

Research Report: The Wireless Writing Program 2004-2005

**Prepared for:
Peace River North (SD 60)**

by:

**Dr. Sharon Jeroski
Research Director
Horizon Research & Evaluation Inc**

**2192 East Kent Avenue
Vancouver, BC V5P 4X2**

sjeroski@shaw.ca

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HIGHLIGHTS: Wireless Writing Program 2005

WWP students sustained the gains reported in previous years, and continued to increase their achievement levels.

Peace River North students who participate in the Wireless Writing Program continue to achieve strong results in writing performance. The District Writing Assessment in June 2005 indicated that:

- 88% of students meet grade level expectations
- nearly half of all students reached the top two levels of achievement, an increase from 36% in 2004 to 46% in 2005
- students showed substantial improvement over the school year
- a group of students tracked over two years were more successful in meeting grade-level expectations by the end of grade 7 than they had been at the end of grade 6

The gender gap has disappeared.

Overall, boys and girls in 2005 achieved the same high level of performance: 89% of boys met expectations compared with 88% of girls. The gender gap which has been diminishing since the beginning of the WWP disappeared on the 2005 District Assessment.

Improvements in student writing have depth and substance.

Most improvement in student writing is attributable to higher scores for *meaning (ideas and details)*, *style (language and sentences)*, and *form (organization)*. Changes in students' use of *conventions (grammar and spelling)* are not as dramatic. This result suggests that the improvement in student writing are substantial, and not merely the result of improved proofreading or tools such as spellchecker.

Students report increasing use of revision skills since 2003.

Teachers, students, and parents strongly endorse the WWP.

Teachers, students, and parents continue to react positively to the WWP. They like the program, want it to continue and extend into high school, and believe that it has affected students positively, including:

- writing skills
- attitude and motivation
- ability to organize their work
- technology skills
- confidence

Students' view of the WWP appear unaffected by whether they are in their first or second year in the program.

Teachers also report a number of ongoing challenges including technology problems (repairs and servicing), and ensuring that students use their iBooks appropriately (i.e., focus on school work.) Most students (80%) report that their computers worked well and were reliable.

Students' attitudes toward writing continue to improve.

Since the implementation of the WWP in 2003, more students now report that they like writing *often* or *most of the* (48% to 58%) and that they are good writers (48% to 56%).

Most teachers use effective methods and tools for teaching and assessing writing.

Almost all teachers have consistently reported, over the last three years, that they:

- use a writing process approach
- ensure that students know the criteria that will be used to assess their writing
 - adjust writing instruction according to what they find out when they assess student writing
 - integrate writing across the curriculum
 - use the BC Performance Standards to guide and assess writing, including the *Quick Scale* templates (this has steadily increased since 2003)

At the same time, teachers rarely use iBooks to engage students in dialogue and discussion in or beyond their classrooms, although they do have students access information using the Internet.

Some instructional practices have declined including:

- giving students choice in writing topics
- prompting self-assessment (a key aspect of the WWP)
- peer editing
- using electronic portfolios

Teachers continue to increase their professional use of technology.

Approximately 90% of teachers now use technology frequently in planning and teaching. Approximately two out of three reported that their ability to use iBooks to improve student achievement had improved extensively. Many teachers also report frequently integrating technology in mathematics, science, and fine arts.

Note: For details about the implementation and nature of the Wireless Writing Program, see previous research reports (2003; 2004) available at www.prn.bc.ca

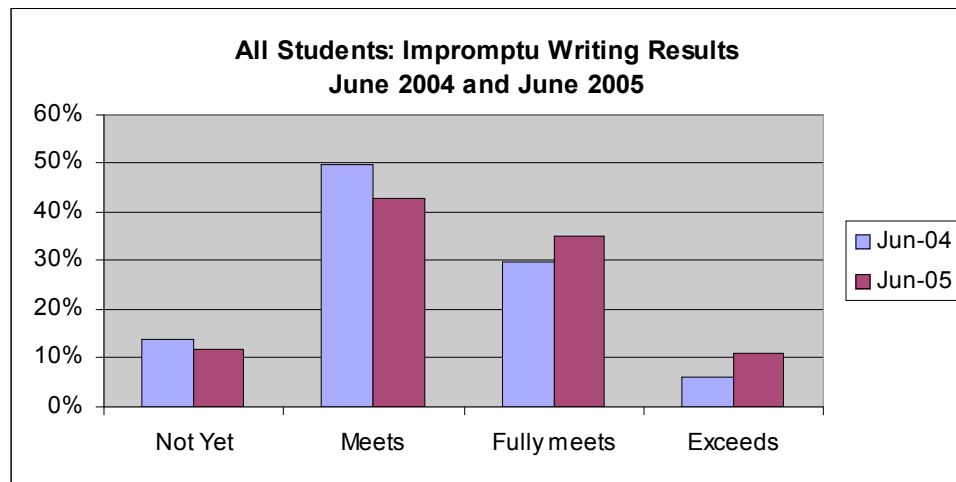
WRITING ACHIEVEMENT

Over all

Grade 6 and 7 students continue to demonstrate strong writing performance and sustain the high levels they achieved in 2004. Results in this section are based on district writing assessments conducted in June 2004, September 2004, and June 2005. Detailed results are presented in Appendix A.

88% of students meet expectations in writing.

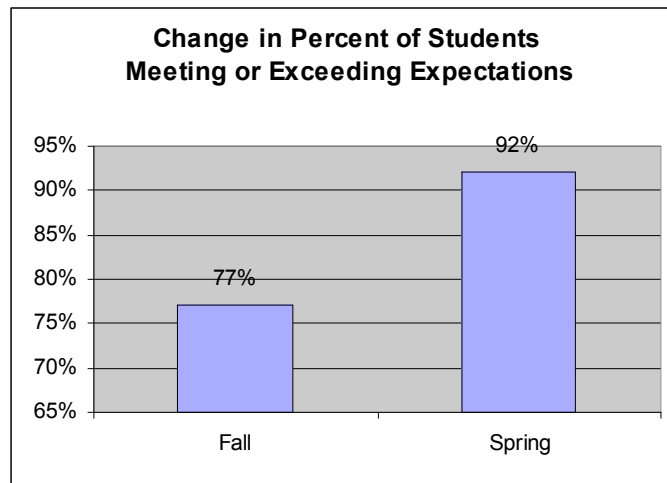
- 88 percent of all participating students met or exceeded expectations in the district June 2005 assessment. This represents a very slight gain over 2004, and indicates that initial gains are being sustained over time.
- Within the students meeting expectations, those in 2005 were more likely to score at the top two scale points than their counterparts in 2004 (46% to 36%).



Graph 1: All students: Impromptu writing results by performance levels June 2004 (n=693) and June 2005 (n= 690)

Over 15% more met expectations in June than in September.

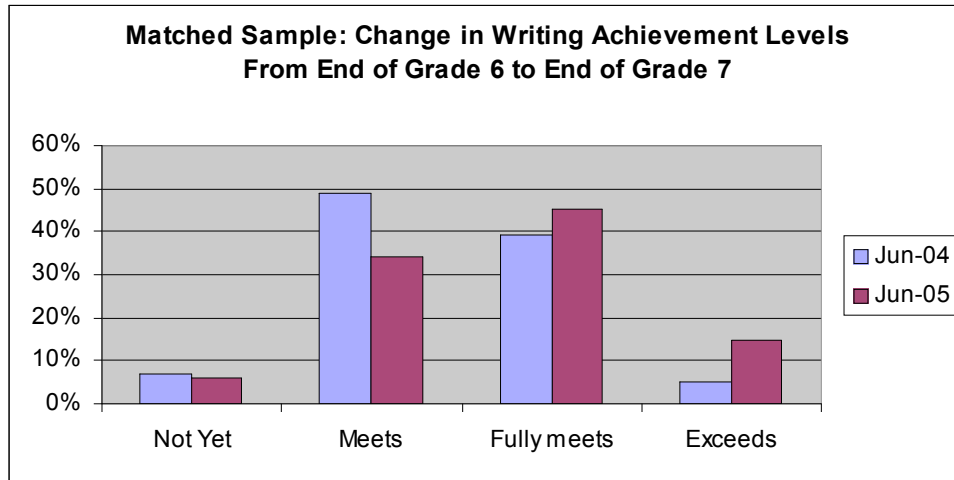
- To check on growth during the year, the performance of a random sample of 123 students was tracked from September 2004 to June 2005. This group showed strong improvement, consistent with results in previous years, 15% more meeting expectations in June than in September, and average scores were considerably higher (2.0 to 2.6.)



