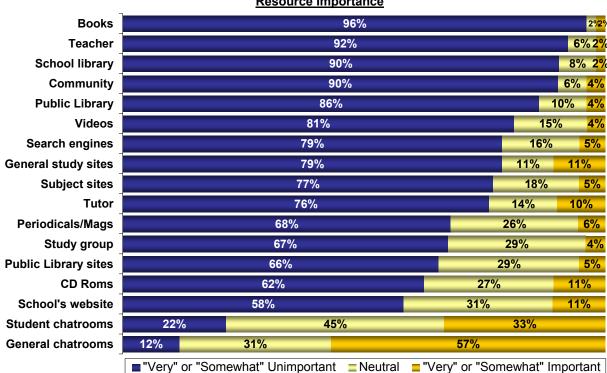




The importance of the various resources follows a similar trend to those resources actually recommended by adults, with offline resources accounting for the top 3 most important resources, as perceived by adults. Teachers, books and the school library are believed by adults to be the most important resources and search engines are seen to be the fourth most important resource overall and the most important online resource for students. It is interesting to note that adults perceive Chatrooms and forums to be the least important of all resources listed with student chatrooms scoring 2.5 and general chatrooms 2.1 out of five. This highlights the importance of clearly educating adults as to the difference between a forum and a chatroom and emphasizing the safety of WickED's moderated forums to overcome any misconceptions about the service.

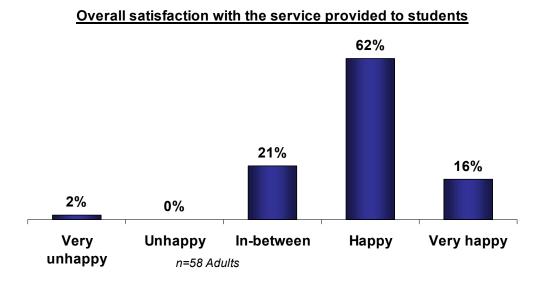
The net importance score (excluding "N/A" and "No Opinion") can be seen in the chart below.

Resource Importance



Perception Of Quality Of Service Of Wicked

In terms of adults' perception of WickED, overall most are happy with the service. Over three quarters (78%) of all adults are either "happy" or "very happy" with the service WickED provides to students, and almost nine out of ten teachers (88%) rate the service at the same level. Adult satisfaction levels are demonstrated in the chart below:



While base sizes are low, adults satisfied with the service were asked to identify specific areas of the WickED site they feel are performing well. The results indicate that most adults and teachers are unsure as they are new to the service, however 10% of adults spontaneously mentioned that they are particularly satisfied with the range of activities available and 7% with the Maori resources available. The table below reveals the spontaneous responses relating to those areas in which adult users feel WickED is performing particularly well:

DK new to the site	13.8%	8
Range of activities	10.3%	6
Maori resources	6.9%	4
All areas	5.2%	3
Colourful/interesting graphics	5.2%	3
Good service	3.4%	2
Interactive site	3.4%	2
Activities for all ages	3.4%	2
Quizzes	3.4%	2

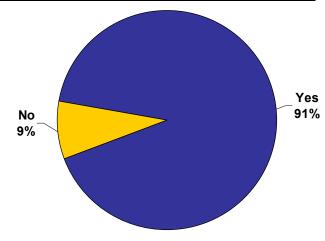
In addition to citing specific areas of satisfaction with the site, adults were also asked for suggested improvements to the service. Again, base sizes are low, however verbatim comments are outlined below:

- "Enable teachers to request themes".
- "Enable children... from different schools to talk to each other".
- "Have more topics and assessments".
- "Clearer menu for navigation".
- "Language eg. Verbs/adverbs/adjectives etc"
- "Providing a more varied programme more consistently"
- "Quizzes need to be updated, update resources"
- "At the start of Maori interactives there should be an indication of whether the interactive is in both Maori and English this would be helpful for mainstream classroom teachers".
- "Add some maths games for Year 1-3 students"

Recommendation Of WickED And Situations Of Usage

The clear majority of adults claim to actively recommend WickED to children in their care. Overall, 91% of adults report to have recommended the WickED website to the children in their care, and all teachers participating in the survey recommend the service to their students. This is far higher than the 56% of student users who found out about WickED from a teacher and reveals that while may teachers are proactive in their use and recommendation of the site (and willing to give some time to complete the survey), there are also a number of teachers who are either unaware of WickED or do not promote the site to students either because they are dissatisfied with the value it has to offer or due to indolence.

