ATA Research
2018

Research Study of Digital Reporting, Assessment and Portfolio Tools: Results Summary

The Alberta Teachers' Association

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ISBN 978-1-927074-63-3

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Preface

In Alberta, online reporting and digital assessment tools have become widely used, and increasingly standardized, across school districts over the past decade. Unfortunately, Alberta's teachers have rarely been involved in the selection of these systems, despite their direct impact on instruction and assessment practices, on teachers' work lives and on the shifting parental expectations regarding online reporting. Digital reporting tools are those tools used to prepare student progress reports, such as PowerSchool, Iris, Maplewood, TeacherLogic, School Zone and Brightspace. Digital assessment tools are those tools used in the diagnostic, adaptive and real-time assessment of student learning, such as Mathletics, SuccessMaker, DreamBox Learning Math and Raz-Kids Reading.

Previous research studies on the impact of digital reporting and assessment tools have been conducted by the Alberta Teachers' Association (ATA), in collaboration with University of Alberta researchers, in 2008, 2011 and 2014. Each of these studies carefully charts a set of consistent and amplifying trends and patterns that show both the positive and the negative impacts (and diminishing value) of digital reporting tools and digital assessment tools.

This latest 2017 research adds an additional dimension of study in the form of an environmental scan of emerging digital portfolio tools. For the purpose of this study, *digital portfolios* refers to software or platforms (such as Google Apps for Education, FreshGrade, ClassDojo and Seesaw) that track, document, assess and report student activities within the learning environment. Digital portfolio tools are also converging the assessment, reporting and monitoring (behaviour and wellness) functions into one virtual space.

Increased workload, the level of consultation about the purchase and use of tools, and the flexibility and value of the platforms continue to be Alberta teachers' top concerns about digital reporting, assessment and portfolio tools. The key findings outlined in this report also speak to a growing tension, as the digital tools being investigated were deemed to have the potential to support student learning while also narrowing that learning and, consequently, impeding teachers' professional judgment and autonomy.

Mills (1951) noted that "schoolteachers . . . are the economic proletarians of the professions." Since Mills offered up this prescient conclusion decades ago, we have seen diminishing workplace flexibility and teacher control over conditions of professional practice. This is not unique to the profession of teaching, as across health care, policing, education and business administration, external mechanisms of control have been facilitated by technological advances such as data analytics and surveillance tools—all supported by the growth of performance management systems, hierarchy and standardization.

A growing body of research points to the increasing gap between government and school authority policy rhetoric that claims support of teacher professionalism, autonomy and leadership and the experiences of Alberta teachers, who increasingly live their lives as "professional employees" (Smaller et al 2005, 30) held to account by managerial models of school governance and inappropriate performance measures that do little to build capacity or confidence and trust (public assurance) in civic institutions. Further, given teachers' current paradoxical role as "professional employees," the aspiration of Alberta teachers to be seen as professionals "is continually in jeopardy because of organizational decisions made outside the influence of classroom teachers. Educational practices such as standardized curricula, testing and reporting, bigger classroom sizes, and increased administrative duties, just to name a few, have an enormous impact upon the immediate workspace of teachers" (p 42).

Alberta teachers acknowledge that technology integration presents the education system with both significant opportunities and significant challenges. Assessing the impact of emerging technologies on teachers and their conditions of practice is a research and advocacy priority for the Association. As this report demonstrates, understanding the value and impact of online reporting tools and learning analytic instruments is critical to (re)shaping the future of teaching and learning.

This research activity was led by Philip McRae, associate coordinator, research, with the ATA, and an evaluative research team from the University of Alberta's Faculty of Extension directed by Jason Daniels. It was supported by Ryan Layton (field member), Cathy Adams (University of Alberta), Sherry Bennett (Alberta Assessment Consortium) and Lindsay Yakimyshyn (ATA). The collective attention, support and analysis provided by all these people is greatly appreciated.

The Association will continue to research and advocate for the conditions of professional practice required to create teaching and learning environments that advance the goal of public education: to educate all Alberta children well.

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Mills, C W. 1951. *White Collar: The American Middle Classes*. New York: Oxford University Press.

Smaller, H, P Tarc, F Antonelli, R Clark, D Hart and D Livingstone. 2005. *Canadian Teachers' Learning Practices and Workload Issues: Results from a National Teacher Survey and Follow-Up Focus Groups.* SSHRC-funded New Approaches to Life-Long Learning Research Network and the Canadian Teachers' Federation. http://wall.oise.utoronto.ca/resources/Smaller_Clark_Teachers_Survey_Jun2005.pdf (accessed September 11, 2018).

Dennis E Theobald
Executive Secretary

Background

New technological advances are frequently heralded as revolutionary. Rarely, however, does the hype match the real-world impact. In fact, technology used in inappropriate ways might even have a deleterious impact. With the growing presence of technologies in the classroom—specifically, the emergence of digital reporting, assessment and portfolio tools—consideration must be given to the impacts of technology on teaching and learning.

Digital technologies are ubiquitous in the lives of many teachers and students. Schools are adopting and implementing new technologies with promises of revolutionizing the classroom, individualizing the learning process, and improving assessment accuracy and efficiency. While digital reporting, assessment and portfolio tools hold great promise, many questions remain regarding their overall impact and the role they can and should play in the classroom. Of specific concern, the role of the teacher seems to be increasingly mediated through the use of third-party software. Additionally, in many cases, teachers have little influence with respect to either the selection of the systems that are increasingly being mandated or the content of those systems.

Further, because computer-based systems can measure some competencies better than others, the use of digital reporting, assessment and portfolio tools can shift the focus in the classroom toward the competencies that are easier to measure. Therefore, adopting these systems can lead to an overly reductionist approach to learning.

To investigate questions related to the use of digital reporting, assessment and portfolio tools in Alberta classrooms, the Alberta Teachers' Association, in collaboration with researchers from the University of Alberta, conducted a survey of Alberta teachers and school leaders in 2017. The survey instrument was designed to gather information on how the use of these tools is affecting the workload of teachers and principals, as well as student learning and overall assessment practices.

This is the fourth study on this important issue that the Association has undertaken.

Method

INSTRUMENT

An online survey (see Appendix B) was sent to teachers and school leaders throughout the province. In total, 644 participants completed the survey, which produced both quantitative and qualitative data.

LIMITATIONS

While the size of the survey sample was adequate for identifying common themes, the respondents were self-selected. Because of this self-selection, it is difficult to know with any certainty that the results are representative of all Alberta teachers and school leaders.

Key Findings

The survey results indicate the benefits of digital reporting, assessment and portfolio tools (for example, improved communication) but also the drawbacks (for example, increases in student anxiety and in expectations placed on teachers). The key findings outlined below speak to this tension, as digital tools have the potential to support student learning but also to narrow that learning and impede teachers' professional judgment and autonomy. As many survey participants were currently using or implementing digital reporting (88 per cent), assessment (43 per cent) and portfolio (25 per cent) tools, the results provide insight into how such tools are affecting teaching and learning in Alberta.

TEACHERS' WORKLOAD AND PROFESSIONAL AUTONOMY

Workload increase, the level of consultation about the purchase and use of tools, and the flexibility of the tools were teachers' top concerns about digital reporting, assessment and portfolio tools (Figure 44).

Digital Reporting Tools

- Teachers reported that digital reporting tools increased teacher workload, parental expectations regarding the frequency of reporting, and the amount of time required to track and report student progress (Figures 19, 20 and 21).
- The majority of respondents had no input at all in choosing and implementing the digital reporting tool they were using, and stated that the use of the tool was mandated (Figures 17 and 18).

Digital Assessment Tools

- Teachers reported that digital assessment tools neither increased nor decreased the teaching workload (Figure 32).
- The majority of respondents had input into choosing and implementing the digital assessment tools they were using, and stated that the use of the tool was completely optional (Figures 30 and 31).

Digital Portfolio Tools

- Responses were evenly distributed between those who believed that digital portfolio tools increased the workload and those who believed that they decreased the workload (Figure 40).
- About half of those currently using digital portfolio tools had a sizable level of input into choosing and implementing the tools, and more than half stated that the use of the tool was completely optional (Figures 38 and 39).

INSTRUCTION AND LEARNING

Slightly more than half of the respondents indicated that they were confident that digital assessment tools were improving their students' learning; they were slightly less confident about digital portfolio and digital reporting tools improving their students' learning or behaviour (Figure 9). At the same time, about half of the respondents indicated that digital reporting tools provided no, or very little, improvement to the level of instruction and assessment in the classroom (Figure 15).

About two-thirds of the participants declared the subject area content or skills in digital assessment and digital portfolio tools to be compatible with Alberta programs of study (Figures 34 and 43). While participants were somewhat divided as to whether their students' digital skills had affected their performance on digital assessments positively or negatively, they were more likely to believe that the implementation of digitally based resources and the government's decision to implement digital assessment would affect student learning negatively (Figure 46).

Digital Reporting Tools

- The perceived positive impacts of digital reporting tools included better and faster communication with students and parents to track progress, attendance and missing assignments (Table 1).
- The perceived negative impacts included increased student stress and anxiety linked to concern about marks, as well as potential parent–teacher and student–teacher miscommunication (Table 2).

Digital Assessment Tools

- The perceived positive impacts of digital assessment tools included student engagement and motivation, supplemental practice and learning opportunities, and easier and faster evaluation and feedback (Table 4).
- The perceived negative impacts (cited by very few) included lack of use or improper use of the tools, as well as issues with the technology (Table 5).

Digital Portfolio Tools

- The perceived positive impacts of digital portfolio tools included improved communication with parents and the facilitation of student work and learning (Table 7).
- The perceived negative impacts (cited by very few) included improper use, increased workload and lack of access for some students (Table 8).

Results

DEMOGRAPHICS

About one-third of the respondents (29 per cent) attended the Calgary City Teachers' Convention, and about one-quarter (23 per cent) attended the Greater Edmonton Teachers' Convention. Most of the respondents who selected Greater Edmonton (94 per cent) taught in Edmonton, while the balance (6 per cent) taught in Fort McMurray. North Central was the third most popular convention district among respondents (16 per cent), followed by Palliser District (7 per cent), Central Alberta (6 per cent) and South Western (5 per cent). Full details are shown in Figure 1.

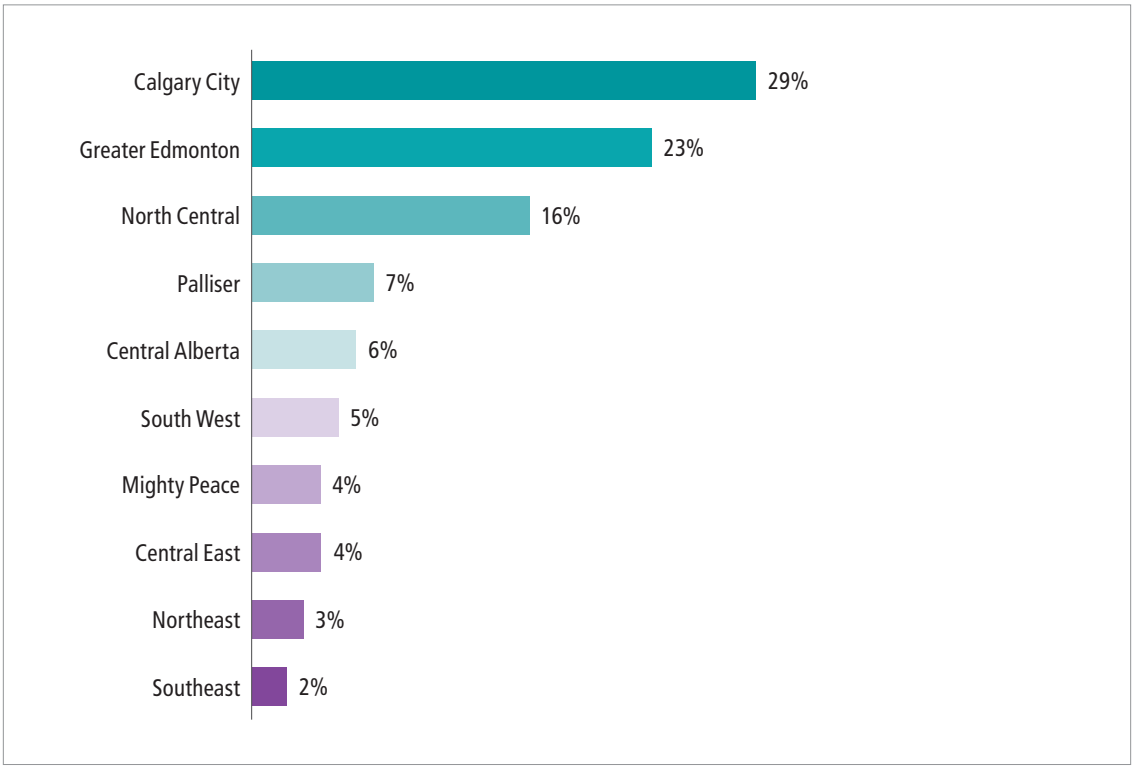

FIGURE 1. Teachers' convention attended (*n* = 606).

The majority of respondents (87 per cent) had at least five years of teaching experience. More than one-third (37 per cent) had between 5 and 14 years of experience, and a slightly larger number (42 per cent) had between 15 and 29 years of experience. Figure 2 shows the distribution of participants by years of teaching experience.

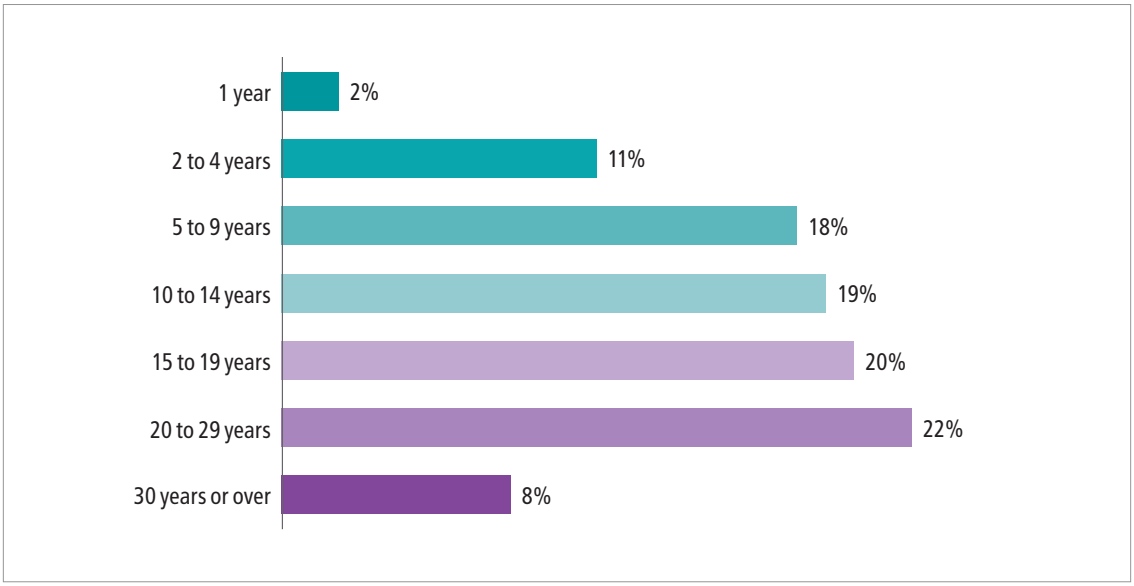

FIGURE 2. Years of teaching experience (*n* = 558).

More than nine in ten survey participants (92 per cent) indicated that their employment status was full-time. See Figure 3.

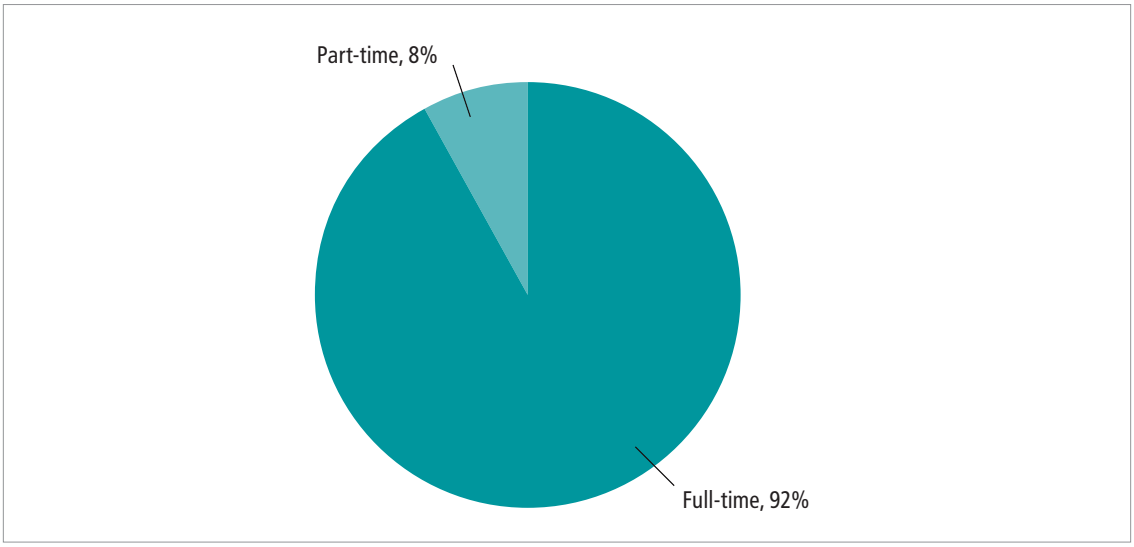

FIGURE 3. Employment status (*n* = 628).

About three-quarters of the respondents (74 per cent) selected "classroom teacher" as their current designation. The next most frequently selected options were "combined classroom and administrative duties" (9 per cent) and "school administrator only" (5 per cent). The current designations selected by participants are represented in Figure 4.[1]

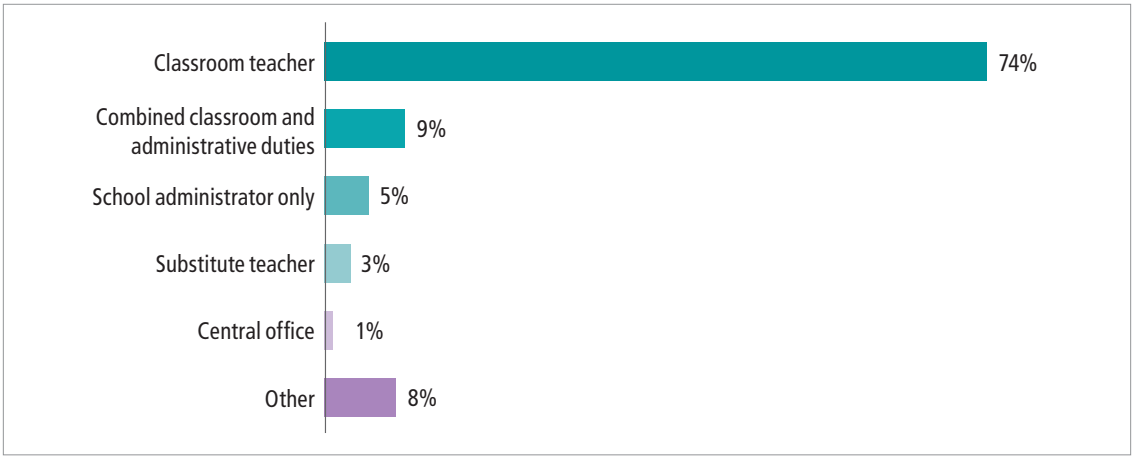

FIGURE 4. Current designation (*n* = 638).