Graph A2: Change in Percent of Students Meeting or Exceeding Expectations from Fall 2004 to Spring 2005 (random sample; n=123)

Students tracked over two years were more likely to fully meet or exceed grade level expectations at the end of grade 7 than at the end of grade 6.

- To ensure that results were not affected by changes in the student population (e.g., students moving in or out), a random sample of students were chosen for intensive analysis (the ‘validation sample’.) Their papers were scored by at least 3 independent raters to ensure consistent results (as opposed to more common scoring by 2 raters); only students who participated in both the June 2004 assessment, as grade 6 students, and the June 2005 assessment as grade 7 students were eligible. Students were randomly selected from all grade 7 classes resulting in a sample of 45.
- Overall, the same percent of students in this sample met expectations at the end of both grades (93%-94%.)
- However, the average increased from 2.4 to 2.7 (on a four-point scale), and 60% attained the top two levels (fully meets or exceeds expectations) at the end of grade 7 compared to 44% at the end of grade 6.
- This suggests that many students who are able establish basic competence in their first year in the program (i.e., meet grade 6 expectations at a minimal or moderate level) are able to solidly and increase their performance in their second year in the WWP (i.e., fully meet or exceed grade 7 expectations.)



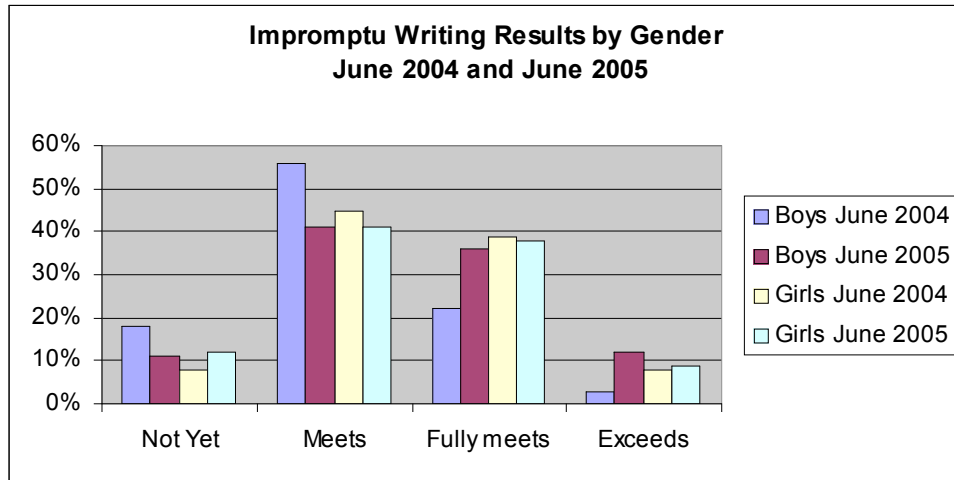
Graph 3: Matched Sample: Changes in writing achievement levels tracked from grade 6 through grade 7 (random sample; n=45)

Gender

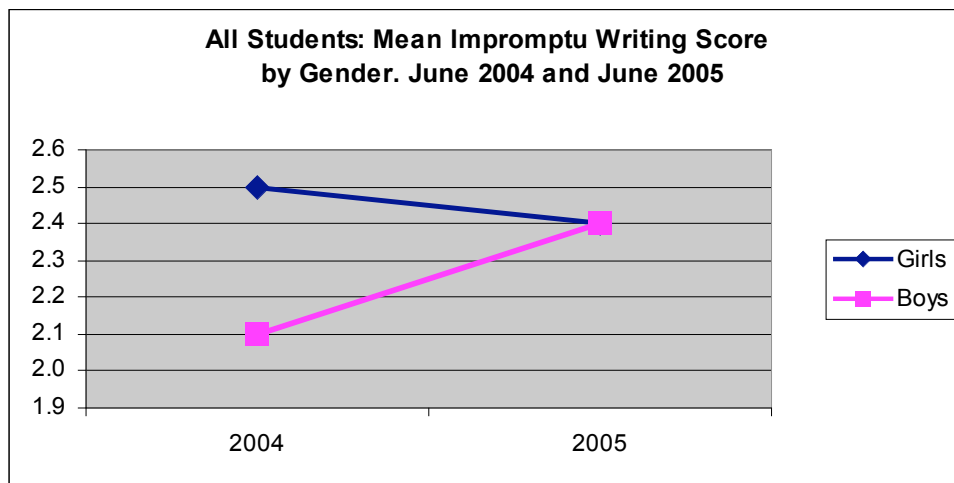
The gender gap between boys and girls on the district writing assessment has disappeared.

Overall, boys and girls achieved at the same high level.

- 89% of boys and 88% percent of girls met grade level expectations in June 2005. This represents a significant change from June 2004 when there was still a gap of 10% on the district assessment (82%-92%), although it was considering narrower on provincial testing (FSA.)
- In 2005, approximately the same percent of boys and girls (48%) achieved the top two scale points (fully meets or exceeds expectations); slightly more boys than girls were scored as exceeding expectations (12% to 9%) although this difference is not significant.



Graph 4: All students: Impromptu writing results by gender and performance level. June 2004 and June 2005



Graph 5: All students: Mean impromptu score by gender. June 2004 (n=690) and June 2005 (n=693)

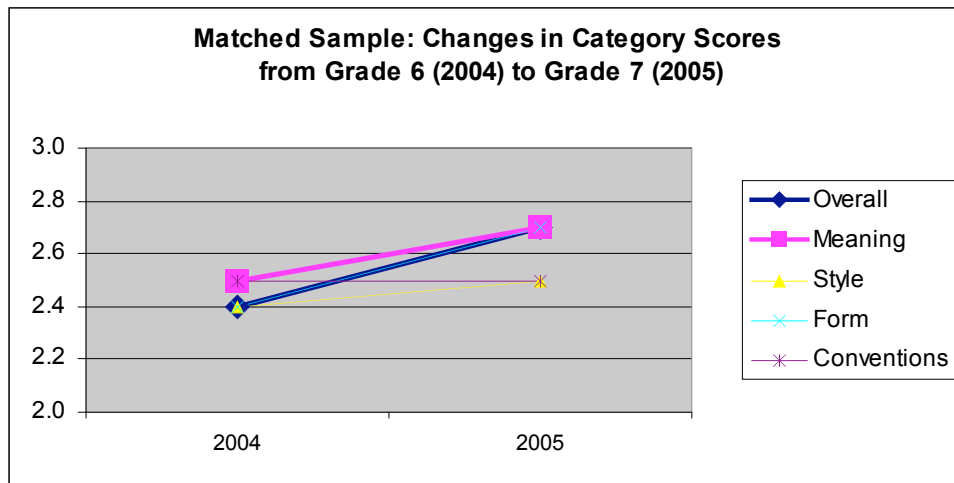
Specific Aspects of Writing

Overall, student writing showed the greatest improvement in *form* (organization); the least improvement in *conventions* (spelling, grammar, usage.)

- The papers of a random sample of students were selected for intensive analysis to enable comparisons from Fall to Spring on specific aspects of writing (meaning, style, form, conventions.) At grade 7, students showed strongest improvement in *style* (language and sentences) with 77% meeting expectations in June compared with 48% in September. Students also showed strong improvement in *form*

(organization) and *meaning* (ideas and reasoning.) However, they showed little change in *conventions*. Results for grade 6 students were less variable, with strongest gains in *form*, followed by *style* and *meaning*. As at grade 7, *conventions*, changed least among the specific aspects. Clearly, working with iBooks has helped students make some fundamental improvements in their writing; not just surface corrections.

- When the progress of a group of matched students was tracked from end of grade 6 to the end of grade 7, results were less clear. Results were judged at the end of grade 6, June 2004, using grade 6 performance standards; then, at the end of grade 7 in June 2005, using grade 7 performance standards. On average, students showed gains in all aspects of writing, although in most cases these were modest. Gains in *form* however, were substantial, with 20% of students moving from the bottom half to the top half of the scale (41% to 61%.) Again, there were no changes for conventions. Improvement in student writing scores is clearly not attributable to improved ‘surface’ or proofreading features; it appears to reflect more fundamental changes in students’ ability to create, organize, and express their ideas effectively.