Do you recommend WickED to children in your care?

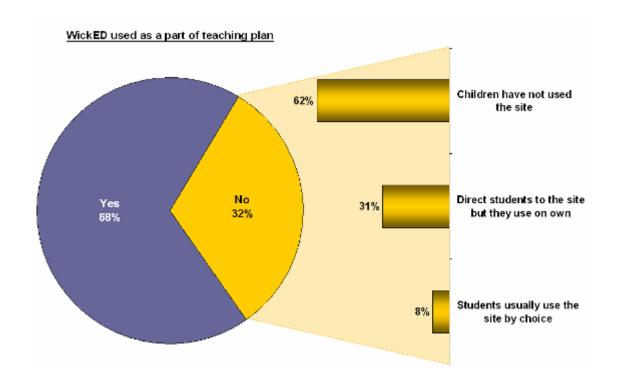


n=58 Adults

Just over four fifths of teachers recommend WickED to all types of students (81%), with only 12% specifically targeting low achieving students and 10% targeting high achieving students. This reinforces the notion that WickED is perceived to be a service for all students and not for specific types of students such as those that are academically gifted or challenged, however, as seen in the student profiles – the site is predominantly being used by academically confident students (refer Service Reach). It remains a challenge to ensure that teacher of less confident and competent students are also aware of, promoting and encouraging use of WickED to broaden the reach of the service.

The types of students to which teachers recommend WickED are highlighted in the chart below:

Consistent with the high level of recommendation cited by teachers and with students' cited situations of usage, over two thirds of teacher visitors to the site report using WickED as a part of their study plan (despite the low levels of reported time dedicated to online activities in school illustrated earlier in this section). Of the 32% of teachers that have not used WickED as a part of their teaching plan, most claim that to their knowledge their students have not used the site (62%), just under one third direct students to use it in their own time (31%) and 8% believe that students use the site by choice. The use of WickED as a part of the teaching plan is shown in the chart below:

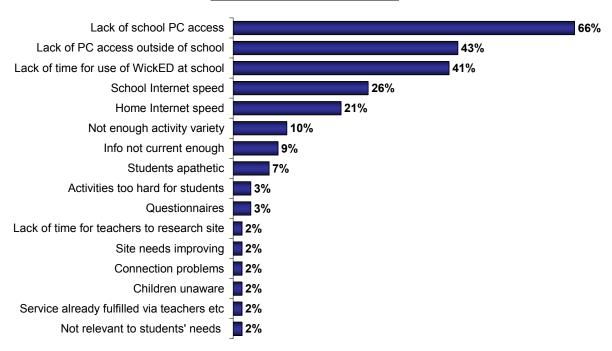


Perceived Barriers To Use

The main barriers to students using the WickED website, as perceived by adults, are students' lack of access to a computer and the Internet at school (66%), their lack of access at home (43%) and a lack of available time to dedicate to using WickED during school hours (41%).