The vast majority of the respondents were between 31 and 55 years old (75 per cent), with 41–45 (18 per cent) being the most frequently selected age range. Figure 5 shows the full age distribution.

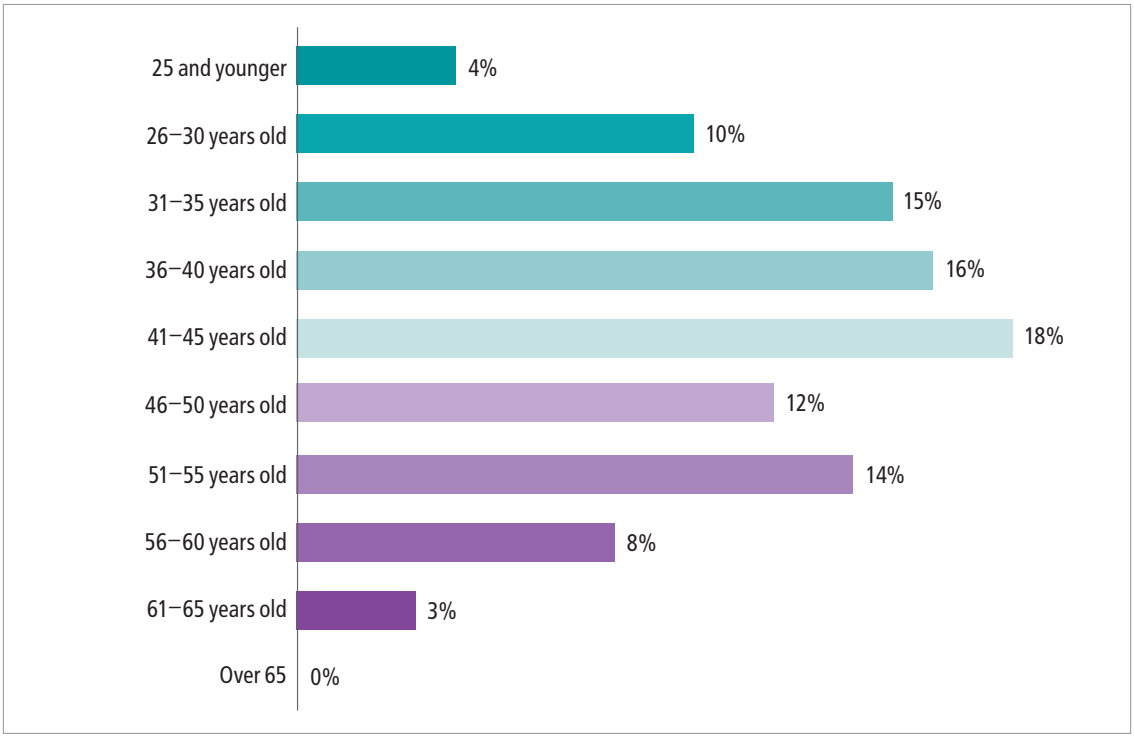

FIGURE 5. Age (*n* = 625).

Three-quarters of the survey participants were female; the remaining participants were male. A negligible number of respondents (0.4 per cent) selected "other." See Figure 6.

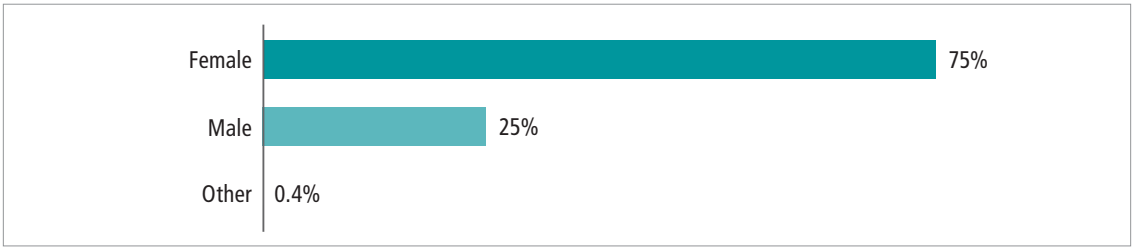

FIGURE 6. Gender (*n* = 633).

Nearly half of the respondents (47 per cent) indicated that they worked in a large urban school, while nearly one-third (31 per cent) stated that they worked in a small urban school.[2] Figure 7 shows the types of schools in which participants worked.

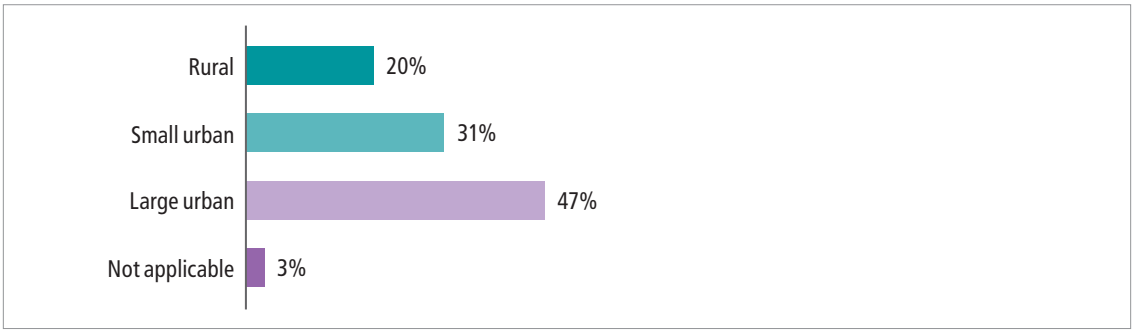

FIGURE 7. Type of school (*n* = 640).

Nearly one-third of the survey participants (30 per cent) were teaching a combination of grades at the time they completed the survey. An equal number of respondents (19 per cent) were teaching Grades 1–3 and Grades 10–12. Figure 8 shows the distribution for the current assignments selected by participants.[3]

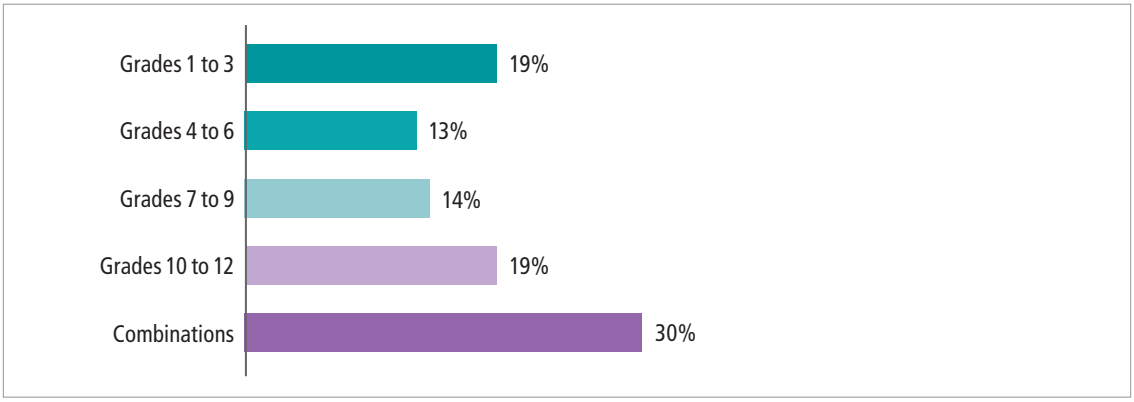

FIGURE 8. Current assignment (*n* = 635).

GENERAL STUDENT REPORTING AND ASSESSMENT REQUIREMENTS

Slightly more than half of the respondents (57 per cent) indicated that they were confident that digital assessment tools were improving their students' learning. Participants were less confident as to whether digital portfolio tools were improving their students' learning or behaviour (48 per cent reported confidence) and whether digital reporting tools were improving their students' learning (42 per cent reported confidence). Respondents' confidence levels related to digital reporting, assessment and portfolio tools are shown in Figure 9.

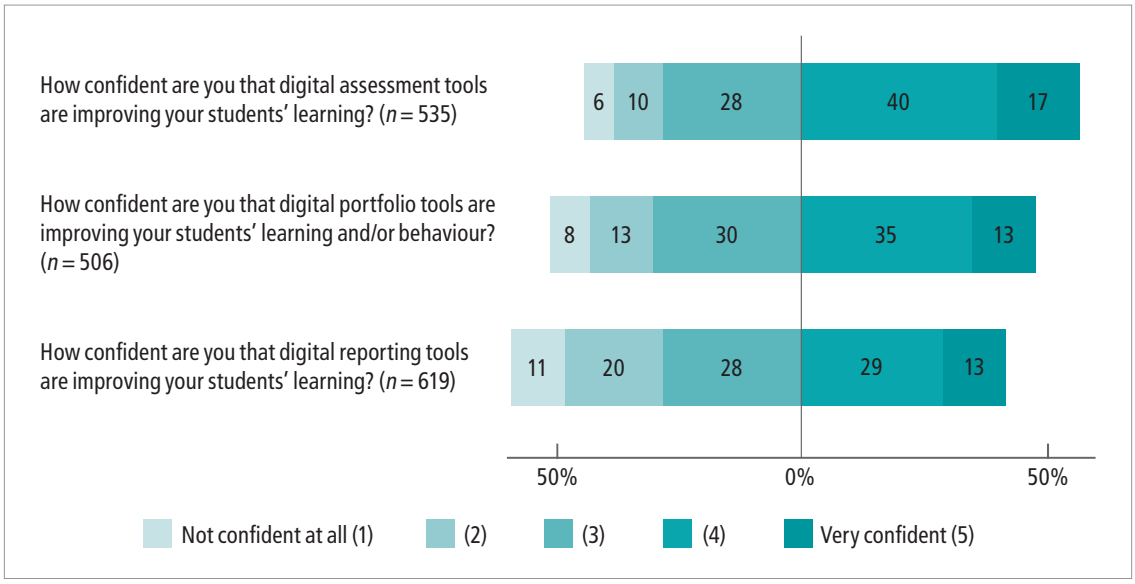

FIGURE 9. Confidence in digital reporting, assessment and portfolio tools improving student learning.

According to participants, the initiatives that had the most notable impact on student learning were student-led conferences (56 per cent); school policies and expectations to track and report student progress to parents (52 per cent); digital reporting, assessment and portfolio tools (46 per cent); district policies and expectations to track and report student progress to parents (44 per cent); and diploma examinations (41 per cent). Provincial achievement testing (24 per cent) and provincial student learning assessments (17 per cent), participants indicated, had the lowest impact. The perceived impact of specific initiatives on student learning is represented in Figure 10.

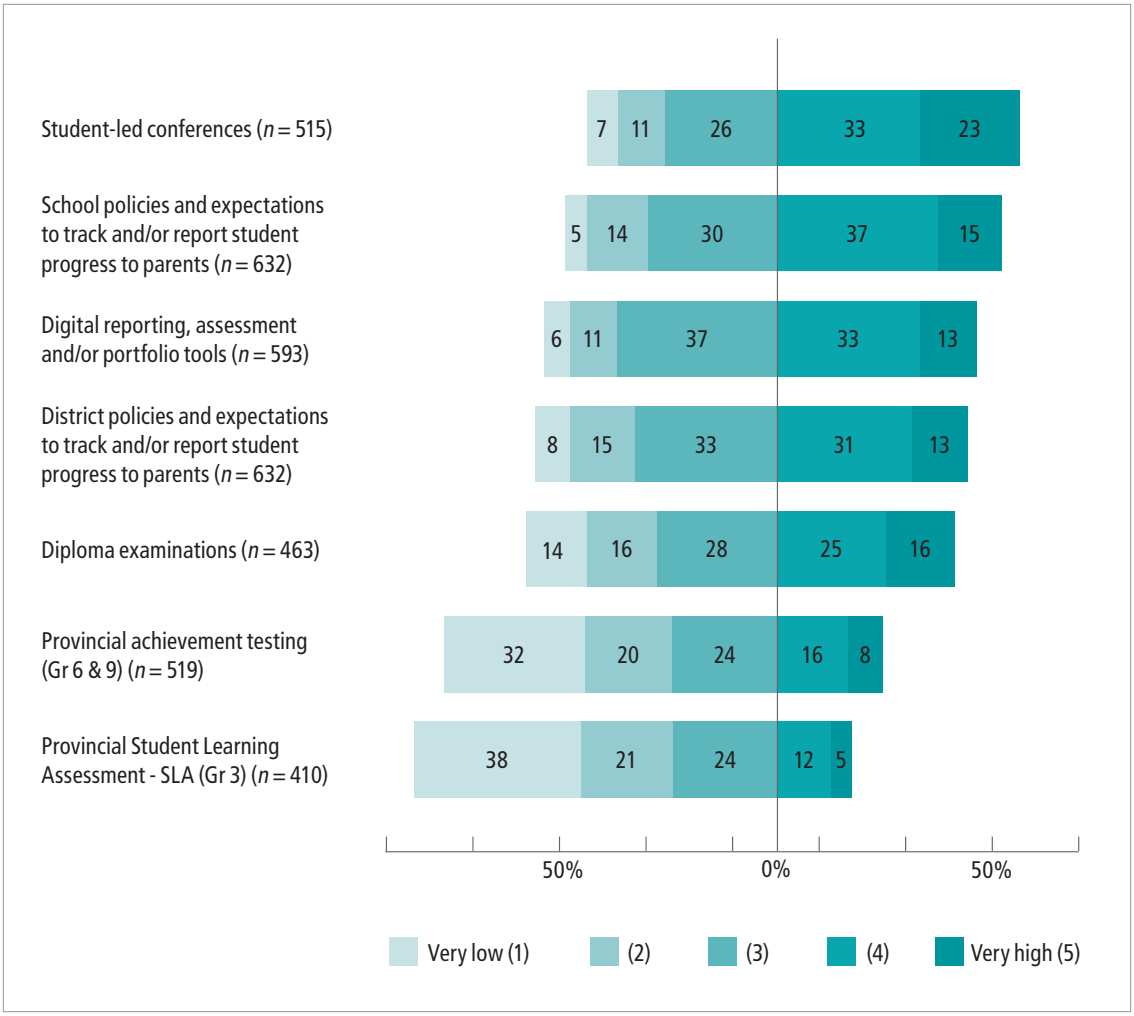

FIGURE 10. Impact of specific initiatives on student learning.

In considering specific reporting and assessment requirements, participants connected preparing report cards (71 per cent) and completing individual program plans (IPPs) (61 per cent) to high levels of stress. Developing classroom-based assessments was the least stressful requirement noted. Figure 11 represents participants' stress connected to reporting and assessment requirements.

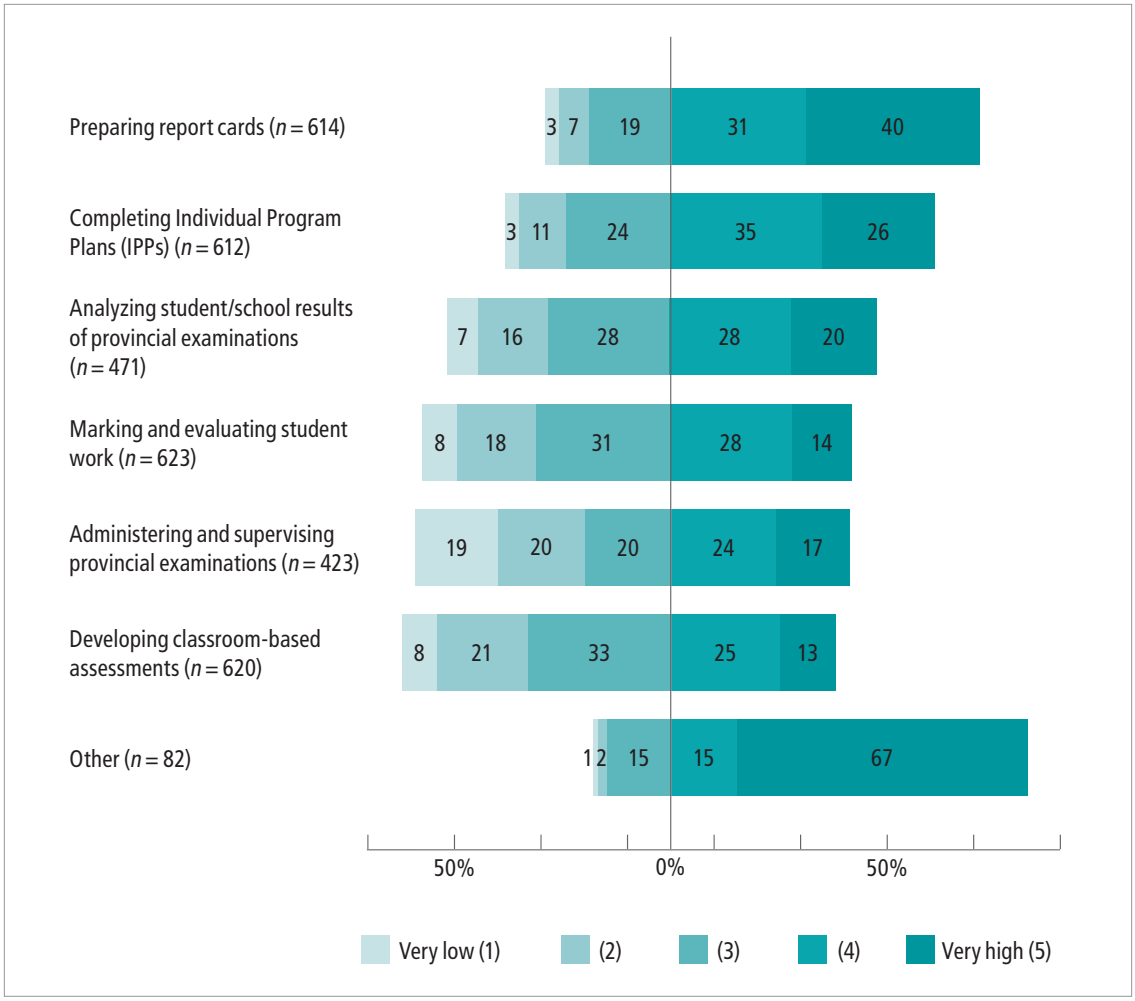

FIGURE 11. Level of stress experienced while following reporting and assessment requirements.