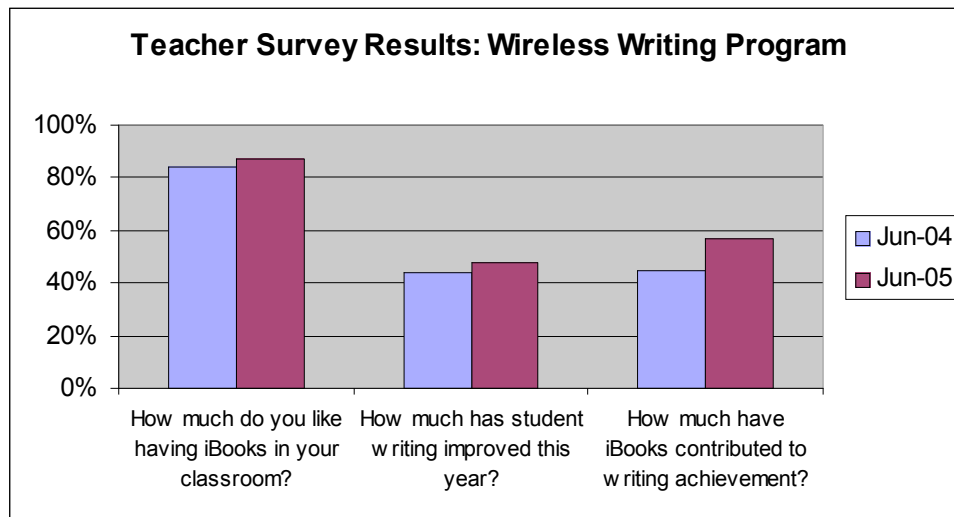
Graph 6: Matched sample: Changes in mean category scores tracked from end of grade 6 (2004) to end of grade 7 (2005) (random sample: n=45)

TEACHER PERCEPTIONS

Teachers in the Wireless Writing Program continue to be extremely positive about the impact of technology integration on their students' learning. Detailed survey results and questions are presented in Appendix B.

Teachers like having iBooks in their classrooms, and believe they contribute to improved student writing.

- 84% of teachers in June 2005 reported that they like having iBooks in their classrooms, virtually unchanged from June 2003.
- Close to 50% believe student writing has changed extensively or a great deal (the top two scale-points on a five-point scale), slightly more than in 2004.
- Over 50% believe that iBooks have contributed *extensively or a great deal* to changes in student writing achievement. This is somewhat higher than in 2004 (57% to 45%).

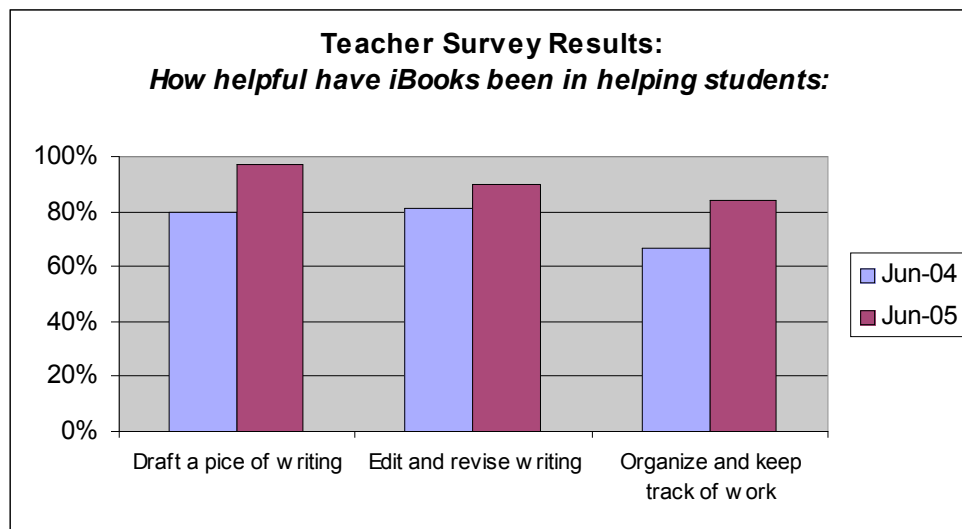


Graph 7: Teacher Survey Results: Perception of impact of *Wireless Writing Program*. Percent of responses *EXTENSIVELY* and *A GREAT DEAL* combined

- When asked about the benefits of the WWP for various subgroups of students, teachers see the program almost uniformly beneficial for high/low achieving students, for girls/boys; for students with weak organizational skills, and motivational problems; and for First Nations students. Teachers indicated that the WWP benefited each of the groups *extensively or a great deal*.
- Somewhat fewer (58%) believed the WWP benefited students with attention problems to the same degree.
- The results for all groups were slightly more positive in 2005 than in 2004.

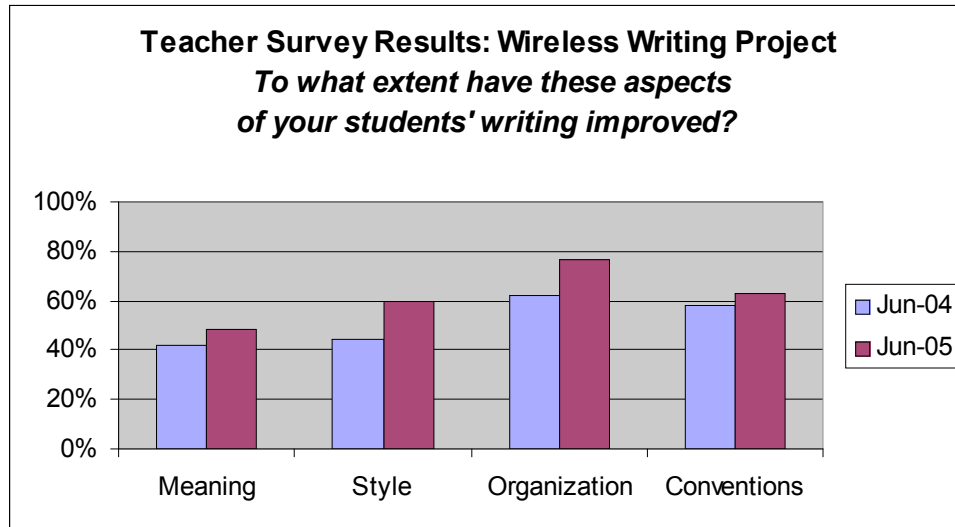
Teachers are increasingly positive about the impact of iBooks on specific activities and aspects of writing.

- Almost all teachers believe that iBooks help *extensively* or *a great deal* when students are drafting (97%), or editing and revising (90%) their writing. They are somewhat more positive than teachers in 2004 (largely, the same group.)
- Teachers in 2005 are more convinced of the value of iBooks for helping students organize and keep track of their work, with 84% choosing *extensively* or *a great deal*, compared with 67% in 2004.



Graph 8: Teacher Survey Results: Perception of impact of iBooks on specific activities. Percent of responses *EXTENSIVELY* and *A GREAT DEAL* combined

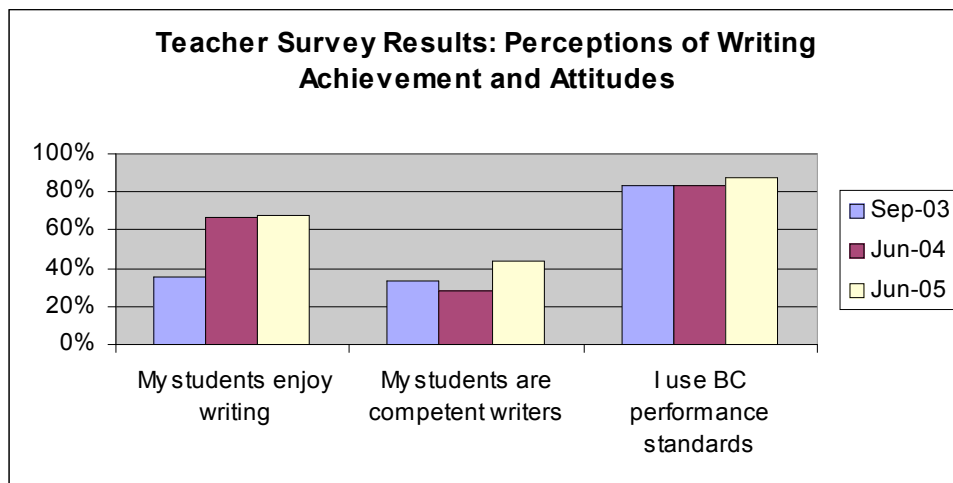
- In terms of specific aspects of writing, teachers believe that students have made the greatest improvement in *form*. This is consistent with achievement data. They see less improvement in *meaning*, and *style*, although achievement data indicate these are strong areas of change. Interestingly, teachers perceive greater improvement in *conventions* than in *meaning* or *style*. This perception is not borne out by achievement data, which indicate *conventions* show the least improvement among the various aspects.
- Teachers in 2005 were more positive about the changes in student achievement than they were in 2004, with close to 20% more seeing *extensive* or *a great deal* of improvement. In 2005, most teachers had been in the program for two years; in 2004, most were in the first year of using iBooks.