It is also interesting to note that just over one quarter of the adult's surveyed have concerns regarding the schools' Internet connection speed and one fifth have concerns over home Internet connection speeds (for those students with connections at home). This clearly indicates that while other challenges need to be overcome to provide access and time for use of WickED in school, increasing the speed of access available at schools may have significant impact on uptake of the service during school hours. The full list of barriers can be seen in the below chart:

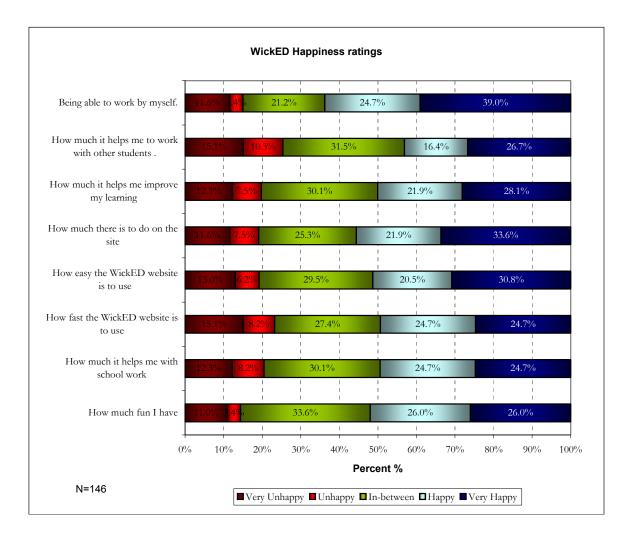




Overall, those adults who chose to participate in the survey are positive toward WickED and the value it offers students. In addition to the constructive suggestions offered, complimentary closing comments included:

- "Just keep doing what you're doing."
- "We have enjoyed what we have seen and done on the wicked site. Keep the topics and activities coming!"
- "Fantastic site...Pai rawe atu."

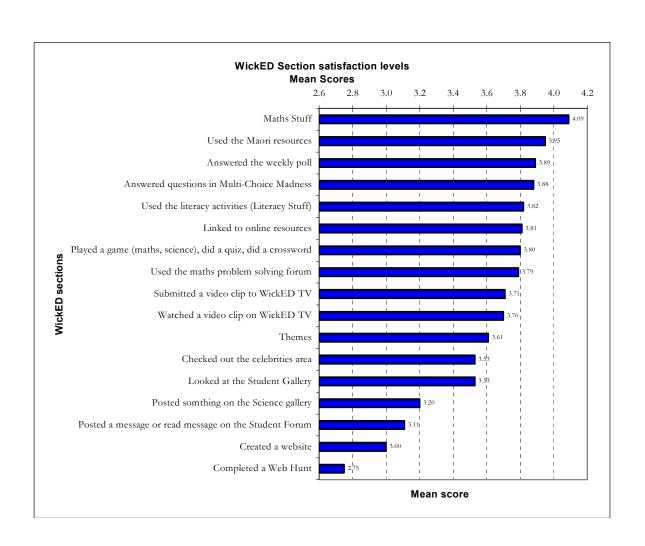
Appendices



	All students N=146	Boys N=49	Girls N=97
Being able to work by myself.	3.76	3.51	3.89
How much there is to do on the site	3.58	3.20	3.77
How much fun I have	3.53	3.18	3.70
How easy the WickED website is to use	3.50	3.10	3.70
How much it helps me improve my learning	3.46	3.14	3.62
How much it helps me with school work	3.41	3.10	3.57
How fast the WickED website is to use	3.36	3.16	3.45
How much it helps me to work with other students .	3.29	3.06	3.41

	All	Low	Mid	High Decile
	students	Decile 1-	Decile	8-10
	N=146	3 N=49	4-7	N=49
			N=41	
Being able to work by myself.	3.76	3.87	4.02	3.61
How much there is to do on the site	3.58	3.87	3.73	3.45
How much fun I have	3.53	3.84	3.54	3.51
How easy the WickED website is to use	3.50	3.81	3.71	3.33
How much it helps me improve my learning	3.46	3.90	3.66	3.16
How much it helps me with school work	3.41	3.74	3.66	3.24
How fast the WickED website is to use	3.36	3.55	3.46	3.33
How much it helps me to work with other students .	3.29	3.45	3.32	3.12

Satisfaction with 'Maths Stuff' - split by gender and school decile



Average satisfaction score for specific areas of WickED