When asked to specify other reporting and assessment requirements that connected to a high level of stress, survey participants frequently noted the number of exams and assessments required, the level of interaction with parents, issues with the technology or lack of proper training, the increased demand for data input and tracking, the increased demand for comments and documentation, and increased administrative work.[4]

DIGITAL REPORTING TOOLS

Quantitative Data

Most survey participants (88 per cent) were currently using or implementing digital reporting tools. While some respondents were planning to use such tools, others were either not sure or not planning to use or implement digital reporting tools in the future. See Figure 12 for full details.

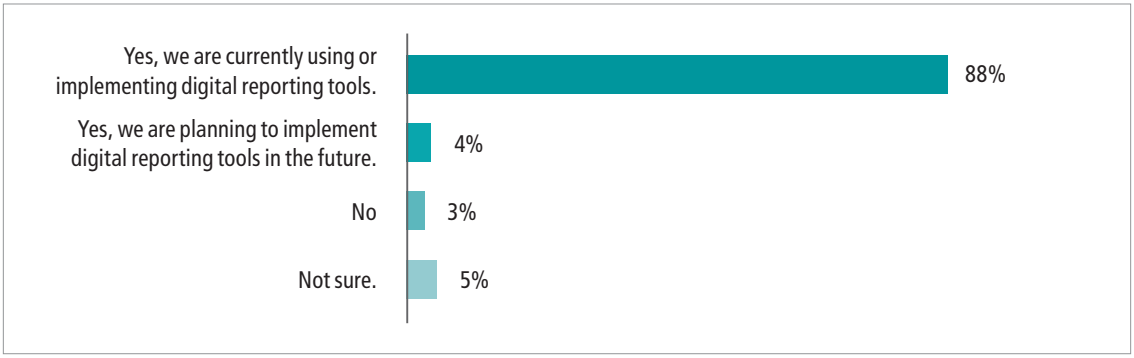

FIGURE 12. Current and planned use of digital reporting tools (*n* = 640).

About half of the respondents who reported using or implementing digital reporting tools were employing PowerSchool (51 per cent) to prepare student reports or communicate student progress. Other tools frequently cited by participants were TeacherLogic/SIRS (13 per cent), Maplewood (10 per cent) and Iris (8 per cent). Figure 13 shows the digital reporting tools the respondents employed.

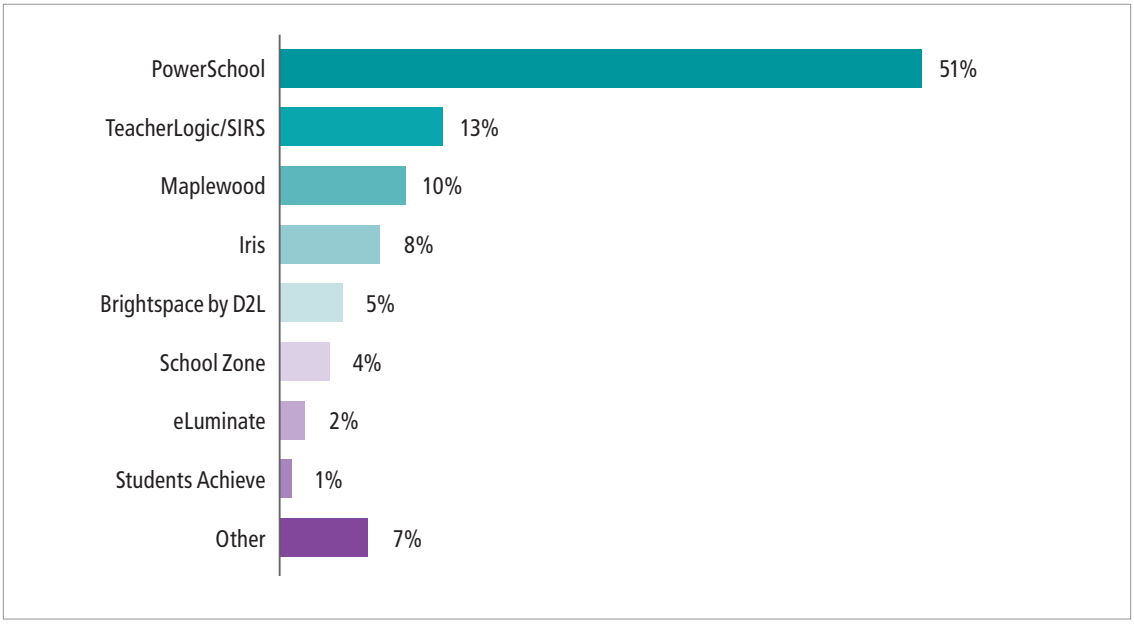

FIGURE 13. Digital reporting tools primarily used (respondents currently using digital reporting, *n* = 566).

Tools noted by participants in the "other" category included eLuminate and Genius.[5]

Respondents who were planning to implement digital reporting tools selected PowerSchool more frequently (44 per cent) than any other of the listed tools. The second most popular selection was Iris (26 per cent). The tools respondents were planning to use are shown in Figure 14.

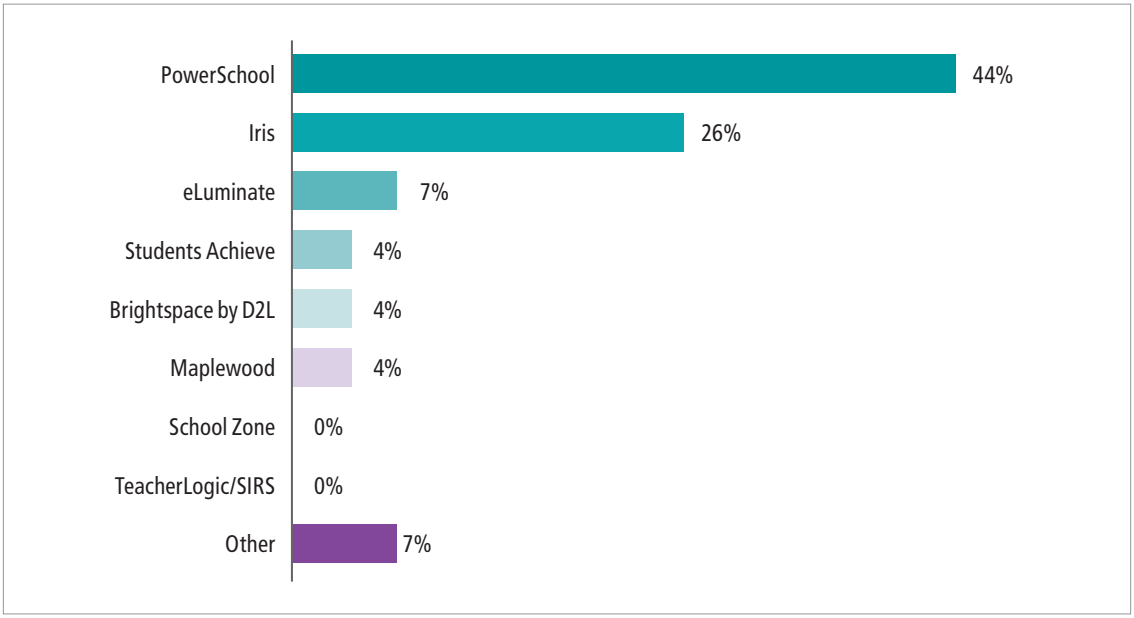

FIGURE 14. Digital reporting tools respondents were planning to use (respondents planning to implement digital reporting, *n* = 27).

Two survey participants selected the "other" option and listed the tools FreshGrade and SchoolZone.[6]

In considering the utility of digital reporting tools, nearly half of the participants who were currently using digital reporting (47 per cent) believed that the tools were aligned with the Alberta program of studies, and a slightly smaller number (45 per cent) stated that the tools had facilitated and improved communication with parents. About one-third of the respondents stated that digital reporting tools had facilitated and improved communication with students (38 per cent), enhanced their professional practice (34 per cent) and increased their efficacy in assessing student learning (32 per cent). Only about one in four respondents (24 per cent) believed that digital reporting tools had improved the level of instruction and assessment in their classroom. Figure 15 represents the users' perceptions regarding the impact of digital reporting tools.

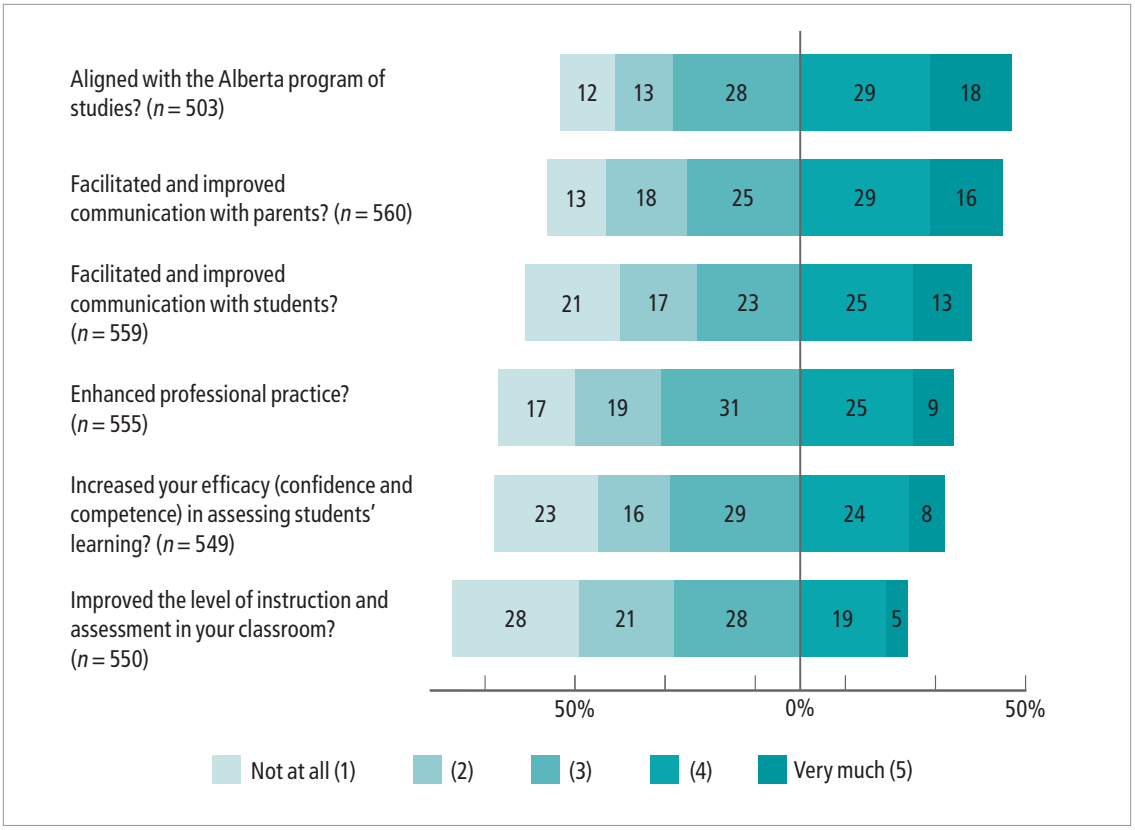

FIGURE 15. Impact of digital reporting tools (respondents currently using digital reporting).

Participants using digital reporting tools were asked to rate two different sources of support (see Figure 16). About one-third (37 per cent) rated the technical support available to them as being good or very good. A smaller number of respondents (30 per cent) rated the professional development or school jurisdiction inservicing available to them as being good or very good.

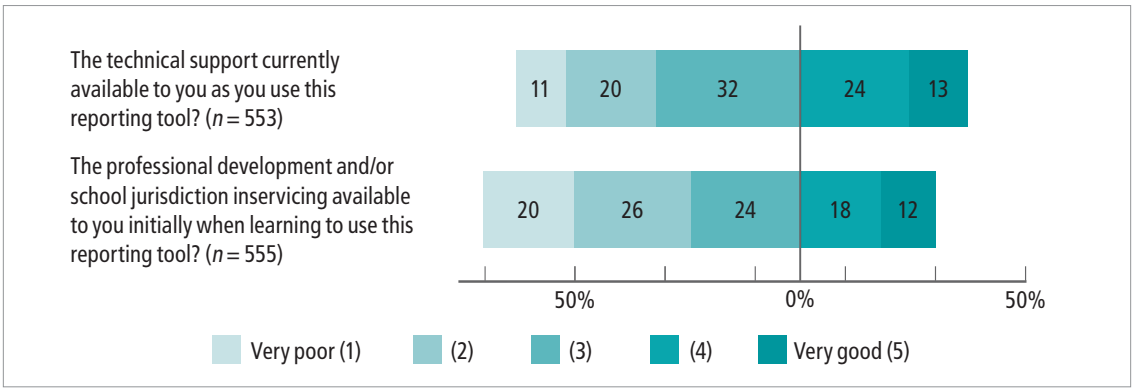

FIGURE 16. Ratings of professional development and technical support available for using digital reporting tools (respondents currently using digital reporting).

As shown in Figure 17, the majority of respondents (73 per cent) reported having had no input in choosing and implementing the digital reporting tool they were using at the time they completed the survey.

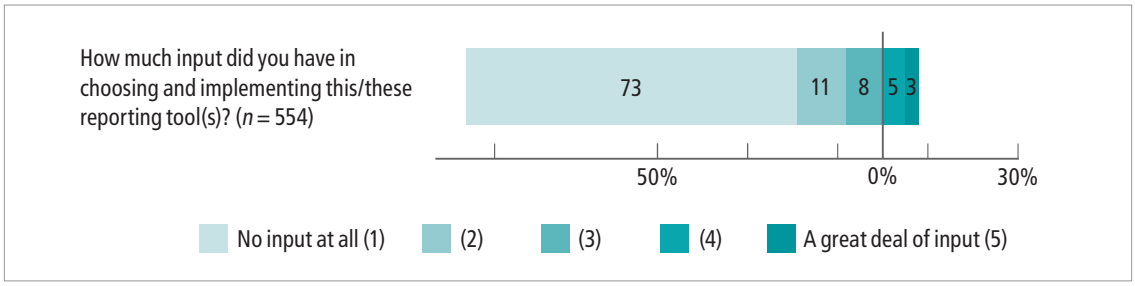

FIGURE 17. Level of input in choosing and implementing digital reporting tools (respondents currently using digital reporting).

For the majority of survey participants (89 per cent), the use of digital reporting tools for their classes was mandated. Figure 18 shows participants' responses regarding the selection of such tools.[7]

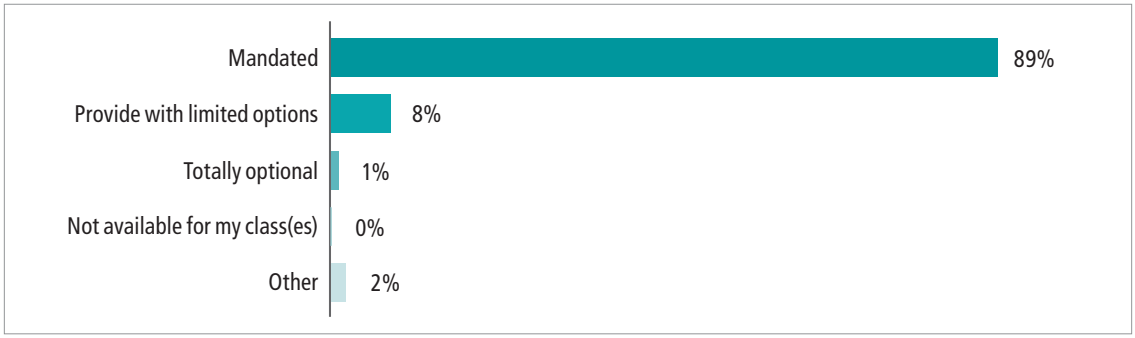

FIGURE 18. Way in which the use of digital reporting tools was determined (respondents currently using digital reporting, *n* = 566).

As Figure 19 demonstrates, 15 per cent of the teachers and school leaders who were using digital reporting tools at the time of the survey believed that the use of digital reporting tools had decreased or significantly decreased their workload. Conversely, more than half (51 per cent) believed that it had increased or significantly increased their workload.

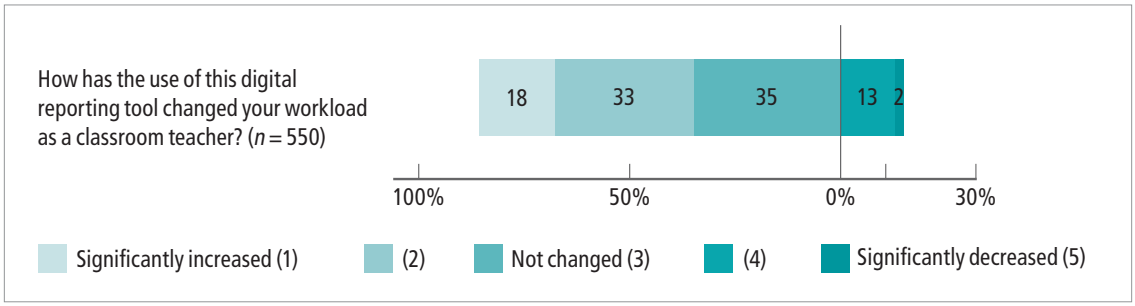

FIGURE 19. Impact of digital reporting tools on workload (respondents currently using digital reporting).

As Figure 20 shows, half of the respondents stated that the use of digital reporting tools had not changed parental expectations with respect to the frequency of reporting. A slightly smaller number of respondents (42 per cent) believed that it had increased or significantly increased parental expectations.

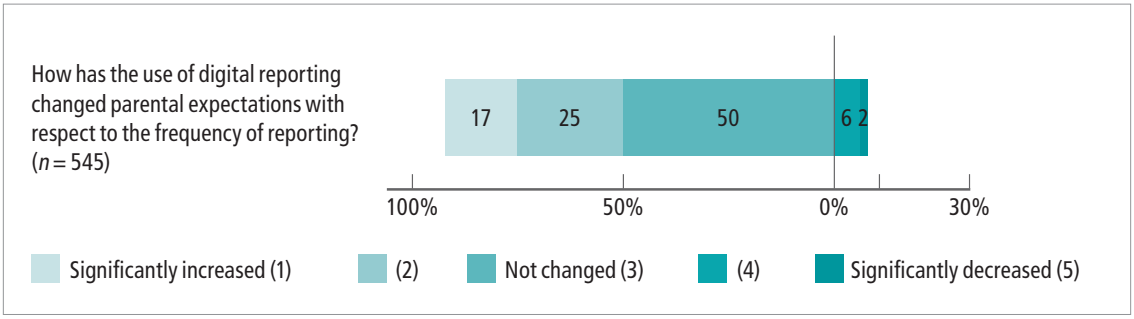

FIGURE 20. Impact of digital reporting tools on parents' expectations (respondents currently using digital reporting).