Graph 9: Teacher Survey Results: Perceptions of improvement in various aspects of students writing. Percent of responses *EXTENSIVELY* and *A GREAT DEAL* combined

Teachers are more positive about their students' writing now than they were before the WWP began.

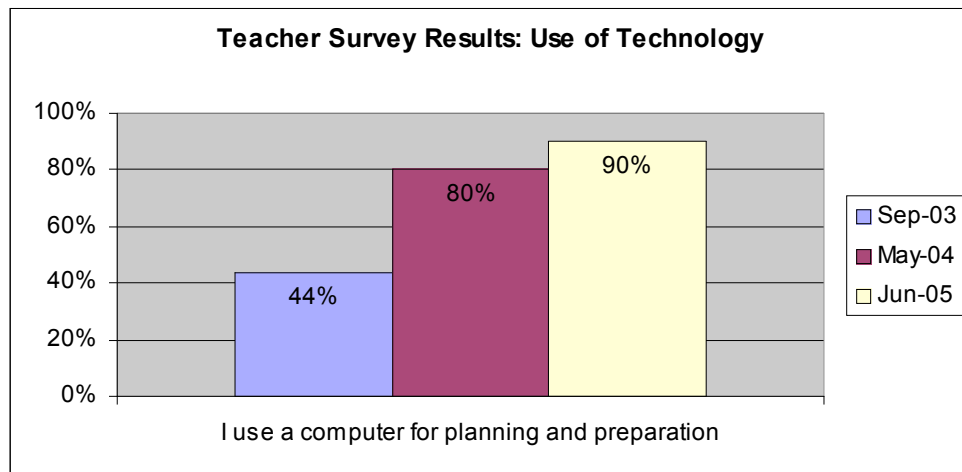
- Teachers in 2005 were very positive about their students' attitudes toward writing—much more so than in September 2003 when the program initiated in most classrooms (68% to 35%.)
- They are more likely to perceive their students are competent writers than they were before the program began (44% to 33%.)
- Teachers also report high usage of BC Performance Standards (consistently over 80%, increasing to 87% *often or most of the time* in 2005.)



Graph 10: Teacher Survey Results: Perception of student writing achievement and attitudes. Percent of responses *OFTEN* and *MOST OF THE TIME* combined

Teachers continue to increase their use professional use of technology.

- Currently 90% of teachers report using technology *often* or *most of the time* for planning and preparation. This is a substantial increase over 44% in 2003, and even the 80% in 2004.

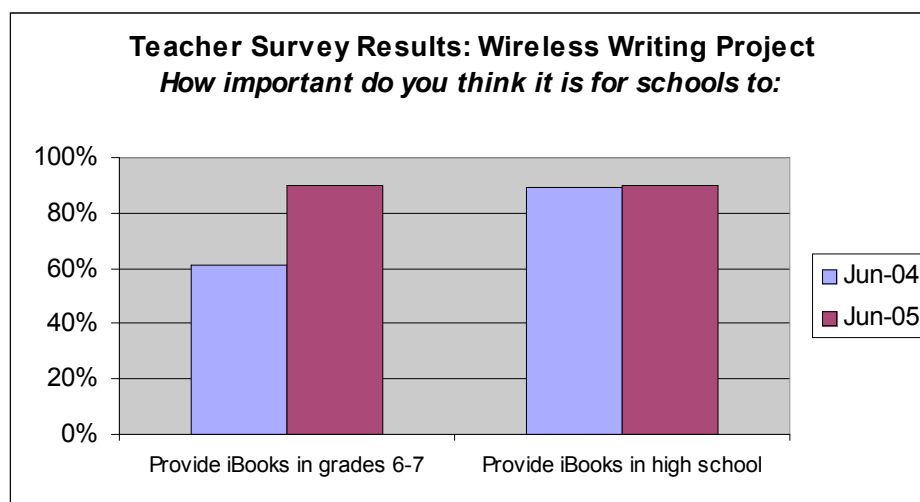


Graph 11: Teacher Survey Results: Use of technology. Percent of responses *OFTEN* and *MOST OF THE TIME* combined

- 78% of teachers report using the Internet *extensively* or *a great deal* to access professional information related to topics they are teaching.
- While a relatively small proportion (26%) of teachers report collaborating with other teachers to plan or carry out iBook activities *extensively* or *a great deal*, nearly three-quarters (73%) report doing this at least *somewhat* (top three scale points on a five-point scale.)
- At the same time, teachers' use of technology as a means of collecting and storing student work samples appears to have declined substantially since 2004:
 - In 2004, 61% of teachers reported that they had their students use the vault to store their writing *often* or *most of the time*; in 2005 this decreased to 42%.
 - Use of electronic portfolios declined dramatically, from 61% in 2004 (*often* or *most of the time*) to 22% in 2005.

Teachers strongly endorse the use of iBooks in both grades 6/7 and in high school. This level of support is increasing.

- 90% of teachers who were part of the WWP in 2004-2005 chose *extensively* or *a great deal* to indicate the importance of providing iBooks for students in grades 6/7. This is an appreciable change from June 2004, when, after their first or second year in the program, 61% chose these responses.
- Teachers in both 2004 and 2005 believe strongly that schools should provide iBooks in high school, with approximately 90% choosing *extensively* or *a great deal*.

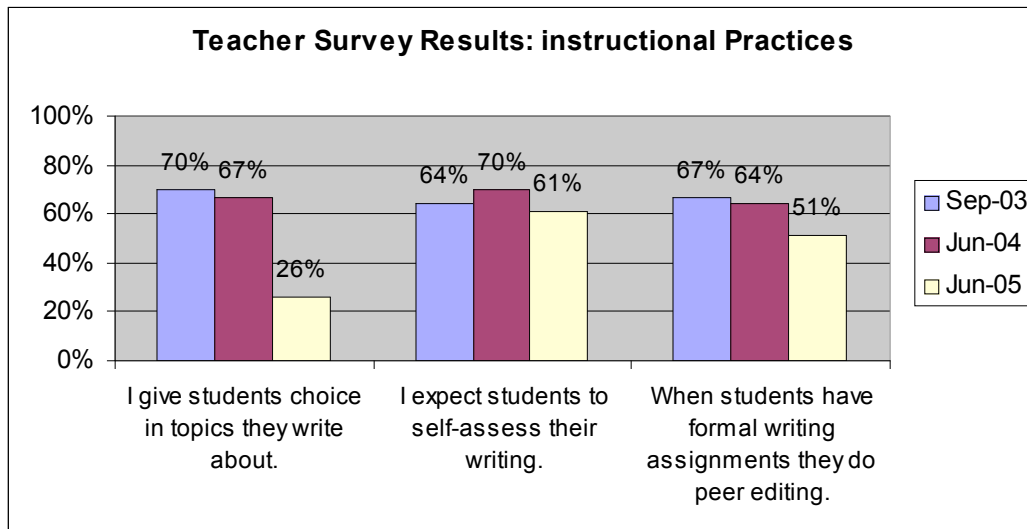


Graph 12: Teacher Survey Results: Perceived importance of iBooks. Percent of responses *EXTENSIVELY* and *A GREAT DEAL* combined

While most instructional practices reported in 2004 have been sustained, teachers are using some key strategies less often.

- An extremely large proportion of teachers (approximately 90%) continue to report using a writing process to instruction. This has not changed since the inception of the WWP.
- Similarly, almost all teachers have consistently reported, over the last three years, that:
 - their students know the criteria that will be used to assess their writing
 - they change writing instruction according to what they find out when they assess student writing
 - they integrate writing across the curriculum

- Teachers have increased their use of the BC performance standards to assess writing over the last year: 88% in 2005 chose *extensively or a great deal*, compared with 83% in 2003 and 2004; 68% chose the highest rating (*a great deal*) compared with 44% in 2003 and 2004. They have also increased the frequency of use of the performance standard templates from 47% to 62% (top two scale points.)
- Use of some key instructional practices have declined:
 - Students had more choice in writing topics before the inception of the WWP; their ability to choose their own topics continues to decline. In 2003, before implementation of the WWP, 70% of teachers indicated that students could choose their own topics *extensively* or *most of the time*. That figure declined slightly to 67% in 2004, then dramatically, to 26% in 2005. By 2005, **no** teachers chose the highest scale point. This is a puzzling and extremely concerning result.
 - The extent of self-assessment also appears to have declined, in spite of the fact that the WWP focuses strongly on the use of performance standard templates as a way of enabling self-assessment. In 2003, before the WWP, 64% of teachers indicated that they expected students to self-assess *extensively* or *a great deal*. After one year of implementation, that figure increased slightly to 70%; however, in 2005, after two years, it had declined to 61%. The decrease is more dramatic when only the top scale point (*a great deal*) is considered: increasing from 32% in 2003 to 39% in 2004; then decreasing to just 13% in 2005.
 - Peer editing has also decreased from 67% in 2003, to 64% in 2004; to 51% in 2005 (top two scale-points, *extensively* and *a great deal* combined.) A similar pattern appeared when teachers were asked how often students worked in pairs or groups when they are planning their writing (from 48% in 2003 to 56% in 2004 to 45% in 2005.)