As shown in Figure 21, more than half (56 per cent) of the teachers and school leaders who were using digital reporting tools stated that the adoption of the tools had increased or significantly increased the amount of time they spent tracking or reporting student progress.

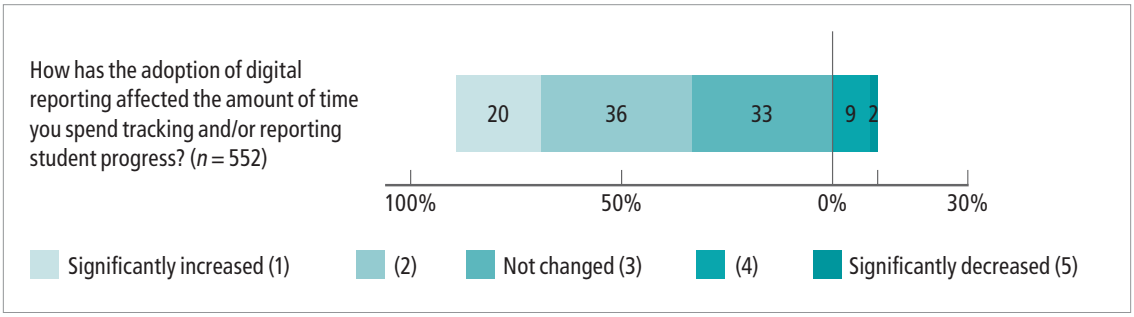

FIGURE 21. Impact of digital reporting tools on time spent tracking and reporting student progress (respondents currently using digital reporting).

More than one-third of the respondents (39 per cent) believed that the digital reporting tool provided enough flexibility for them to render their professional judgment of student performance. At the same time, more than one-quarter (28 per cent) indicated that the tool provided little flexibility. See Figure 22.

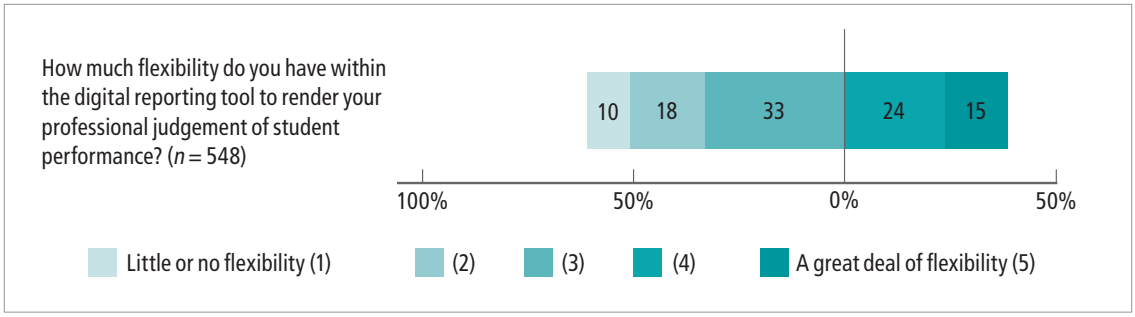

FIGURE 22. Level of flexibility within digital reporting tools (respondents currently using digital reporting).

More than half of the participating teachers and school leaders (61 per cent) reported that their school provided ongoing informal reports to parents. More than three-quarters of participants (76 per cent) provided two to three report cards during the school year, while more than half of the respondents (51 per cent) provided one to three other formal (documented) reports. Figure 23 shows the frequency distribution for all types of reports listed. When asked to specify which other reports were provided by their school to parents, respondents frequently listed parent conferences, interviews or meetings; specialty reports, such as learner support plans (LSPs), individualized program plans (IPPs), English as a second language (ESL) reports and individualized education programs (IEPs); and regular e-mail and phone calls.[8]

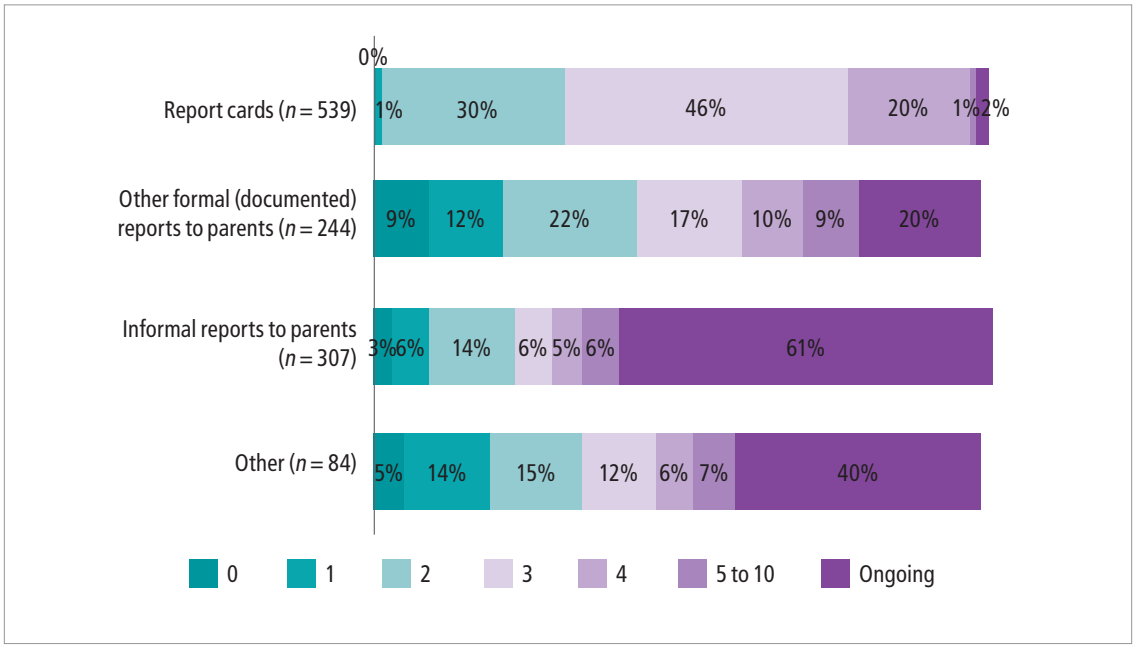

FIGURE 23. Reports provided to parents during the school year (respondents currently using digital reporting).

According to respondents, report cards (71 per cent) and other formal reports (67 per cent) were mostly provided on paper; informal reports were almost equally provided online (60 per cent) and orally (64 per cent). Other reports were provided orally more than online or on paper. Figure 24 shows the frequency of use of the three delivery methods for providing reports to parents.

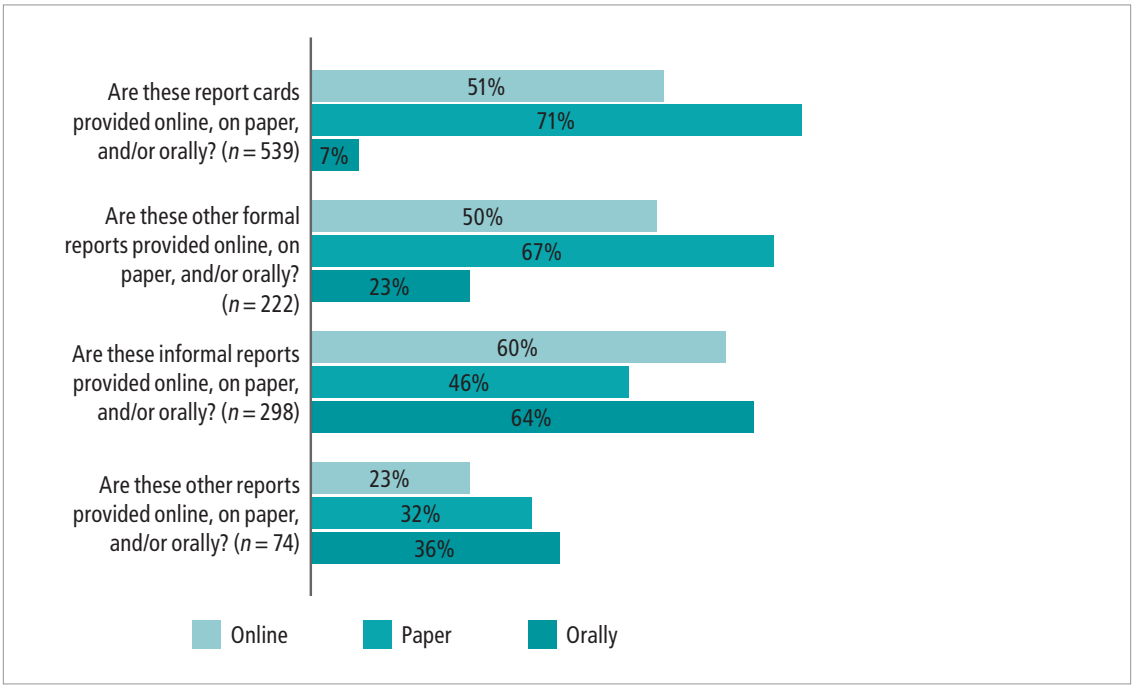

FIGURE 24. Reports provided to parents online, on paper or orally (respondents currently using digital reporting).

When asked about how many times during the school year they were formally required to contact their students' parents or guardians, participants were most likely to answer two (21 per cent) or three (27 per cent) times. Figure 25 represents the frequency with which participants were required to make such contact.

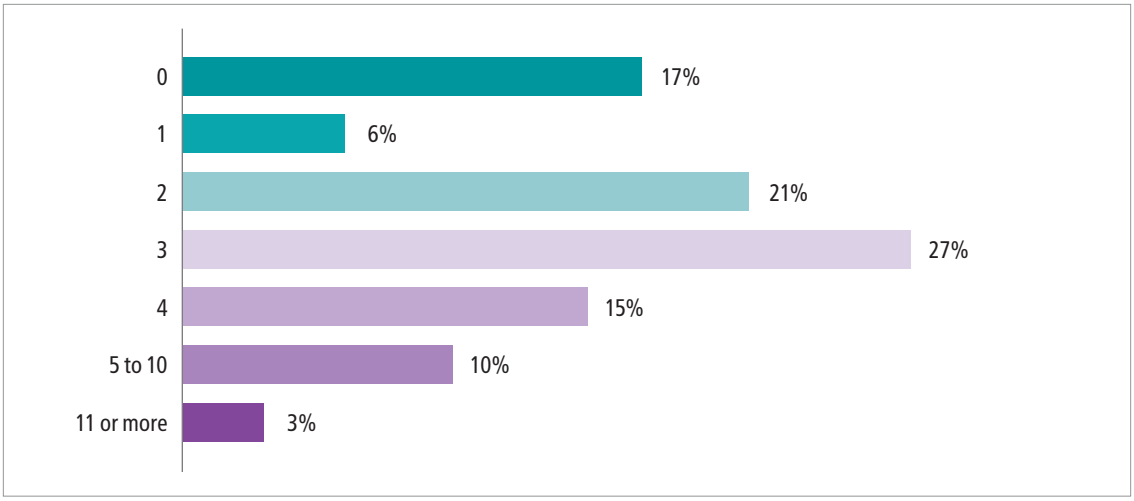

FIGURE 25. Times per school year respondents were formally required to contact students' parents or guardians (*n* = 597).

Most participating teachers and school leaders (69 per cent) estimated that 25 per cent or less of parents were regularly (that is, at least once per week) checking into the online reporting tool. The detailed results are represented in Figure 26.

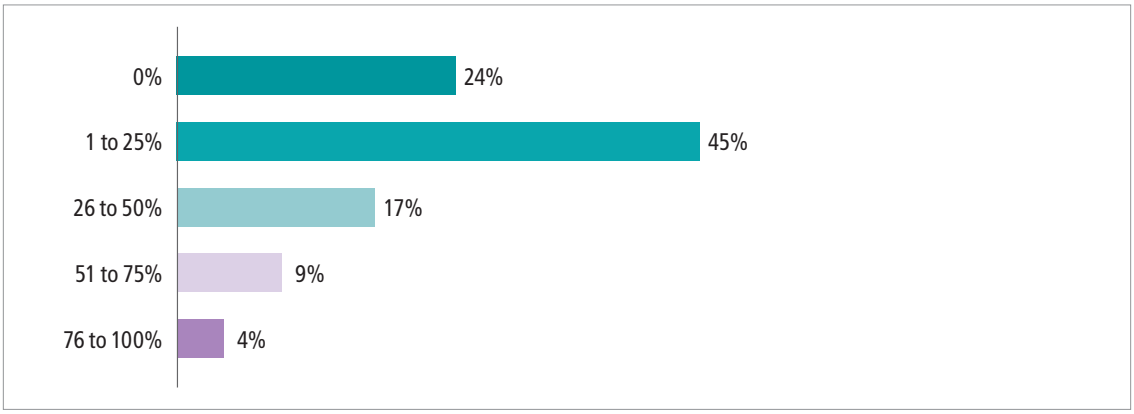

FIGURE 26. Respondents' perceptions regarding the percentage of parents checking the online reporting tool regularly (*n* = 577).

Qualitative Data

Respondents provided additional open-ended feedback in which they recalled specific occasions when digital reporting appeared to have a positive impact on students. Most frequently mentioned was improved communication with both students and parents in order to track, for instance, progress and attendance. Participants also mentioned improved student and parent behaviour, engagement and accountability as positive impacts of digital reporting. Coded comments are included in Table 1.

TABLE 1. Occasions When Digital Reporting Appeared to Have a Positive Impact on Students

Category of comment	Number of responses	Exemplary comments
Better and faster communication with students	151	• "In the high school world it helped a great deal as students could log on at any point and see their grade print out and see which assignments they were missing, etc." • "Students are more aware of where they stand in the class and are quicker to get caught up on missed work when they see for themselves that they are missing a mark on something."
Better and faster communication with parents	136	• "In our online program we can provide parents with details about the number of pages a student has read, quizzes attempted, assignments downloaded and more. Then the parents can get more involved, work with kids [and] provide support." • "On many occasions, parents have been able to witness their child missing assignments and have been able to encourage them to [remedy] this in a timely manner."
Engaged and motivated students, and improved student behaviour	76	• "By adding student voice to IPPs, students have shown more focus and commitment to the goals on the IPP. Iris provides that platform for students to add comments in 'Understanding Myself as a Learner.' Students often comment on the progress they have made since they entered their first goals in September." • "A student can see their progress and initiate conversation[s] regarding marks and progress in the class. I had a student ask me to help increase her mark because she noticed it slipping. Digital reporting helped her take ownership over her own learning."
None	75	• "I think the digital reporting is indifferent to students." • "Our parents do not look at our digital reporting tools. As teachers, we use them to keep track of our assessments and to complete our report cards that are then sent electronically to parents three times a year."

TABLE 1 (*continued*)

Category of comment	Number of responses	Exemplary comments
Students become more accountable	37	• "Students can take responsibility for knowing and tracking their learning journey." • "I think it has positively helped in the sense that it helps students be more accountable for their learning and advocating for themselves. They can check at any time, from anywhere."
Engaged and motivated parents, and improved parent behaviour	30	• "It increases parents' desire to get involved with their child's education. It is sometimes more reliable than a piece of paper that won't get delivered or a phone call that may never be answered." • "In one case it has taken a parent who is causing her child to be habitually late to be on time after seeing the accumulation of lates and getting the e-mails repeatedly regarding attendance."
We do not have or use digital reporting	12	• "We cannot use them because we cannot use computing technology." • "Unfortunately my school doesn't use the learner profile in Iris so students aren't uploading artifacts."
Improved communication between parents and students	10	• "Parents see that [an] assignment is completed or not; then they can speak with their child to find out more about it." • "It helped parents to communicate with their children about their child's day."

Respondents provided additional open-ended feedback in which they recalled specific occasions when digital reporting appeared to have a negative impact on students. The most commonly cited issues were increased student stress and anxiety, and problems with parent–teacher and student–teacher communication. Coded comments are included in Table 2.

TABLE 2. Occasions When Digital Reporting Appeared to Have a Negative Impact on Students

Category of comment	Number of responses	Exemplary comments
Puts stress on students, increases anxiety or negatively affects confidence	52	• "Diligent students report more anxiety and stress, checking multiple times a day to see if their grades fluctuated. Others will often look at the grade but not the comments—both situations showing they care about the grade but not always the learning." • "SLAs—students who needed accommodations (former reader/scribe on old PATs), but were not allowed assistance [and were not] prepared for the test format, [had] full emotional breakdowns, affecting both them and all other students around them."
Negatively impacts parent–teacher and student–teacher communication	49	• "I think that in a regular classroom setting, parents could possibly have unreasonable expectations for how quickly an assignment would be marked due to always being able to access live student marks." • "When students are not aware of the process or opportunity to access the information and may be too fearful to ask, particularly if a student is just learning the school system or language."
Students and parents not engaged	47	• "SchoolZone—[when a] parent . . . never check[s], their child misses out on fieldtrips because permissions forms are not signed and returned." • "Report cards are very hard to read with the 'outcomes based system.' I have seen students throw away the 9+ page document, carrying only the first page, which lists their general behaviour, home."
Parents and students struggle with digital literacy	30	• "Some students who struggle with digital media did not complete thorough reflections as they were tied up in how to upload photos." • "They have become so lengthy and we are asked to use so much jargon I am unsure sometimes [whether] the parents or child really understands what is being reported. Being asked to use strength base sometimes can confuse some parents when their child is falling behind."

TABLE 2 (*continued*)

Category of comment	Number of responses	Exemplary comments
Technical issues with software	23	• "Power School calculates marks unfairly. For example a 3 on a 5 point scale is scored as 60 per cent, but the student in reality could have scored a 75 per cent which is also a 3. We can go in and manually adjust but that seems a bit ridiculous. How about a program that works properly instead of making us go through yet another step." • "When we sent report cards out twice with marks that did not match the mark the students had. Some students had 1 per cent when they had 90 per cent, others had 88 per cent when they only had 66 per cent."
Parents and students do not have access to a computer or the Internet at home	22	• "Not all families have access to a computer or internet and are unaware of the places (eg, library) that they can access their child's information." • "It is unfortunate but we do have students with no access to internet (or, therefore, HomeLogic) and they do not know their marks as it seems to be the only way we communicate."
Parents become too involved	21	• "I feel that constant digital reporting of grades, specifically, feeds into the growing culture of helicopter parents." • "The amount of calls due to parents that are on top of grades, and questioning every little movement in grading. It is a good thing to have open transparency; however, fielding weekly questions about each assessment is too much."
Students become complacent	19	• "They see their grade then shut down because they believe they are too far behind." • "A couple of my smart slackers used their mark summary to figure out they didn't need to pass the final exam and promptly didn't study."

DIGITAL ASSESSMENT TOOLS

Quantitative Data

As Figure 27 shows, at the time of the survey, a slightly larger number of respondents were using or implementing a digital assessment tool (43 per cent) than those who were not (36 per cent).

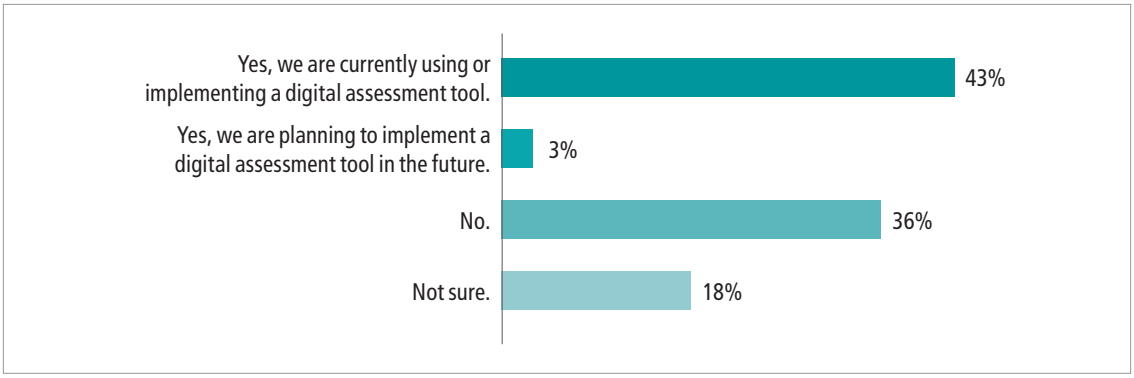

FIGURE 27. Current and planned use of digital assessment tools (*n* = 640).

Many respondents who indicated that they were using or implementing digital assessment tools used Raz-Kids Reading (64 per cent), while about half used Mathletics (54 per cent). Figure 28 represents participants' use of specific digital assessment tools.

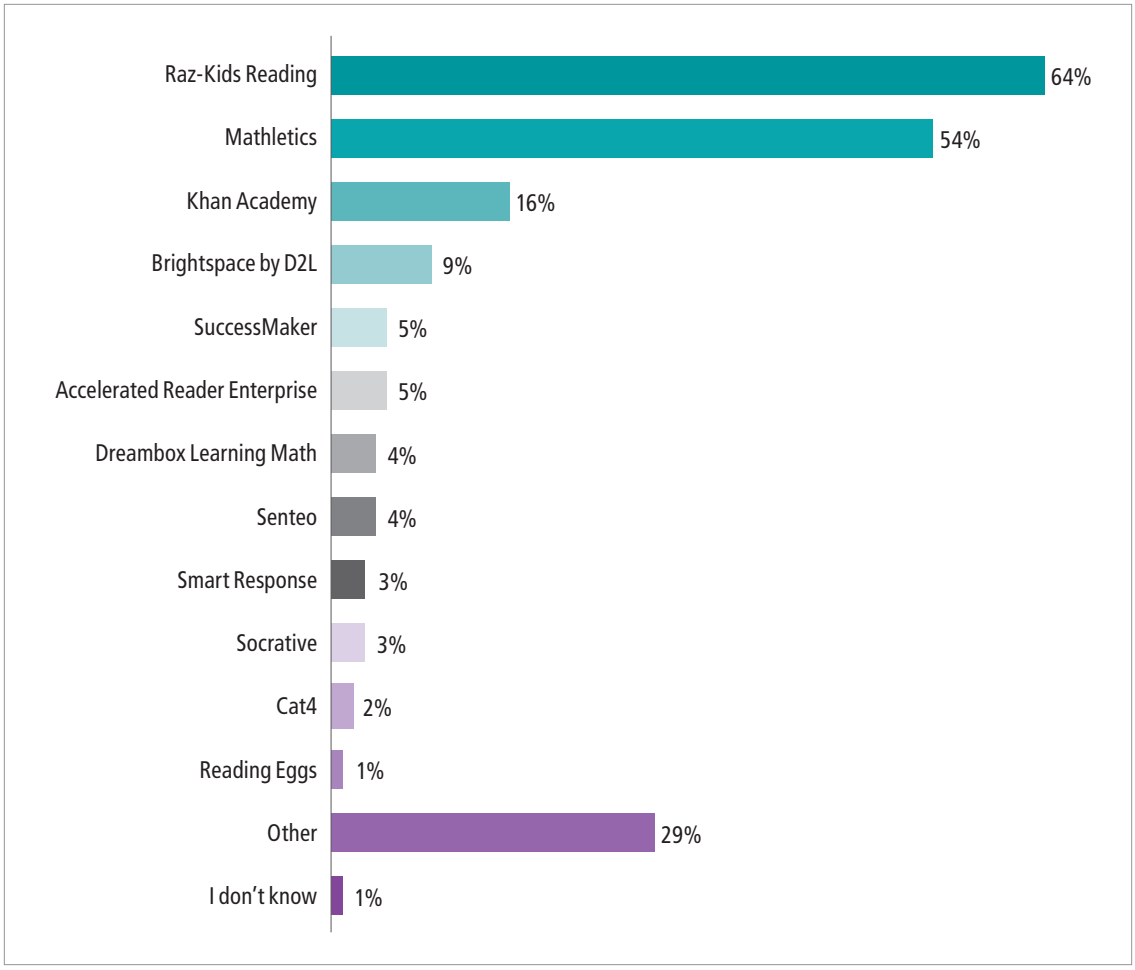

FIGURE 28. Digital assessment tools primarily used (respondents currently using digital assessment, *n* = 275).

A noteworthy proportion of the sample (29 per cent) indicated that they were employing digital assessment tools other than those listed in the survey. Some of the tools noted under "other" included IXL, Prodigy and Google Classroom.[9]

Notably, Mathletics (42 per cent) and Raz-Kids Reading (42 per cent) were also the two top choices for those who were planning to implement digital assessment tools in the future. Figure 29 shows the digital assessment tools participants were planning to employ.

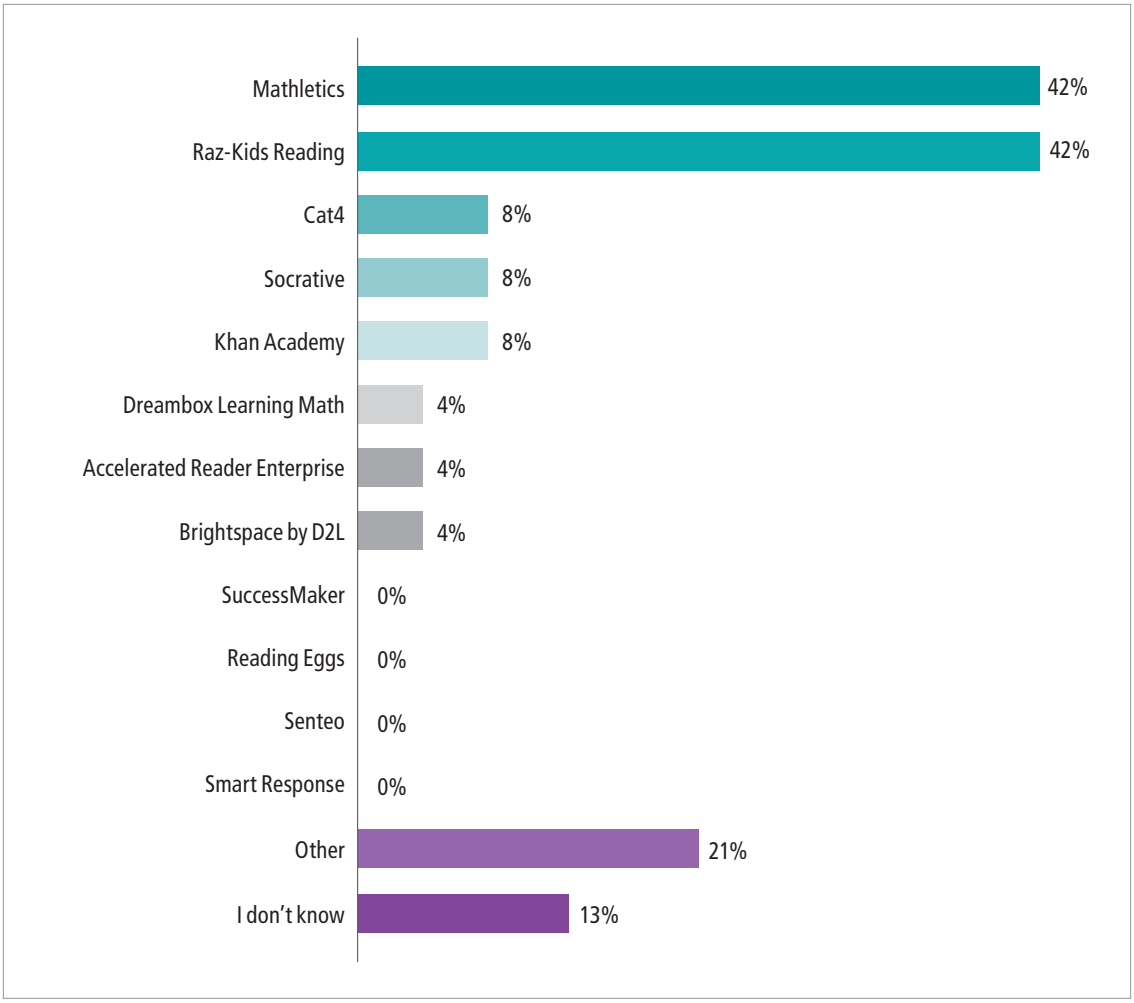

FIGURE 29. Digital assessment tools respondents were planning to use (respondents planning to implement digital assessment, *n* = 24).

Respondents who planned to implement a digital assessment tool other than those listed noted only the following three tools: IXL, MAC II for ELL and Prodigy.[10]

When asked to note any additional diagnostic, adaptive and real-time assessment tools of which they were aware, participants frequently listed IXL, Prodigy and Kahoot. Table 3 shows those tools that were listed at least two times, as well as their corresponding number of responses.

TABLE 3. Additional Diagnostic, Adaptive and Real-Time Assessment Tools Noted by Respondents

Digital assessment tool	Number of responses
IXL	13
Prodigy	9
Kahoot	7
Fountas and Pinnell	5
ReadTheory	5
D2L	4
MIPI (Math Intervention/ Programming Instrument)	4
Google	4
DIBELS	3
Mathletics	3

Digital assessment tool	Number of responses
Quizlet	3
Raz-Kids	3
ExamBank	2
Imagine	2
Lexia	2
Newsela	2
Reflex	2
Seesaw	2
STAR	2
Sumdog	2
Other	42

About two-thirds (65 per cent) of the participating teachers and school leaders who were planning to use or implement a digital assessment tool believed that they would have a reasonable level of input when choosing the tool.

About half (52 per cent) of the participants whose school had implemented or was implementing the tools at the time of the survey stated that they had had a reasonable level of input.

Less than a third (29 per cent) of those who selected "no" or "not sure" when asked if their school was using digital assessment tools believed that they would have a reasonable level of input if their school were to implement these tools.

Figure 30 represents the respondents' perceptions regarding their level of input.

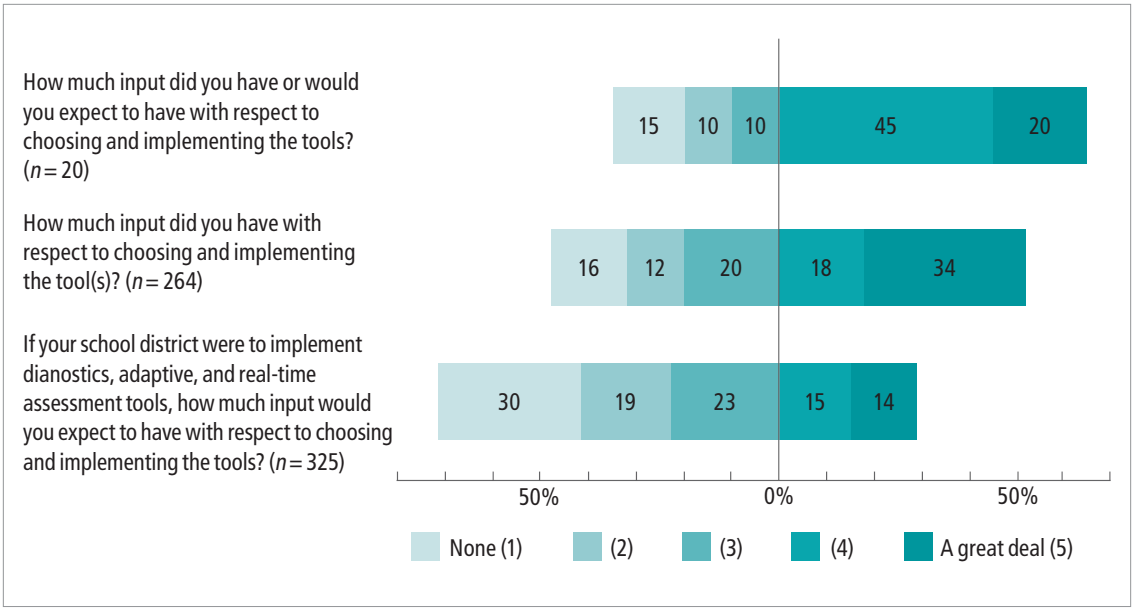

FIGURE 30. Level of input in choosing and implementing digital assessment tools.

As Figure 31 shows, for slightly more than half of the respondents (54 per cent) who were currently using digital assessment tools, the use of diagnostics, adaptive and real-time assessment tools for their classes was optional.[11]

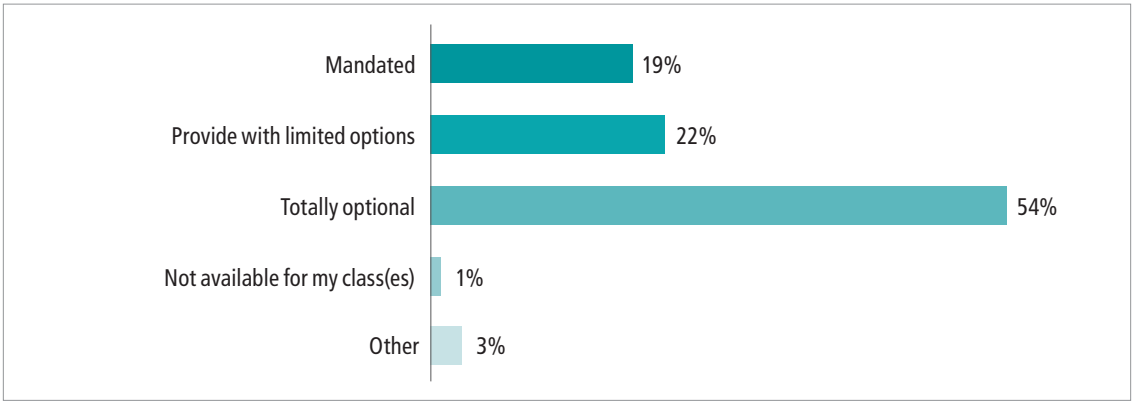

FIGURE 31. Way in which the use of digital assessment tools was determined (respondents currently using digital assessment, *n* = 272).

Slightly more than half (55 per cent) of the participating teachers and school leaders stated that the use of diagnostic, adaptive and real-time assessment tools had no impact on their workload as a classroom teacher. Figure 32 shows full details.

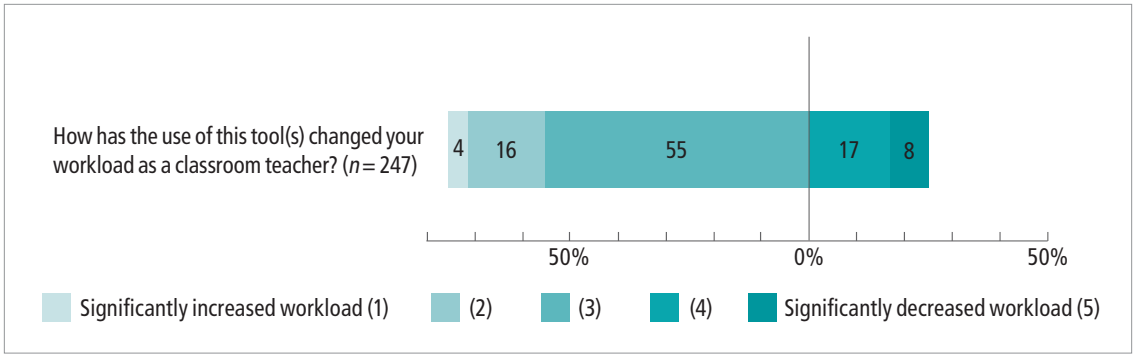

FIGURE 32. Impact of digital assessment tools on workload (respondents currently using digital assessment).

Participants were asked to rate two different sources of support for using digital assessment tools. About one-third (31 per cent) rated the technical support available at the time they completed the survey as good or very good. A smaller number of respondents (26 per cent) rated the professional development or school jurisdiction inservicing available to them when learning how to use the digital assessment tool as good or very good. Full details are shown in Figure 33.

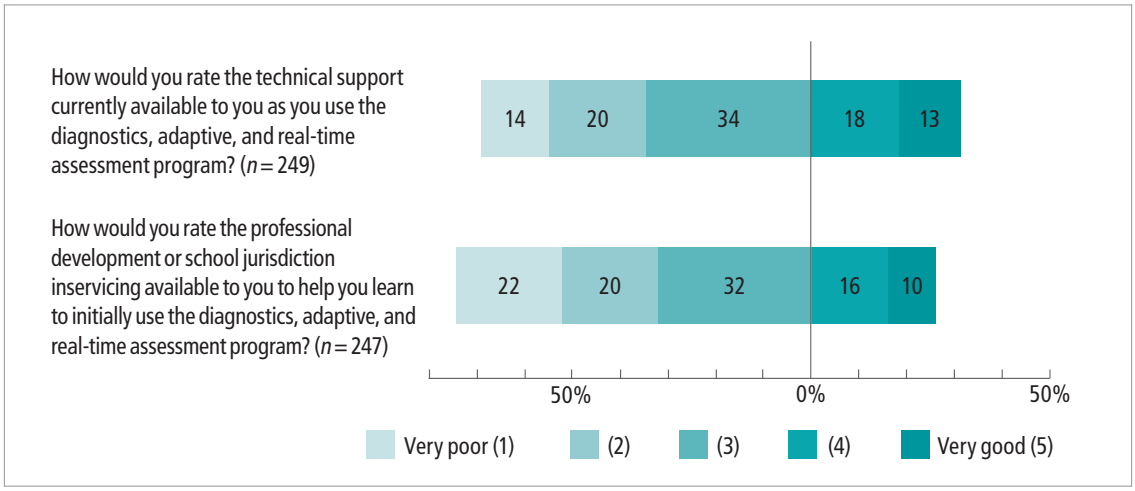

FIGURE 33. Ratings of professional development and technical support available for using digital assessment tools (respondents currently using digital assessment).

More than two-thirds of the participants indicated that the subject area content or skills within these assessment tools were compatible with Alberta programs of study. See Figure 34.