Graph 13: Teacher Survey Results: Instructional Practices. Percent of responses *OFTEN* and *MOST OF THE TIME* combined

Teachers rarely use iBooks to engage students in dialogue and discussion in or beyond their classrooms; however, they do have students use the Internet.

- 57% of teachers have students use the Internet *extensively* or *a great deal*. All teachers have students use the Internet at least *a little*.
- A very high percent of teachers **never** have their students use their iBooks to communicate with each other (71%) or with people outside of the classroom (80%.) No teachers use the iBooks in this way more than *a little*.

Teachers are increasingly confident about using technology in their classrooms.

Teachers who were part of the WWP in 2003-2004 were asked about the extent to which they and their students improved their use of technology to support learning in 2004-2005.

- 63 percent of teachers indicated that their ability to use iBooks to improve teaching and learning had improved *extensively* or *a great deal*.
- 52% of teachers reported that students' use of iBooks to support their learning had improved *extensively* or *a great deal* over students from the previous year.
- 45 percent of teachers are using iBooks in mathematics or science *extensively* or *a great deal*; 26%, in fine arts.

Teachers' written reflections

During the final meeting and data collection session in June 2005, teachers in the Wireless Writing Program responded to four questions:

- What have you learned this year?
- What went well?
- What ongoing challenges are you dealing with?
- What is your best/worst WWP story? (optional)

Their verbatim responses are reproduced in Appendix C.

Written reflections confirmed the positive survey results.

- Teachers frequently described gains in their students' writing, as well as improvements in enthusiasm, attitude and motivation. Some specifically identified increases in risktaking and creativity.
- They noted strong improvement in students' ability to present their work, and commented on how this positively affected students' confidence and motivation.
- They often described specific students who had achieved success and gained confidence through the use of their iBooks, particularly for writing and presenting to others, both inside and outside of the class.
- Many teachers also mentioned that their own skills had improved and that they were increasingly comfortable integrating technology in their classrooms.
- They also commented positively on students' ability to access information as part of research or reading activities.
- Some teachers wrote positively about the reduction in paper use.
- Others mentioned the use of graphic organizers and templates that they or the students had developed.

Most of the challenges teachers described involved technology problems and inappropriate use of the iBooks.

- Teachers most often cited problems with technology failure or unreliability as their greatest ongoing challenge. They frequently praised the level of technology support they received, but also described the frustrations they experienced when iBooks were unavailable because they were not working or needed servicing, and when students' work was lost.
- They also expressed concern about inappropriate use of the computers, including off-task behaviour (listening to music, playing games, chatting) and inappropriate use (e.g., attempting to access inappropriate sites or engage in cyber-bullying.) While most of the problems were avoidable, teachers expressed concern about the

level of vigilance required to ensure that students were *not* using the computers inappropriately.

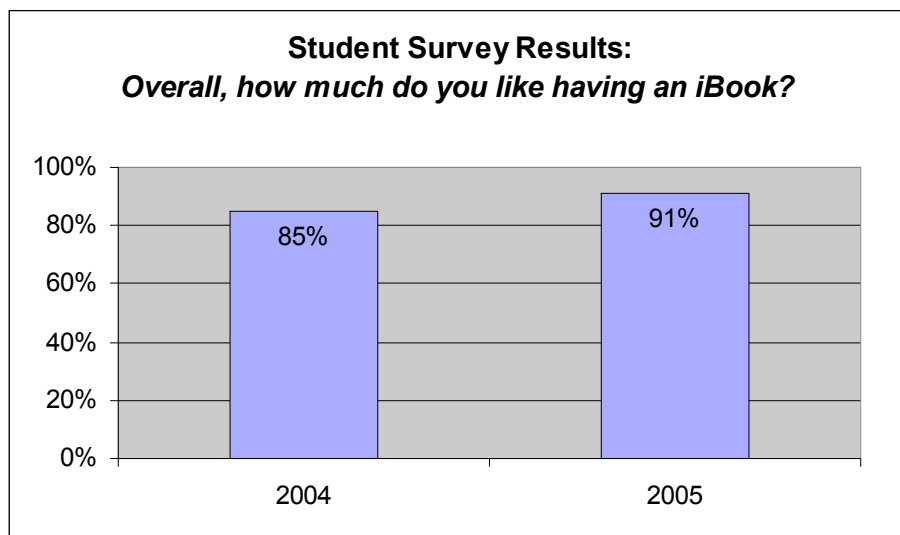
- Teaching classes where some students had 1:1 access to computers, while others did not (e.g., grade 5/6 classes) also created frustration for some teachers.
- Other issues included costs associated with lost adapters; saving to the vault; and some students' lack of care or appreciation.

STUDENT ATTITUDES AND PERCEPTIONS

Students continue to be extremely positive about their experiences in the Wireless Writing Program and most believe that it has helped to improve both their achievement and their attitudes. Detailed survey results are provided in Appendix B.

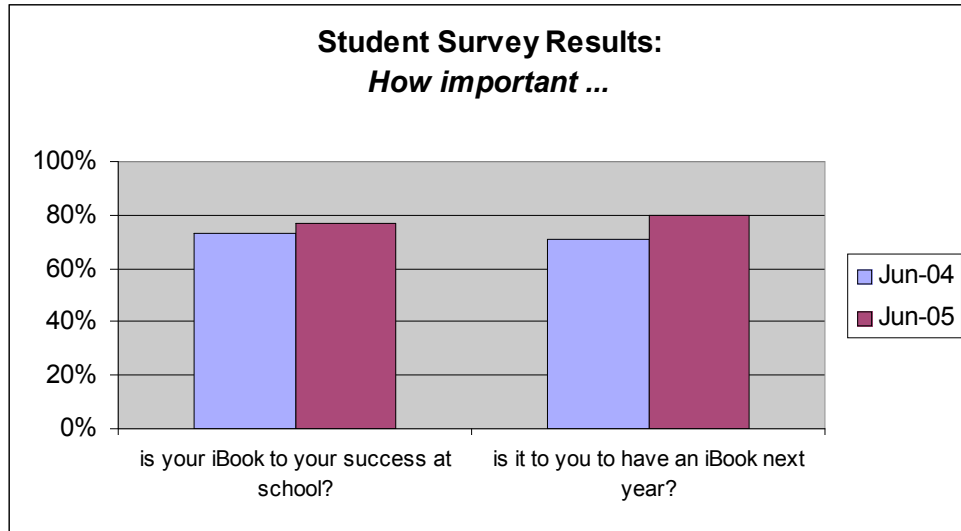
Students continue to be very positive about having iBooks.

- When asked how much they liked having iBooks, 91% of students chose the top two scale points on a four-point scale (*quite a bit* or *a lot*.) This represents a slight increase from the 85% who chose these responses in 2004.



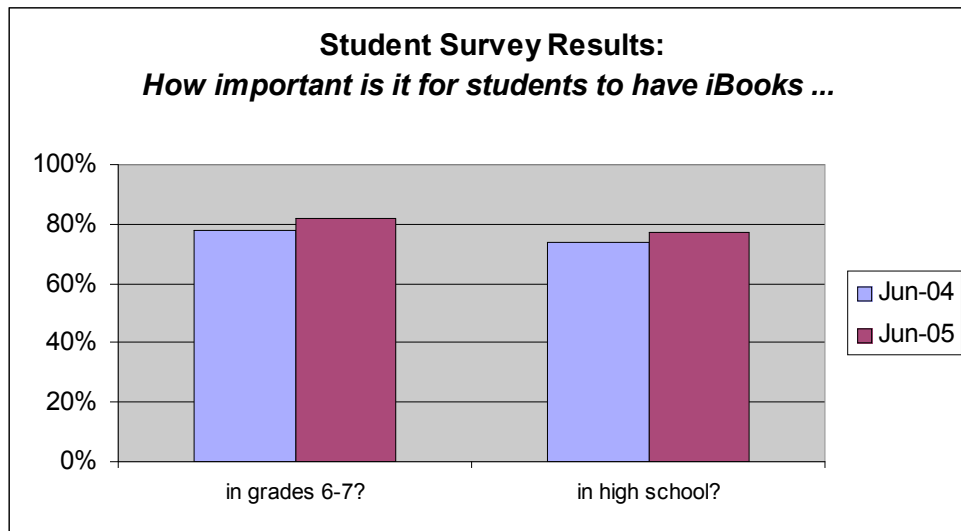
Graph 14: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

- Most students strongly believe that their iBooks contribute to their success in school and report that it is very important that they continue to have iBooks in the coming school year. In both cases, there is a slight increase in the percent of students who chose the top two scale points in 2005 compared with 2004: 77% to 73%, and 80% to 71% respectively.



Graph 15: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

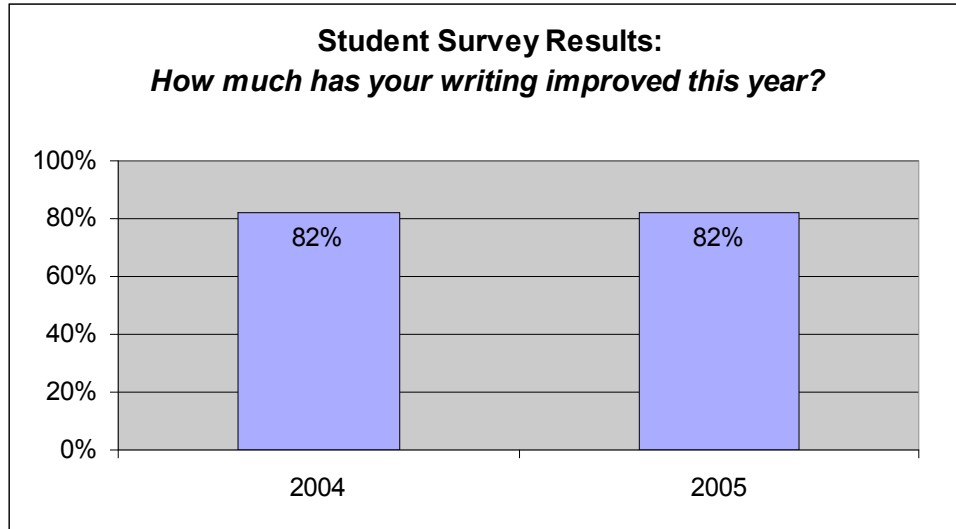
- Students continue to strongly endorse the use of iBooks in both grades 6/7 (78% in 2004; 82% in 2005) and in high school (74% in 2004; 77% in 2005.)



Graph 16: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

Students believe that their writing has improved, and credit the use of iBooks with a large part of that improvement.

- 82% of students in both 2004 and 2005 believed their writing improved *quite a bit* or *a lot*.



Graph 17: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

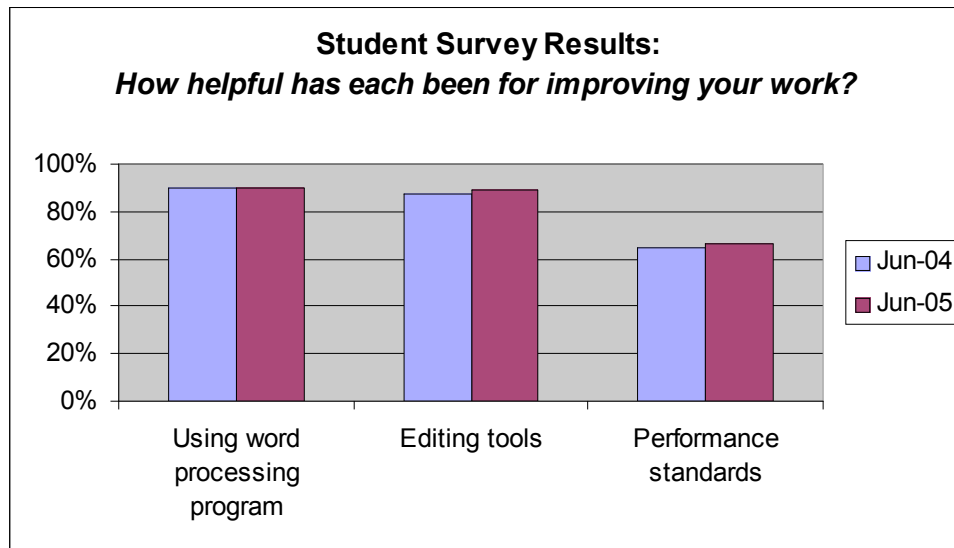
- When asked to identify how much various aspects of their writing had improved, students ranked *organization* first, with 1/3 of students believing this aspect had improved *a lot*, and a further 46% choosing *quite a bit*. Their perceptions are consistent with results of both the district writing assessment and the teacher survey.

Results below show the percent of students in 2004 and 2005 that chose one of the top two scale points to describe improvements in:

- Organization (75% in 2004; 79% in 2005)
 - Style (71% in 2004; 72% in 2005)
 - Meaning (70% in 2004; 67% in 2005)
 - Conventions (66% in 2004; 64% in 2005)
- Students report that their iBooks are helpful for:
 - planning writing or other assignments (65% in 2004; 74% in 2005)
 - finding information (92% in 2004; 89% in 2005)
 - drafting a piece of writing (76% in 2004; 80% in 2005)
 - editing and revising their writing (85% in 2004; 84% in 2005)
 - keeping their work organized (85% in 2004; 87% in 2005)

Students continue to see using a word processing program and editing tools as very helpful in improving their work; they are also positive about the impact of the Performance Standards.

- 90% of students in both 2004 and 2005 reported that a word processing program (Word) helped them *quite a bit* or *a lot* in improving their work; they reported the same results for the use of editing tools.
- Approximately two out of three students believe that using the BC performance standards has improved their work.

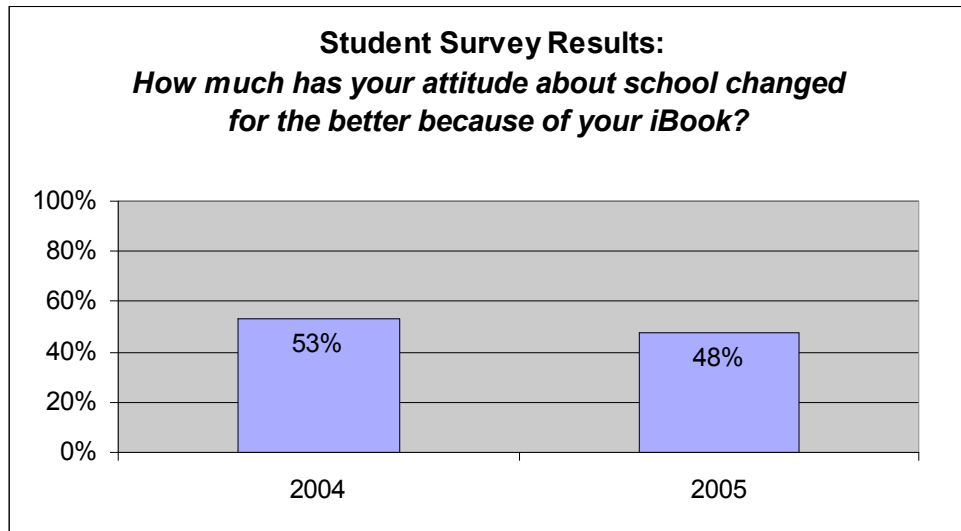


Graph 18: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

- Most students indicated that the Internet had been helpful in improving their work (89% in 2004; 87% in 2005); they also believe PowerPoint has had a positive impact (73% in 2004; 72% in 2005.)
- Approximately half of students reported that using Inspiration has been helpful (41% in 2004; 49% in 2005); results for iMovie or iPhoto were similar (50% in 2004; 42% in 2005.)