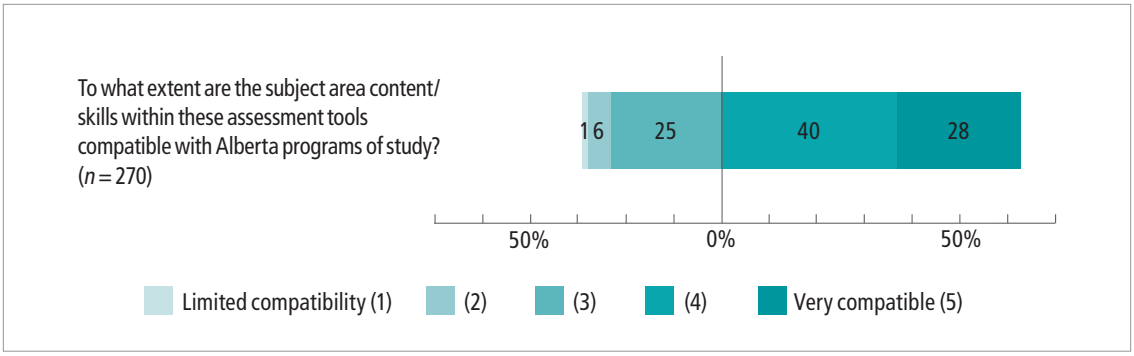

FIGURE 34. Compatibility of digital assessment tools with Alberta programs of study (respondents currently using digital assessment).

Qualitative Data

Respondents provided additional open-ended feedback in which they recalled specific occasions when the use of a digital assessment tool appeared to have a positive impact on students. They overwhelmingly stated that digital assessment engaged and motivated their students. Participants also mentioned that digital assessment tools provided students with supplemental practice and learning opportunities, as well as instant feedback. Some noted that the tools' flexibility allowed for better reflection on progress and that the tools offered teachers flexibility, allowing them to customize instruction to meet specific student needs. Representative comments are provided in Table 4.

TABLE 4. Occasions When Digital Assessment Tools Appeared to Have a Positive Impact on Students

Category of comment	Number of responses	Exemplary comments
Students become engaged and motivated	73	• "I use Kahoot regularly as one method of formative assessment. The students get excited about these every time and are engaged and enthusiastic." • "It provides time where the student can learn and interact with the program outside of the school setting. It has encouraged students to explore learning opportunities throughout their time at home in a fun and engaging way."

TABLE 4 (*continued*)

Category of comment	Number of responses	Exemplary comments
Supplemental practice and learning opportunities	36	• "I used Quizlet for vocabulary development in Science and Social [Studies]. It has been engaging for students and I can assess formally and informally as students work in groups or alone. They find the game/competition aspect fun. One girl went home after her first two times on Mathletics and chose to do Mathletics instead of non-academic computer games/activities." • "With Moodle, students [are] able to take courses that would not normally be offered to them; students who had never dreamed of graduating or finishing school are now doing so!"
Easier and faster evaluation and feedback	30	• "Students receive immediate feedback [on] how they are doing, and are more willing to do independent practice at home and during class time." • "Using the program Quia, students are able to practice concepts learned in class in a variety of methods, a variety of learning games such as Rags to Riches (Millionaire); practice quizzes and tests allow the students to have instant feedback on their responses. These activities take a great deal of time to prepare but when made have a great impact on student success for the students that access them."
Customized instruction to meet student needs	26	• "[It has benefited] students who were significantly below grade level in math. . . . This helped with programming to help teach the 'gaps' students had. It also helped when communicating with parents." • "I have found the results from the STAR assessment helpful in assisting me to provide student differentiation, which has resulted in increased literacy."
Parents become more engaged and accountable	19	• "One of my students is ELL and their family struggled to help them with their daily reading. By using Raz-Kids, [not] only did my student learn to read, so did her parents!" • "A child who went on an extended vacation for over a month, but continued to use Raz-kids and Mathletics every day."

Most survey respondents did not recall a specific occasion when digital assessment tools appeared to have a negative impact on a student or students. Those who did recall a specific occasion most frequently referred to a lack of use or inappropriate use of a tool, issues with technology, and a mismatch between the assessment provided by the tool and a student's actual learning. Table 5 includes a list of all coded categories and a few exemplary comments.

TABLE 5. Occasions When Digital Assessment Tools Appeared to Have a Negative Impact on Students

Category of comment	Number of responses	Exemplary comments
Not applicable/ no	35	• "I can't think of any specific occasion." • "N/A." • "No." • "Not really."
Lack of, or improper, use of the tool	13	• "If a child does not use the program, they do not gain the extra reading practice and their reading level at school and on the program do not match. This is problematic when trying to create consistency." • "Students not taking it seriously and eating class time." • "When teacher is totally reliant on the tool."
Technology issues	12	• "Freezes, computers don't always run well with [microphone]." • "Just when the technology is not working properly—then the student gets behind on a test because they have [to] get a different computer." • "Some of the technology for students [with special needs] is too challenging (too many steps for students)."
Mismatch with real learning	10	• "Students sometimes just guess at answers without doing the work, or work at an easier level that would be good for them if they have a choice." • "Solaro does not currently do an adequate job of leveling; most of my students have found the tests too difficult and, thus, discouraging."
Increased stress and anxiety	7	• "Students get very frustrated with timed assessments." • "If the sessions are set to be too long for the student, then they get frustrated with them and do not continue and, hence, do not enjoy subject-specific success."

TABLE 5 (*continued*)

Category of comment	Number of responses	Exemplary comments
Unfair for those with lack of access	5	• "It could put a student without internet access at a disadvantage if the assessment was to be done on their own time at home or after school hours. Accessibility is important if outside-of-class time is expected." • "Not all families have a computer at home."
Causing low self-esteem	5	• "I once had a student complete a self check 28 times without achieving success. That was demoralizing and eventually led to the student quitting school." • "Sometimes when children are challenging one another, some students may always be chosen if they have difficulty with a particular concept because they are easier to defeat. This could be hard on these students who are already finding school a challenge."
Increased competition between students	3	• "Assessment tools that encourage competition change the purpose of the tool, and students become 'rowdy' and distracted by the win."
Increased Internet browsing	3	• "Student who would want to browse alternative sites than specified."
Mathletics-specific issue	3	• "Math games—Mathletics. Students just using this to play not extend or complement learning."
Increased screen time	3	• "Some parents do not like increasing screen time for their child."
Other	15	• "Cost of providing equal access to all students for digital assessments." • "Makes it more difficult to learn in different ways that are not as exciting as technology." • "When tools aren't aligned with Alberta Education's curriculum."

DIGITAL PORTFOLIO TOOLS

Quantitative Data

As Figure 35 shows, about half of the respondents (51 per cent) were not using or implementing a digital portfolio platform at the time they completed the survey; only one-quarter of the participants were.

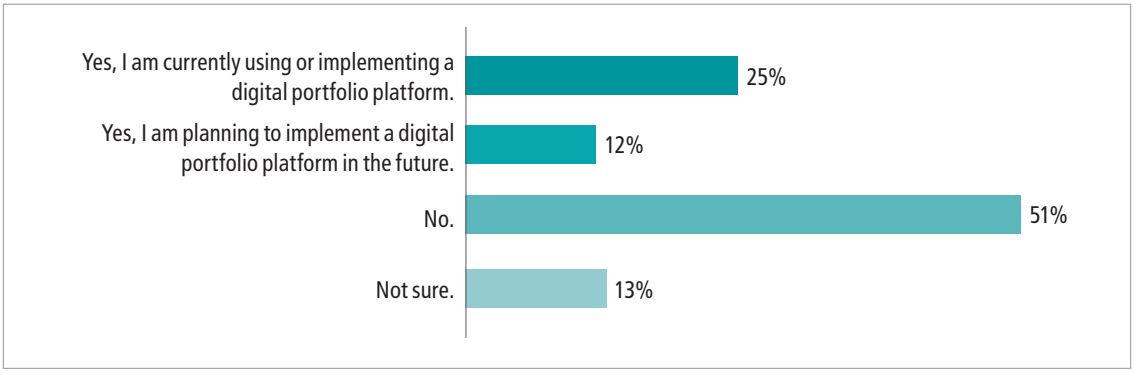

FIGURE 35. Current and planned use of digital portfolio platforms (*n* = 640).

About two-thirds of the respondents who were at the time of the survey using or implementing a digital portfolio platform used Google Apps for Education (65 per cent); other commonly used portfolio tools were ClassDojo (21 per cent) and FreshGrade (12 per cent). Figure 36 shows the full listing of the digital portfolio platforms provided and their selection percentages.

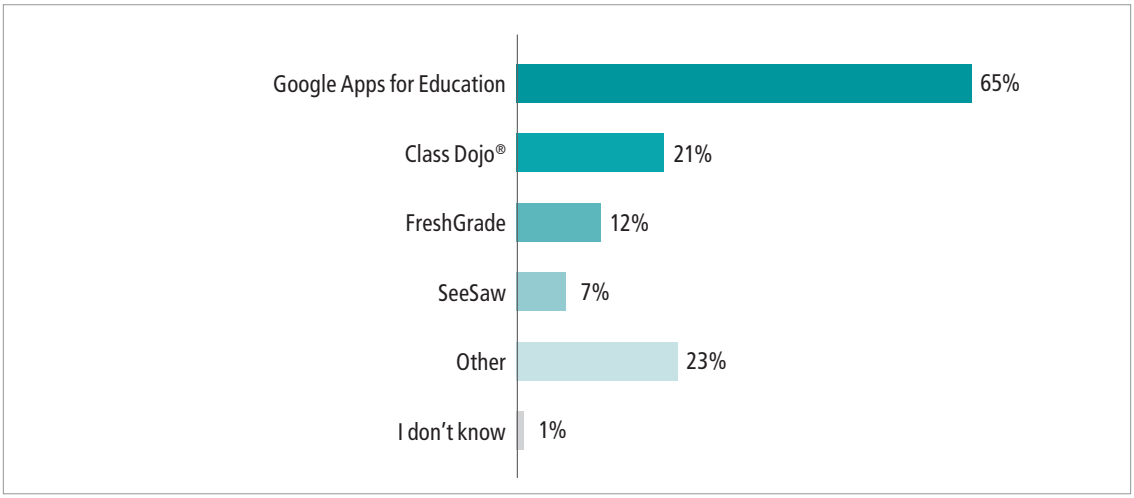

FIGURE 36. Digital portfolio platforms primarily used (respondents currently using digital portfolios, *n* = 162).

The digital portfolio platforms listed by those respondents who selected "other" included Iris, myBlueprint and Google.[12]

Respondents who were planning to implement digital portfolio platforms selected Google Apps for Education more frequently (61 per cent) than any other of the listed platforms. The second and third most popular selections were ClassDojo (13 per cent) and Seesaw (11 per cent). All platforms and their corresponding percentages are shown in Figure 37.

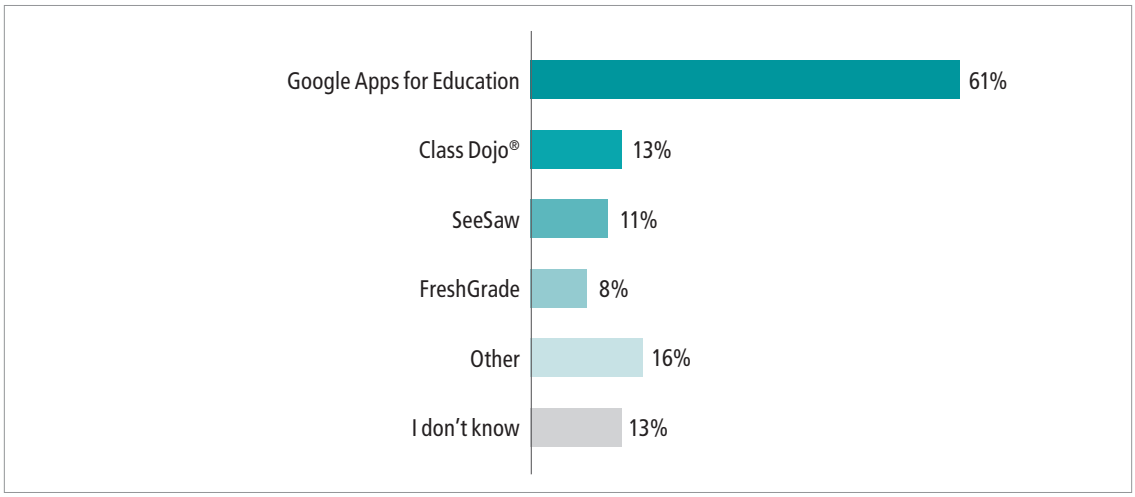

FIGURE 37. Digital portfolio platforms respondents were planning to use (respondents planning to use digital portfolios, *n* = 76).

Only two other digital portfolio platforms were repeatedly listed by those respondents who selected "other" when asked which platforms they planned to use in the future: Iris and CSL.[13]

Survey participants were asked to list any additional digital portfolio platforms they were aware of. ClassDojo, Iris and WordPress topped the list. Table 6 shows all platforms listed, as well as their corresponding number of responses.

TABLE 6. Additional Digital Portfolio Platforms Noted by Respondents Currently Using Digital Portfolios

Digital portfolio platform	Number of responses	Digital portfolio platform	Number of responses	Digital portfolio platform	Number of responses
ClassDojo	5	FreshGrade	3	Edmodo	2
Iris	4	Google	3	Edublogs	2
WordPress	4	Seesaw	3	Moodle	2
Evernote	3	Bloomz	2	Other	17

About half (53 per cent) of the participating teachers and school leaders whose school had implemented or was implementing the digital portfolio tools believed that they had a reasonable level of input when choosing the tool. Slightly less than half (48 per cent) of the participants whose schools were planning to use or implement a digital portfolio platform stated that they believed that they had or would have a reasonable level of input.

Less than one-third (31 per cent) of those who selected "no" or "not sure" when asked if their school was using digital portfolio platforms believed that they would have a reasonable level of input if their school were to implement these platforms. Figure 38 shows the percentages for all three types of respondents and their perceived level of input.

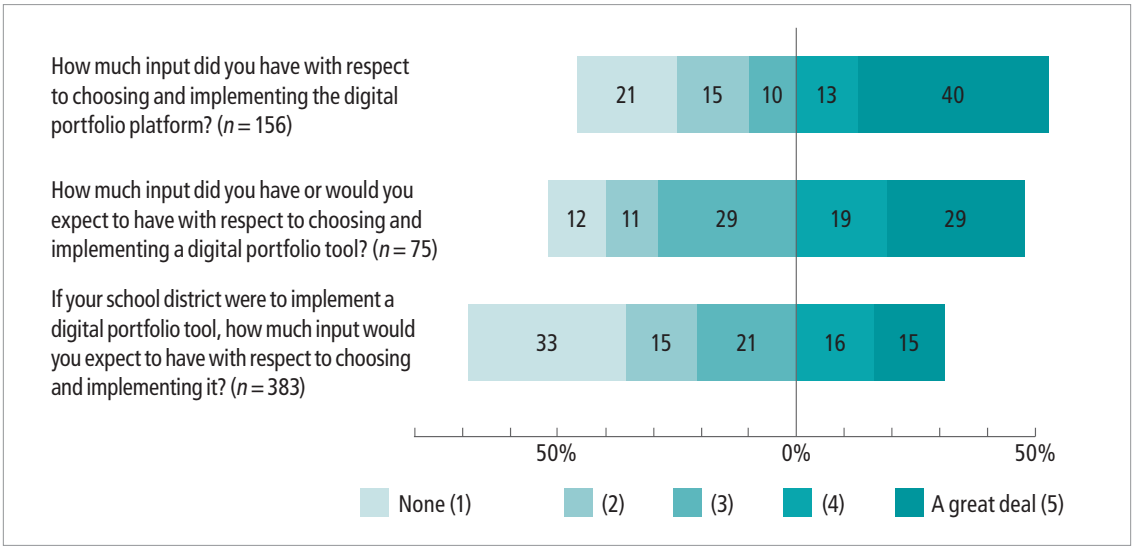

FIGURE 38. Level of input in choosing and implementing digital portfolio platforms.

For more than half of the participants (57 per cent), the use of digital portfolio tools for their classes was optional. Figure 39 shows the selection percentages for all the options provided.[14]

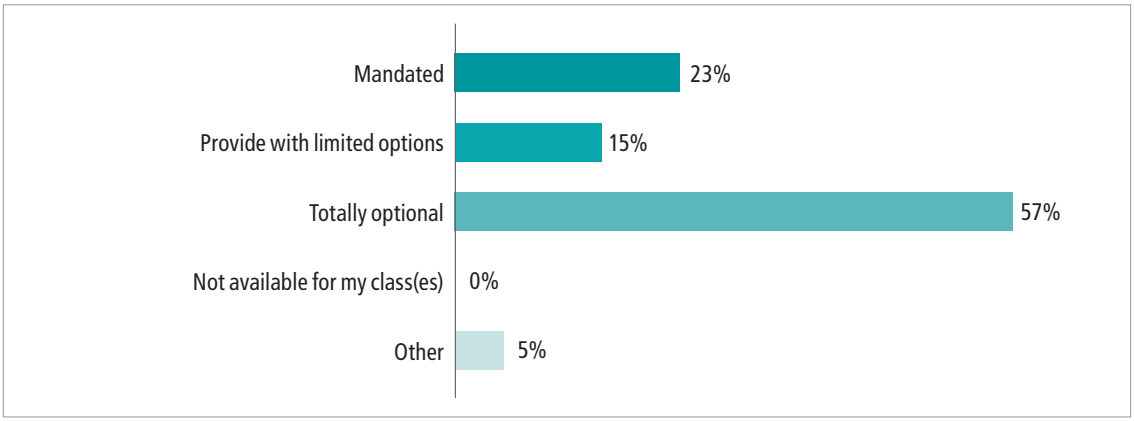

FIGURE 39. Way in which the use of digital portfolio platforms was determined (respondents currently using digital portfolios, *n* = 163).

About half of the respondents (47 per cent) who were currently using or implementing a digital portfolio platform stated that the use of portfolio platforms had no impact on their workload as a classroom teacher. Figure 40 shows full details.