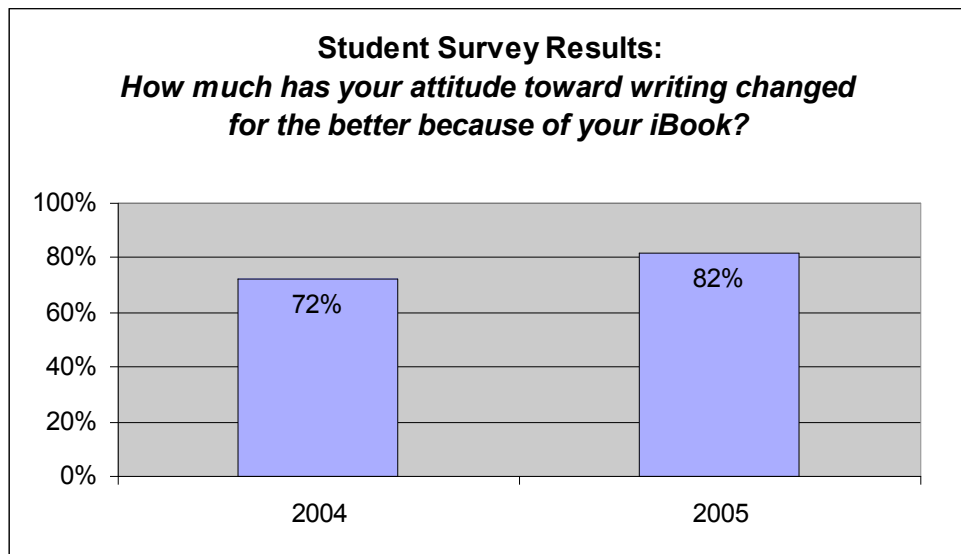
Students report that their iBooks have improved their attitude toward school and toward writing.

- Approximately half of students credit iBooks with improvements in their attitudes toward school (53% in 2004; 48% in 2005.)



Graph 19: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

- A growing percent of students attribute changes in their attitudes toward writing to their use of iBooks. 72% in 2004 chose *quite a bit* or *a lot* to describe this change; this increased to 82% in 2005.



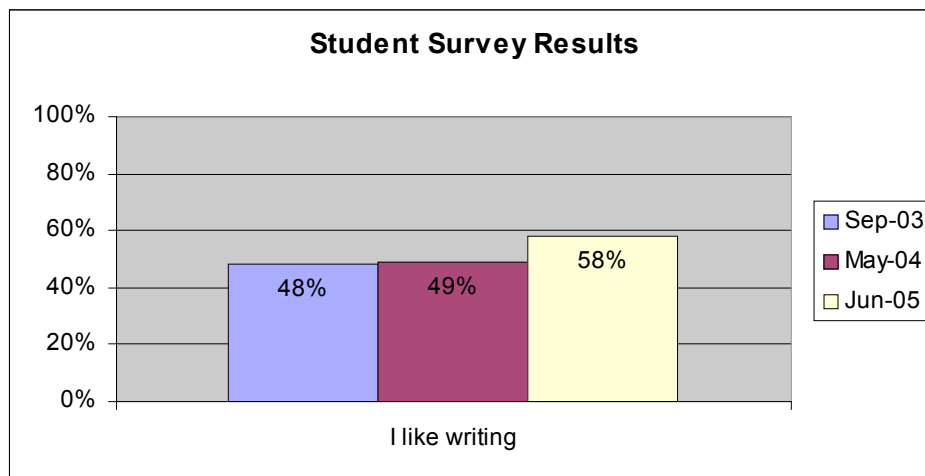
Graph 20: Student Survey Results: Percent of responses *QUITE A BIT* and *A LOT* combined

Student writing attitudes and strategies

Since 2003, before the implementation of the Wireless Writing Program, students have been surveyed annually about their attitudes toward writing, and the strategies they use. Their attitudes have shown improvement over the three years of the survey; they also report increased use of editing strategies. Results are based on a five-point scale (*never, once in a while, sometimes, often, and most of the time.*) Percentages in this section reflect the percent of students who chose the top two scale points, *often* and *most of the time*.

Students report increasingly positive attitudes toward writing and perceptions of their own writing ability.

- Before implementation of the WWP, approximately half of students reported that they liked writing; in 2005, this increased to 58%.

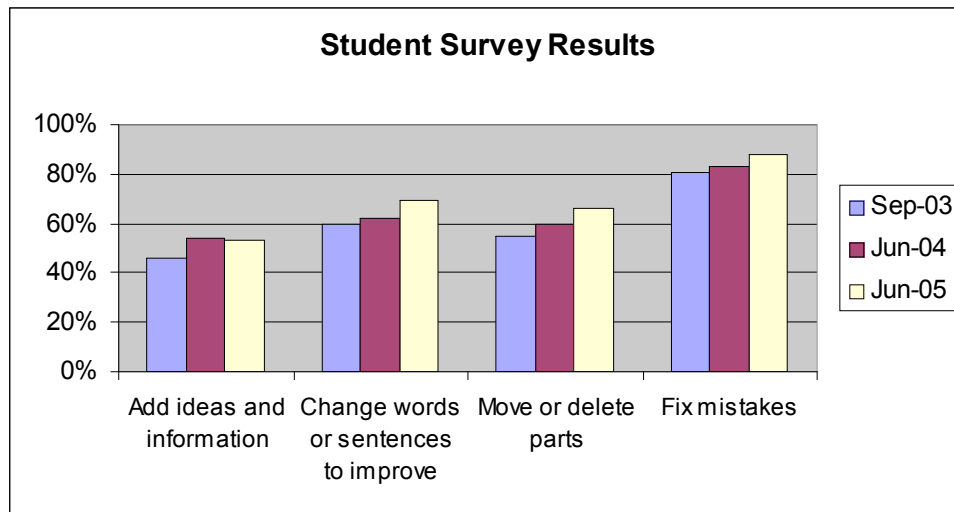


Graph 21: Student Survey Results: Percent of responses *OFTEN* and *MOST OF THE TIME* combined

- The percent of students who believe they are good writers has increased from 48% in 2003 to 56% in 2005.

Student use of editing strategies has increased.

- Since the implementation of the WWP, students' reported use of editing strategies, *often* or *most of the time* has steadily increased:
 - adding ideas and information (46% to 54%)
 - moving or deleting parts (55% to 66%)
 - changing words or sentences (60% to 69%)
 - fixing mistakes (81% to 88%)



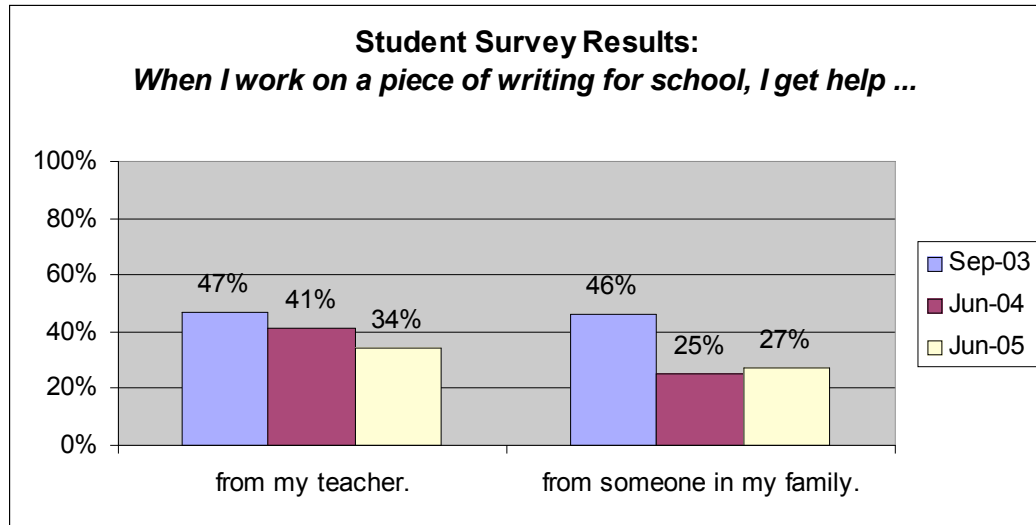
Graph 22: Student Survey Results: Changes in Editing Strategies: Percent of responses *OFTEN* and *MOST OF THE TIME* combined

Students' reported use of prewriting strategies and awareness of audience has not changed since 2003.

- Students continue to report relatively low levels of prewriting and collaboration. While these results declined substantially in 2004, they are currently very similar to baseline results reported in 2003 before the WWP began:
 - make a list, web or outline to get and organize ideas (30% in 2003; 23% in 2004; 35% in 2005.)
 - get help or ideas from other students (36% in 2003; 24% in 2004; 35% in 2005.)
- Results for awareness of audience show a similar a pattern: (41% in 2003; 37% in 2004; 45% in 2005.)

Students are less likely to report getting help from their teachers or family members.

- Since implementation of the WWP, students are increasingly less likely to indicate that they frequently get help with a piece of writing from:
 - teachers (47% in 2003; 41% in 2004; 34% in 2005)
 - family members (46% in 2003; 25% in 2004; 27% in 2005)



Graph 23. Student Survey Results: Percent of responses *OFTEN* and *MOST OF THE TIME* combined

Student survey results appear unaffected by the number of years in the Wireless Writing Program.

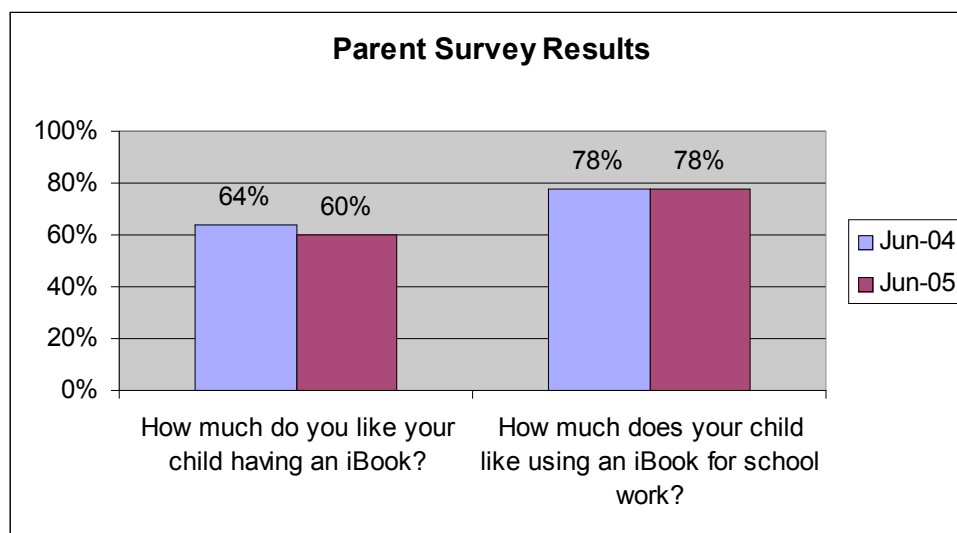
- Results for students who were in the program for 1 year were extremely similar to those for students in their second year in the program except in the case of editing strategies where students in their second year, most of whom are in grade 7, reported more frequently:
 - Adding new ideas or information (1 year: 51%; 2 years: 67%)
 - Changing words and sentences (66% and 71% respectively)
 - Moving or deleting parts (60% to 72%)

PARENT VIEWS

Detailed results of the parent survey are provided in Appendix B. Parents continue to endorse the Wireless Writing Program, and attribute gains in their children's achievement to their participation in the program. In 2005, parents began responding to the survey questions electronically; the number of parents who submitted survey results was much smaller than in 2004 when the survey was paper-based. Results are thus less dependable, and comparisons between the two years should be viewed cautiously.

Most parents endorse the WWP and report that their children view the experience positively.

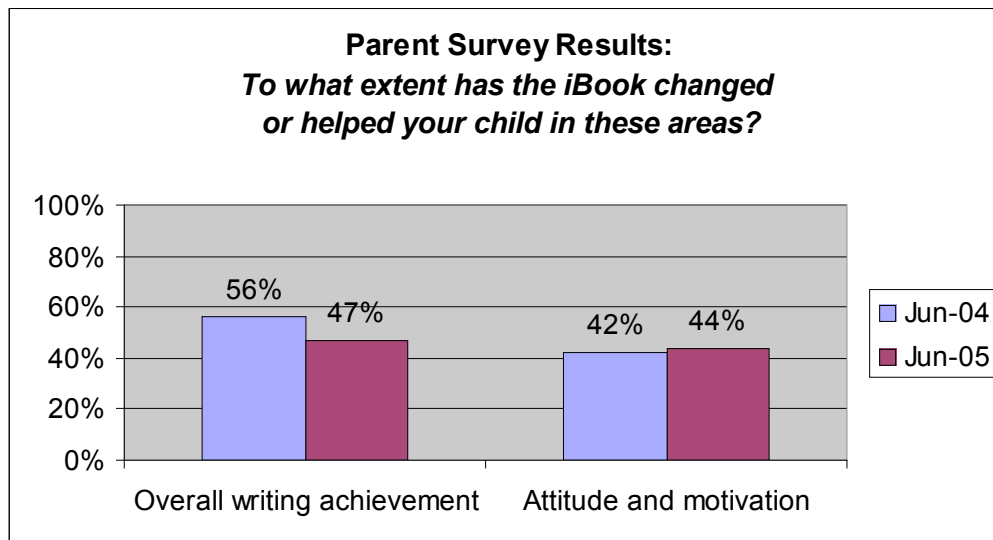
- In 2005, 90% of parents reported that they liked their children having iBook at least *somewhat* (mid-point of a five-point scale.) 60% chose *extensively* or a *great deal* to describe their view of the program.
- 78% of parents believe their children like having iBook *extensively* or a *great deal*; when those who responded *somewhat* are included, the total increases to over 90%.



Graph 24: Parent Survey Results: Attitude toward WWP. Percent of responses EXTENSIVELY and A GREAT DEAL combined

Parents believe that using iBooks has improved their children's writing achievement as well as their attitude and motivation.

- 80% of parents in 2005 reported that both their children's achievement and attitude had improved at least *somewhat*. When just the top two scale points were considered, 47% believed their children's writing achievement had improved extensively or a great deal; 44% saw a similar improvement in attitude and motivation.



Graph 25: Parent Survey Results: Perceived Impact of WWP. Percent of responses EXTENSIVELY and A GREAT DEAL combined

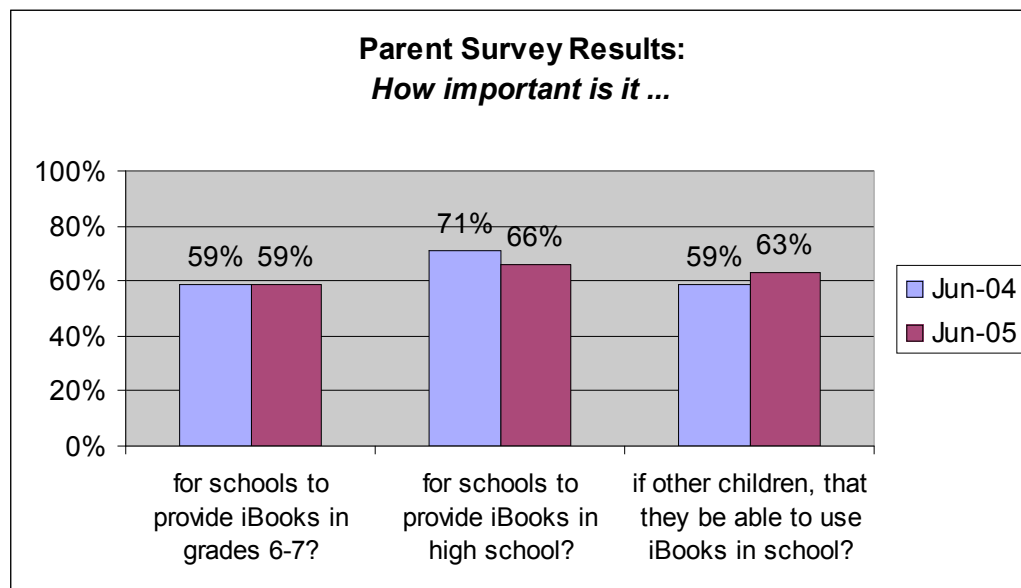
- Parents see the iBooks as extremely helpful for editing and presenting work. Over 85% felt computers helped at least *somewhat* with presentation and editing; nearly two-thirds chose *extensively* or *a great deal*.
- Approximately 80% of parents reported that the iBooks helped improve their children's overall achievement at least *somewhat*; nearly one-third saw this improvement as *extensive* or *a great deal*. Similar results appeared for:
 - organizing and keeping track of work
 - work habits
- over 80% believe their children's confidence has improved at least *somewhat*, due to using iBooks; slightly over half (53%) described this change as *extensive* or *a great deal*.

Parents see dramatic improvement in their children's computing skills.

- 95 % of parents believe their children's computer skills have improved at least somewhat; 75% chose one of the top two scale-points, *extensively* or *a great deal*.

Parents continue to endorse the Wireless Writing Program for their own and other students.

- Approximately 80 % of parents continue to believe that it is at least *somewhat* important to provide iBooks to students in grades 6/7; approximately 60% answered *extensively* or *a great deal*. These results are similar to those from 2004.
- Results are similar, but slightly higher, for providing iBooks in high school, with 87% indicating it is at least *somewhat* important; 66% answering *extensively* or *a great deal*.
- Most parents (75%) who have other children reported that it is at least *somewhat* important that those children be able to use iBooks in school; 63% chose *extensively* or *a great deal*.



**Graph 26: Parent Survey Results: Percent of responses
EXTENSIVELY and *A GREAT DEAL* combined**