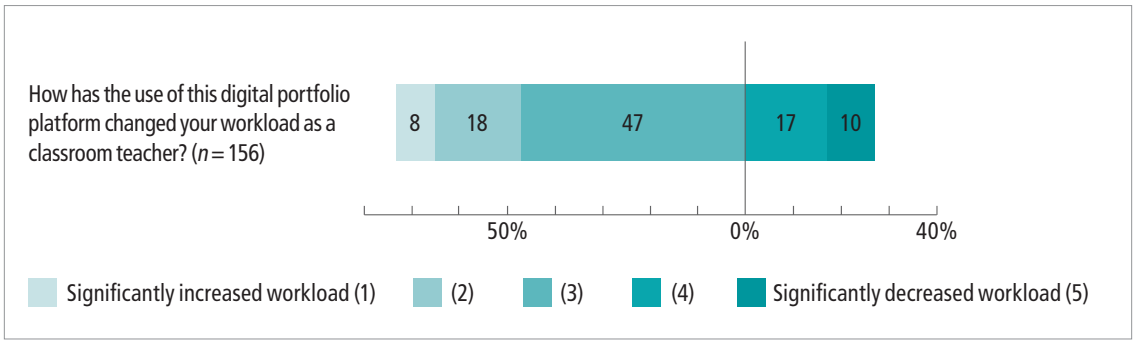

FIGURE 40. Impact of digital portfolio platforms on workload (respondents currently using digital portfolios).

More than two-thirds (67 per cent) of the survey participants who had already implemented digital portfolio platforms were using the platforms to track, document and share student work. A smaller number of respondents were using their digital portfolio platforms to shape classroom culture (39 per cent) or track student conduct (24 per cent). Figure 41 shows the items rated.

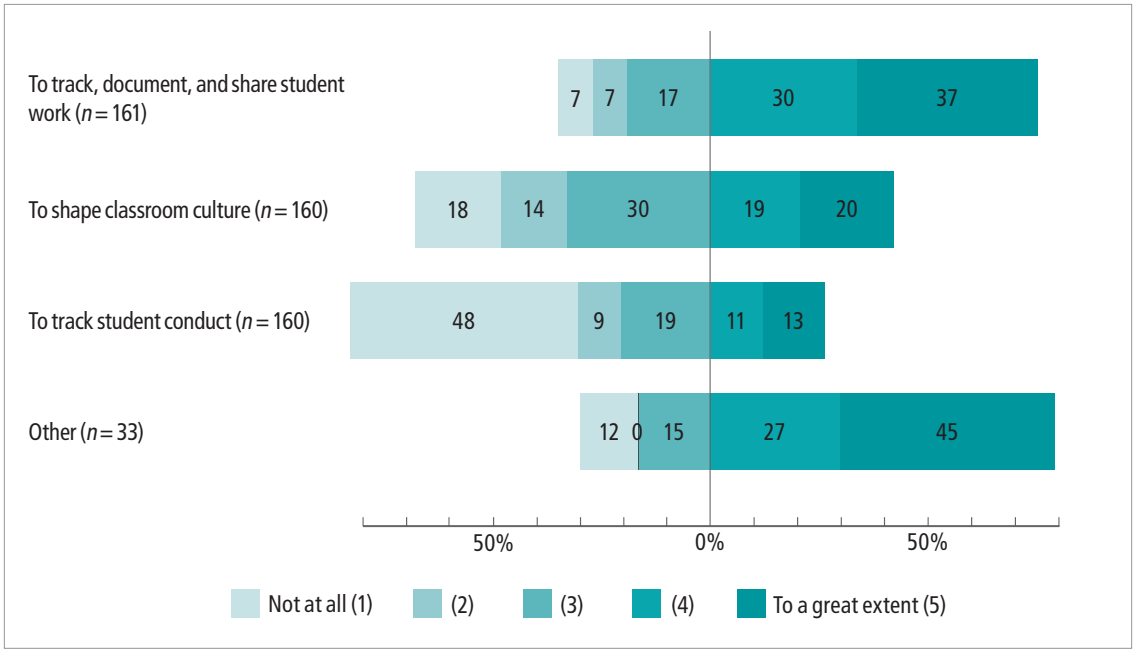

FIGURE 41. Extent of use of digital portfolio platforms (respondents currently using digital portfolios).

Teachers and school leaders also used digital portfolio platforms to communicate with parents, collaborate and share with students, assess and track student work, and foment self-assessment and self-learning.[15]

More than one-third of digital portfolio platform users (42 per cent) rated the technical support available at the time they completed the survey as good or very good. A similar number of respondents (39 per cent) rated the professional development or school jurisdiction inservicing available to them when learning how to use the platform as good or very good. Full details are shown in Figure 42.

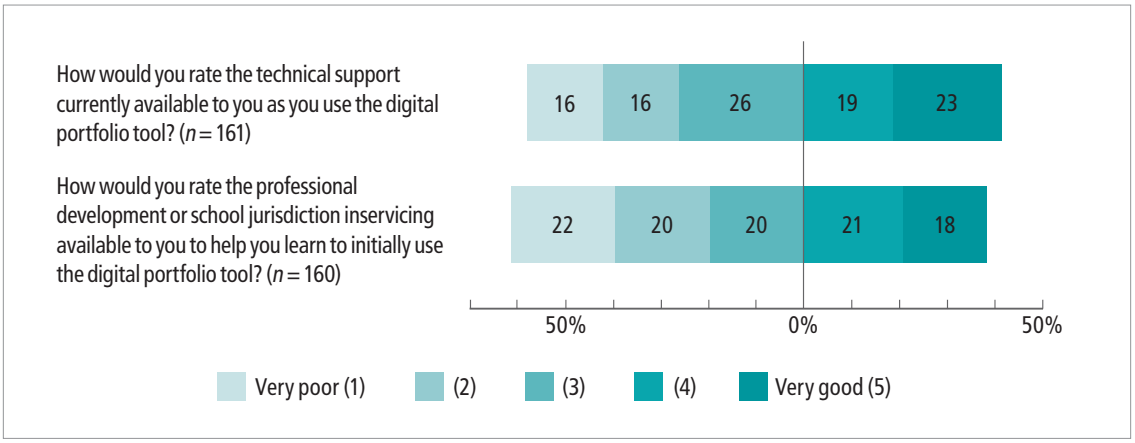

FIGURE 42. Ratings of professional development and technical support available for using digital portfolio tools (respondents currently using digital portfolio tools).

Two-thirds of the participants indicated that the subject area content or skills within these digital portfolio platforms were compatible with Alberta programs of study. Figure 43 shows full details.

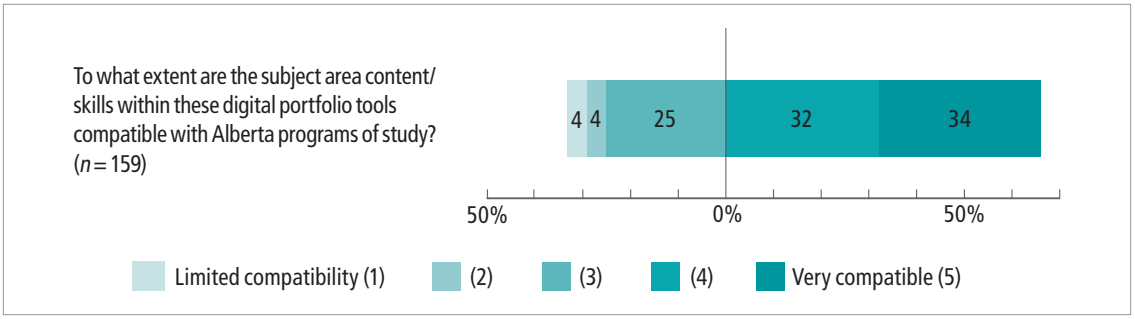

FIGURE 43. Compatibility of digital portfolio tools with Alberta programs of study.

Qualitative Data

Respondents provided additional open-ended feedback recalling specific occasions when digital portfolio tools appeared to have a positive impact on students. Participants frequently noted that the tools improved communication with parents, facilitated student work and learning, and enabled better teacher feedback and information tracking. Representative comments are included in Table 7.

TABLE 7. Occasions When Digital Portfolio Tools Appeared to Have a Positive Impact on Students

Category of comment	Number of responses	Exemplary comments
Improved communication with parents	21	• "Has really helped open up the conversation and support with parents, as they know what is happening in the classroom more." • "Sharing learning experiences, events, products and process have helped students and teachers more quickly and readily share things with parents. Some parents take advantage of this and respond. Others, it is hard to tell." • "SeeSaw is amazing. It allows me to showcase the students' work and to keep parents in the loop." • "Positive parental support. Many of my students' parents commented how much they like seeing pictures of what their children are doing and learning in the classroom. It keeps them connected with the classroom." • "Students sharing their portfolios with their parents create better portfolios, especially when their parents are tech savvy enough to look at them."
Facilitated student work and learning	20	• "Students who are disorganized find GAFE easier to organize work." • "Some students prefer digital tools and find they make the work easier than traditional assignments." • "Many of my students have poor attendance and miss things. They can get everything on Google Classroom and stay up to date, even if their lives are unstable. (They use their cell phones.)" • "It has enriched the learning for my high level students and supplemented the learning of low level students."

TABLE 7 (*continued*)

Category of comment	Number of responses	Exemplary comments
Better feedback	16	• "Quicker feedback always is beneficial. Students also like the notations in their work." • "Students have access to updated progress information on a daily basis." • "When students can quickly bring up their marks and check them daily they have quicker feedback and can therefore begin sooner to change and do better work." • "When I use Class Dojo to track student conduct, it gives them immediate feedback."
Tracking and keeping information	15	• "I find it easier to track assignments without students losing them." • "Some students enjoy collecting artifacts to show their learning." • "Students are proud to have access to their work to show family." • "This digital library of student work is incredible."
Facilitated collaboration	12	• "Class documents/slides/spreadsheets filled in cooperatively in small or large groups in Google Apps towards research objectives." • "Also, being able to use and share the document with fellow students is very useful for group tasks." • "Collaborative and interactive and real time." • "Culture of collaboration in the classroom."
Reflection and self-assessment	10	• "A student was able to reflect on prior mistakes and learn from them." • "Works well with PEBS and zones of regulation to track behaviour and help students be more accountable for their actions and identifying their emotions." • "My students are more motivated to earn points and are taking more ownership of their behaviours."

TABLE 7 (*continued*)

Category of comment	Number of responses	Exemplary comments
Improved communication with students	8	• "In some cases it is a useful form of communication when students are working in different parts of the school based upon their learning needs." • "It increases student involvement in communicating their achievement and it follows them as they grow into the next grade."
Don't know/not applicable	5	• "I cannot recall." • "None."
Help with planning	2	• "Planning out high school courses for registration purposes."
Other	8	• "Celebrating their work." • "I have just started using Google classroom and so far all my experiences with it have been positive." • "Students are motivated!"

Most survey respondents did not recall a specific occasion when digital portfolio platforms appeared to have a negative impact on a student or students. Those who did recall a specific occasion referred to improper use of the platform, increased workload, unequal student access to the Internet or computers at home, the reward or punishment system that the platforms created, and issues with technology. Table 8 includes the coded categories and exemplary comments.

TABLE 8. Occasions When Digital Portfolio Tools Appeared to Have a Negative Impact on Students

Category of comment	Number of responses	Exemplary comments
None	13	• "N/A." • "None." • "No." • "None so far."

TABLE 8 (*continued*)

Category of comment	Number of responses	Exemplary comments
Improper use	9	• "I notice that students sometimes seem to think that plagiarizing from websites is more acceptable when working in their digital portfolios." • "Not using the tool for the right intention." • "Students cheat, and we can catch them. Some tasks that require ingenuity and creativity must still be done 'the old fashioned way' to be certain student work is genuine. Students have to write or demonstrate their process as product—writing a 'here is how I wrote my story' essay along with their 'here is my story.' Alberta 'outcomes' must be massaged so students clearly demonstrate skills in their processes vs producing only the product." • "Students using the Google Classroom to avoid doing work in class. Classroom discipline."
Increased workload	8	• "Students find it to be more work and more overwhelming." • "The time it takes to upload and organize the documents on the teacher and students." • "Set up takes a long time, so does teaching the kids to use it independently in Kindergarten/Grade 1. But anything worth teaching takes time."
Lack of access	7	• "I have a number of students who don't have a computer or WiFi access from home. In a sense, this lack disadvantages them, because some of my assignments are structured around the expectation of access." • "Parents who do not have access to digital/tech."
Reward/ punishment system	7	• "Doing tasks for a reward often seems like a negative thing to do." • "Parents often will write very negative comments on their Fresh Grade (why is this mark so low? Or you need to do better because this is terrible!) that not only the student can see but the teacher also."
Issues with technology	7	• "Sometimes they are missing out on learning time as it takes a long time to upload work on digital portfolios." • "When technology is not working properly."

TABLE 8 (*continued*)

Category of comment	Number of responses	Exemplary comments
Lack of parent participation	2	• "No directly negative experience in this regard. However, some parents seem to completely ignore the Portfolio things shared and that can be sad for children when others have their parents supporting and encouraging them. Not a fault of the digital tool, just an unfortunate reality of parent involvement or lack thereof."
Other	8	• "FOIPP." • "It has children on screens a lot during their day." • "My School Division does not approve the use of Class Dojo." • "Parents don't know what it is and are not on board . . . yet. However it has been 4–6 years since the launch."

ISSUES RELATED TO DIGITAL REPORTING, ASSESSMENT AND PORTFOLIO TOOLS

When asked about issues related to digital reporting, assessment and portfolio tools, respondents' top concerns were teachers' workload (73 per cent), level of consultation with teachers about the purchase and use of the tools (60 per cent), and flexibility of the tools (56 per cent). Respondents were the least concerned about how long data was retained (26 per cent) and where the student data was being stored (24 per cent). Full details are shown in Figure 44.

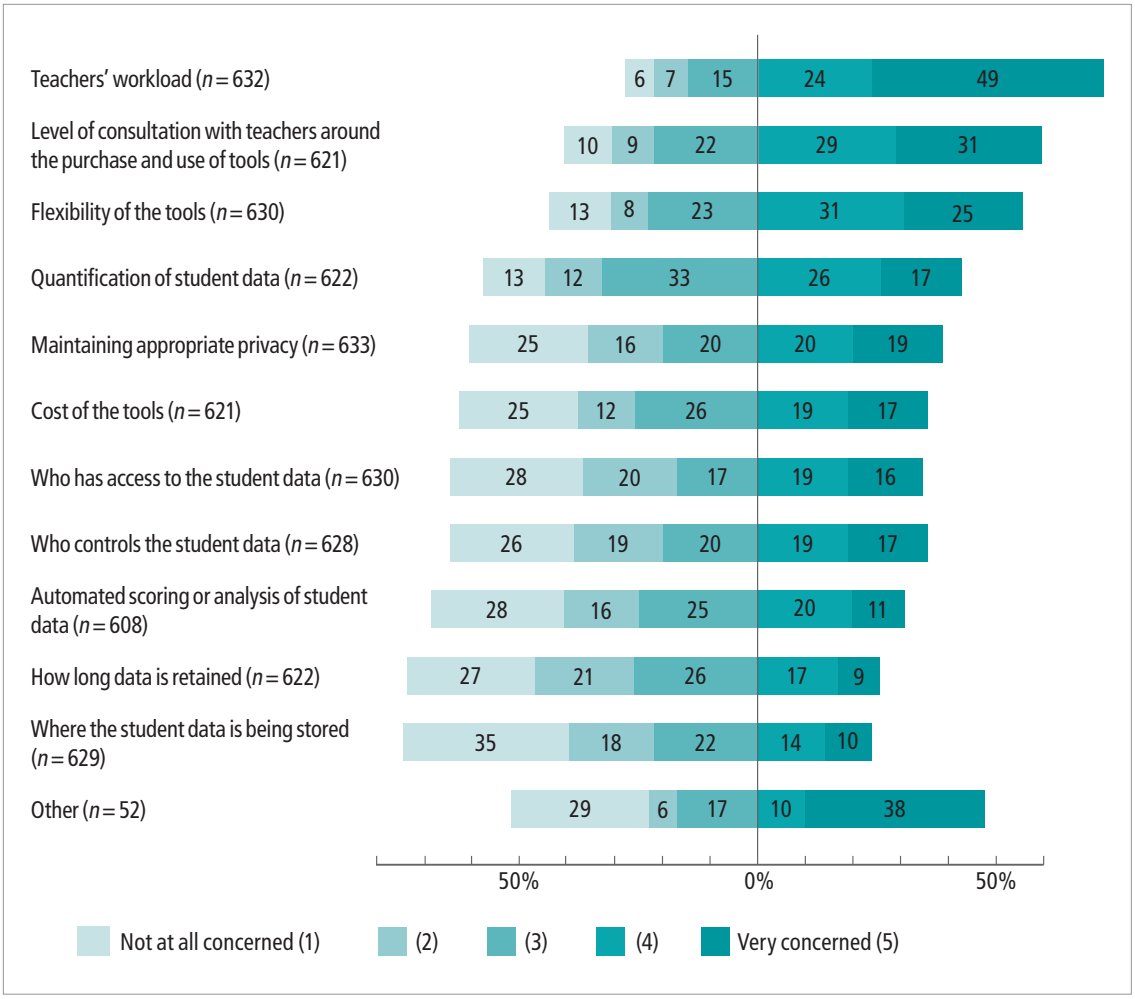

FIGURE 44. Concerns about issues related to digital reporting, assessment and portfolio tools.

Other concerns noted by survey respondents included the ease of use and integration of the tools, data use and privacy, the amount of learning and training required by these tools, and being subject to corporations' interests.[16]

Data Issues

As Figure 45 demonstrates, most of the survey participants believed that it was mostly teachers (91 per cent), school administration (91 per cent), parents (75 per cent), students (73 per cent) and district administration (69 per cent) who had access to stored data.

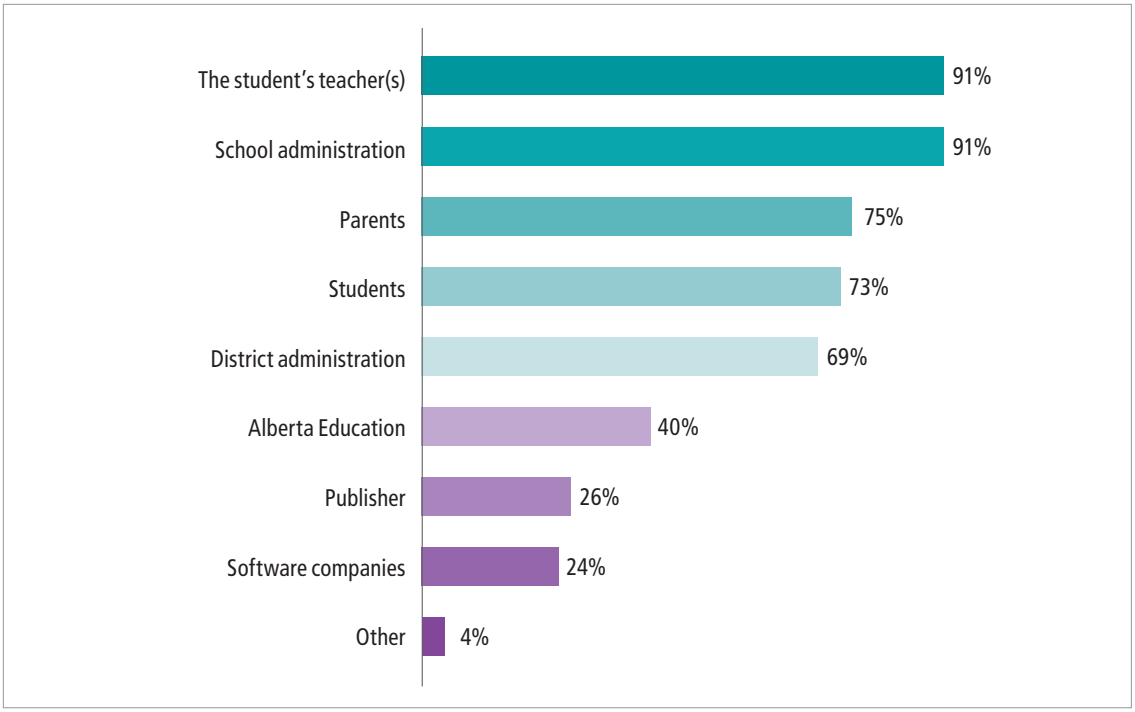

FIGURE 45. Beliefs about who has access to stored data (*n* = 639).

Parties listed by respondents who selected the "other" option included teachers, assistants, consultants and facilitators, as well as corporations, publishers and Internet providers.[17]

Provincial Government Moving from Print to Digital Resources and Assessments

Participants were divided as to whether their students' digital skills have affected their performance on digital assessments positively (31 per cent) or negatively (27 per cent). However, they were more likely to believe that implementing digitally based resources (36 per cent) and the government's decision to implement digital assessment (38 per cent) would affect student learning negatively. Figure 46 shows full details.

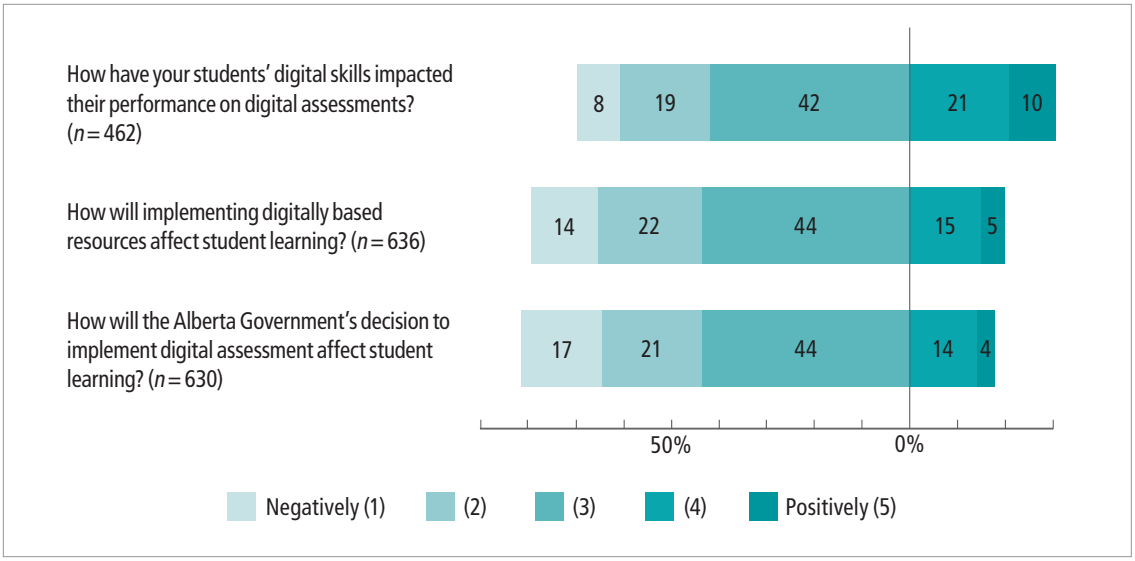

FIGURE 46. Impact of digital technology on student performance and learning.

Respondents provided additional open-ended feedback on how implementing digitally based resources would affect student learning. They frequently referred to issues related to access to information and technology, digital literacy and learning (for students, parents and teachers). Participants also mentioned that physical/paper resources are vital for learning fundamental skills and problem solving, and that there needs to be a balance as digital resources do not complement all learning styles.[18]

Survey participants then provided additional feedback on how the Alberta government's decision to implement digital assessment would affect student learning. Participants noted that students' preference for pen-and-paper tests and their inability to annotate during exams led to increased stress levels. They also indicated that students with limited computer or Internet access and digital literacy skills were at a disadvantage. Participants also mentioned that digital assessment may not be the most accurate qualitative assessment for certain subjects, adding that the government needs to ensure that all schools have sufficient computers and appropriate and functional technology and software to prevent technological errors from affecting assessment results. User error and concerns about screen time were listed as well.[19]

Survey respondents were asked to provide additional comments about digital reporting, assessment and portfolio tools or about any other aspect of this survey. By far the most frequent comments addressed varying digital literacy skills and limited access to computers or Internet for students, teachers and schools. Participants also mentioned program performance, compatibility and network inconsistencies as issues that commonly led to user error. They also commented that the added workload related to digital learning, teaching and assessment was very time-consuming for teachers, as well as for students.

Also cited were concerns about screen time, the quality of assessment, privacy of data and cheating. In addition, participants indicated that the ease of access had improved student–teacher–parent communication and engagement. Table 9 shows the coded comments in detail.

TABLE 9. Additional Comments About Digital Reporting, Assessment and Portfolio Tools, or Any Other Aspects of the Survey

Category of comment	Number of responses	Exemplary comments
Digital literacy varies, and access to computers or the Internet is limited for many students, teachers and schools	51	• "Technology can play a supporting role in student education. I believe care needs to be taken to teach students how to use technology effectively, efficiently, and at the right time. Many students are proficient at learning how new technology works, but fail when it requires them to problem solve or use an alternative to digital technology that might be quicker or more effective." • "Technology scarcity is a real problem in many schools so implementing more mandated use of technology in school for things like government assessments will take away time from students learning skills to enhance their learning and other uses of technology. Also, there are some students that do not have the financial means to have computers at home so making more things technology based puts these students at a disadvantage."
Program performance inconsistencies, incompatibility and network issues; user error	29	• "High levels of stress are felt because we never know if the wifi will be consistent. What about dealing with cheating? Who owns these documents once they are uploaded to AB Learning?" • "The technology does not always work when the students are taking tests or working on programs. It ends up taking more time to complete something than was expected. It can be frustrating."

TABLE 9 (*continued*)

Category of comment	Number of responses	Exemplary comments
Very time-consuming for teachers and students; added workload	24	• "My students need a lot of support in the computer room. There are 21 of them and one of me. This often makes computer class one of the most stressful classes we encounter because they get frustrated when they have to wait so long. My students will click things without realizing they are clicking them, close the browser window by accident, etc. Digital assessment may be appropriate for older grades but not elementary school." • "Our school started using IRIS for IPPs, and it has been a faster system compared to SIRS. I have been worried that if we were to maintain digital portfolios for all the students this will result in increased workload as there is no time allocated for assessment and reporting in the school day/year."
Concerns about screen time and addiction to or reliance on technology	15	• "Students losing the ability to write (not type) are being impacted, grammar has suffered as 'auto-correct' is doing all of the 'thinking' for many of these students. The distraction of having a computer in front of the student has also become an issue (in addition to cell phones) as they have access to sites/games that they will often choose to visit vs working online." • "I support the use of digital resources that help students learn (e.g. Reflex Math, Raz Kids, etc.). We just have to be careful of how much screen time elementary students have as this can negatively affect them and their brain development."
Not an accurate method of qualitative assessment	14	• "My students do digital field tests every year. Without fail, their scores are lower, sometimes significantly so when using Quest A+. Also, current software is dismal at testing higher order thinking and concepts. Learning occurs when there are interactions. Ever try to have a talk with Siri?" • "A student who understands content may not be recognized if they are at a deficit with computer skills."

TABLE 9 (*continued*)

Category of comment	Number of responses	Exemplary comments
Concerns about privacy of student data and about cheating	11	• "Privacy issues. My colleague and I wanted to use SeeSaw, but were told that it was not approved by our district, because of privacy issues." • "There is always a way to find something once it is online, even in a google environment. Also secure assessments are no longer secure because students can screen save sections of the assessment and access them later. It is so much easier for students to cheat and when something is easy more of them try."
Improves teacher–student–parent communication and engagement	11	• "Quia has been very beneficial in building resources over several years. Collaboration and sharing of resources has been well maintained. I find no issues with student access as each user has a unique user name and password they access and can review past assessments. Teacher, student and students' parents can view results. Constant communication regarding progress on assessments via interim reports through Gradebook with PowerSchool, I believe, is more beneficial than spending a tremendous amount of time creating progress reports." • "Teaching Grade One, the use has been more for my own benefits and that of the parents as the students' digital skills are basic. For some it has helped them develop greatly digitally, for others it is still a big challenge. Overall, at this level it has greatly increased my workload but at the same time helped me provide a more targeted learning environment. Also, it has eased and improved the communication between home and school. At some point also, it has increased students' motivation."

TABLE 9 (*continued*)

Category of comment	Number of responses	Exemplary comments
Ease of access to assignments and grades	10	• "I have had very positive experiences with digital reporting. I use power school and find it very user friendly. I have also used portfolio tools in the past and really liked them. I thought they were a great way for parents to be involved in their child's learning." • "I like the access and speed of understanding data that is collected on students learning and progress with some of the tools that we are using: iDoceo, Prodigy, and Raz-Kids."
Does not work with all learning and teaching styles; decreases quality of learning	10	• "There are places for digital assessment but it should not be the only way for assessing students. The most important part of assessment is knowing where your students are at currently and helping them grow and learn from that point in time. Each student learns in different ways and each child should be supported in areas they are gifted in. Support needs to be placed on community learning and having more trained adults to assist with the diverse learning needs within the classroom. Focus on the way schools could learn how to help their students like the model used in Finland." • "Whoever is making these decisions must take into consideration how the move to digital will affect young students (Kindergarten, Grade One). Many are unable to read and write, but are required to demonstrate their learning through a digital media. As a result, it becomes a make-work project for the teacher."

Current Teaching and Learning Conditions

In relation to current teaching and learning conditions, respondents indicated the highest levels of satisfaction with access to computers and other information technology (53 per cent), access to print resources and textbooks (52 per cent), and access to professional development (50 per cent). The lowest levels of satisfaction related to requirements to supervise and undertake other assigned tasks (26 per cent), support for students with special needs (24 per cent) and background readiness skills students bring to learning (18 per cent). Full details are shown in Figure 47.

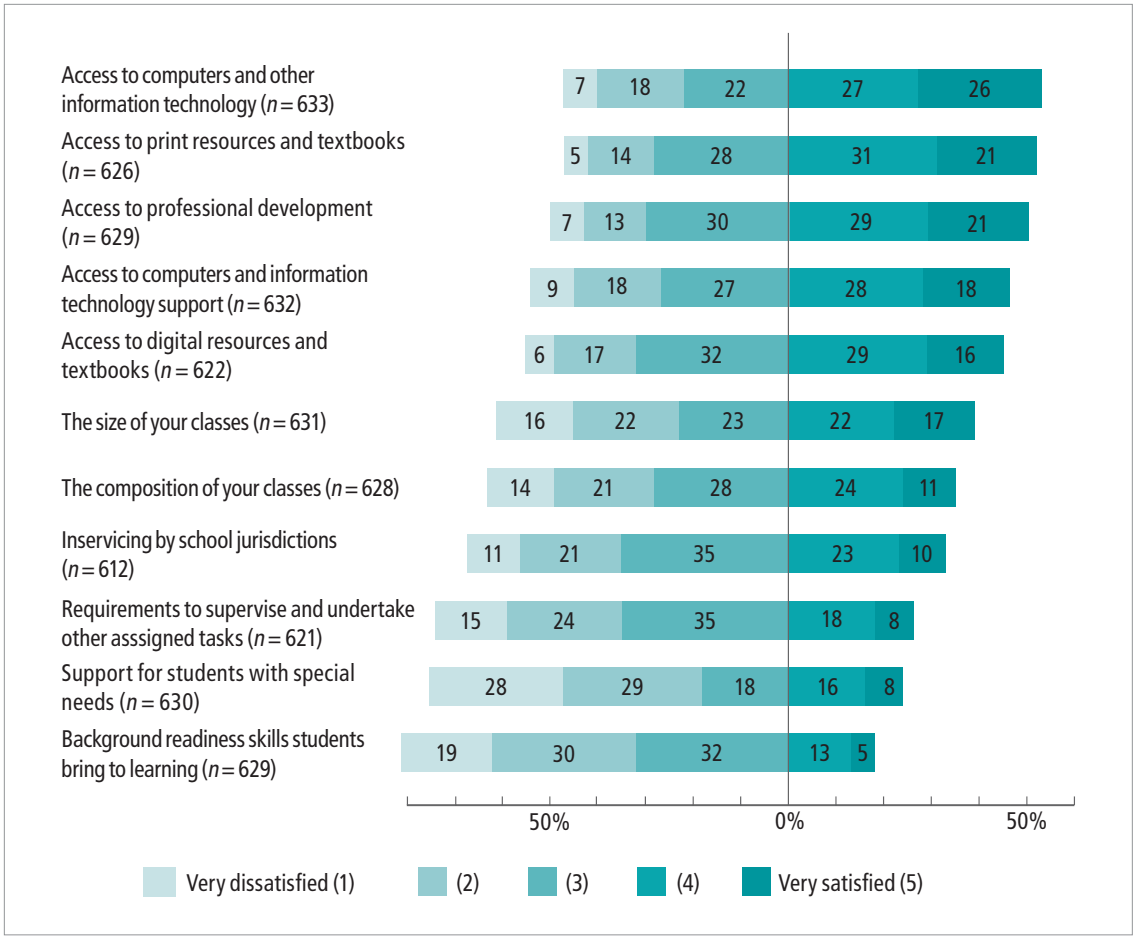

FIGURE 47. Satisfaction with working conditions.

Conclusion

Given the number of teachers and school leaders using, implementing or planning to implement digital reporting, assessment and portfolio tools, the ever-evolving effects of these tools on teaching and learning continue to demand examination. In particular, the capacity for such tools to support rather than constrain teacher judgment and autonomy in facilitating student learning must be considered if we are to avoid a reductionist approach to education in Alberta. These tools hold great potential in terms of communication and engagement, but significant concerns and questions related to the expectations and limitations placed on teachers, as well as on students, remain.

Appendix A: Responses in the "Other" Category Specified

TABLE A1. Current Designation—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Specific combination	15	• "A part time FSL teacher, and a substitute." • "Classroom, Off-campus, Dual Credit." • "Department Head and classroom teacher." • "Learning Coach, Student Services, and Teacher." • "Resource teacher and administrative duties."
Learning coach/ support	8	• "Learning Coach." • "Learning Leader."
Counsellor	7	• "Counsellor." • "Guidance Counsellor."
Inclusive education/ outreach	6	• "Inclusive Education Learning Coach." • "Inclusive Learning Facilitator."
Specialist	6	• "Mostly wood shop, some forestry." • "Specialty teacher."
Distance education teacher	5	• "Distance Education Teacher." • "Online and outreach teacher. No classroom situation."
Maternity/ disability leave	5	• "Maternity Leave." • "Secondment."
Temporary or part-time	3	• "Part-time teacher and substitute teacher."
Department head	2	• "Department Head."
Other	3	• "Forest school." • "Retired teacher."

TABLE A2. Current Assignment—Combinations Specified

Category	Number of responses	Category	Number of responses
Grades 7–12	31	Grades 7–9	5
Grades 3–4	11	Grades 4–9	4
Grades 9–12	11	Grades 5–9	4
ECS/kindergarten–Grade 9	9	Grades 6–7	4
ECS/kindergarten–Grade 6	8	ECS/kindergarten–Grade 3	3
Grades 1–6	8	Grades 6–12	3
ECS/kindergarten–Grade 12	7	Grades 8–12	3
ECS/kindergarten–Grade 4	6	Grades 1–5	2
Grades 1–12	6	Grades 2–3	2
Grades 6–8	5	Grades 5–8	2
		Other[1]	27

[1]ECS/kindergarten; ECS/kindergarten–Grade 1; ECS/kindergarten–Grade 11; ECS/kindergarten–Grade 2; ECS/kindergarten–Grade 8; ECS/kindergarten, Grades 6 and 8; Grades 1–2; Grades 1–8; Grades 1–9; Grades 1, 2, 5 and 7; Grade 1, Grades 4–7; Grades 10–12; Grades 2–6; Grade 2, Grades 4–11; Grades 4–12; Grades 4–8; Grades 5 and 6; Grades 5–12; Grade 5, Grades 7–9; Grades 6–9; Grades 6, 7 and 8; Grades 7 and 9; Grades 7–10; Grades 7–11; Grade 7, Grades 10–12; Grade 9; Grades 9, 11 and 12.

TABLE A3. Level of Stress Experienced While Following Reporting and Assessment Requirements—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Number of exams and assessments	15	• "Continued pressure to provide 'alternate assessments' and 'outcomes based assessment' and new exams every year." • "Having the wide variety of assessments ready for students who have accommodations." • "There is a HUGE workload put on teachers for all the assessments that need to be created, completed and assessed. Having report cards 3× a year is very stressful—especially since we continue to have to keep moving forward with curriculum and student assessment/feedback in a timely manner."
Interaction with parents	11	• "Constant parental contact on student activities." • "Parent teacher interviews should be student led. I also believe [percentages]/grades should be eliminated and replaced with qualitative methods." • "I'm not sure if this is an assessment, but it is required that we share information to the parents in regards to what is happening in the classroom. I share learning through a blog. I share links, pictures and information almost daily to my parents and students."
Technology issues and lack of training	11	• "Learning how to operate and implement digital resources takes an insane amount of time and it seems to be constantly changing which is very stressful. Every school and grade is different with different expectations as well. So being forced to change subjects or grade levels can be daunting just in the tech aspect alone. Some digital tools are very user-UNfriendly." • "Taking attendance does not work half the time in power school." • "The program (Teacher Logic) that we use for making report cards is the most stressful thing about my entire teaching career. The software is clunky, slow and wastes an astronomical amount of time."

TABLE A3 (*continued*)

Category of comment	Number of responses	Exemplary comments
Increased data input and tracking	9	• "Continuously inputting marks into digital reporting tools, as well as inconsistency between teachers of same courses." • "Data input to Teacher Logic and other programs." • "Keeping up with Power School and the amount of information we are required to enter."
Increased demand for comments and documentation	8	• "Completing and maintaining anecdotal notes on students with disruptive behaviour." • "High school report card comments are EXTREMELY time consuming and are completely unnecessary given parents access to online grading." • "Overly detailed and complex report cards requiring many hours of time for a document a high percentage of parents don't understand or don't care about. So who are they for?"
Increased administrative work	7	• "As a principal, teacher evaluation." • "Completing a plethora [of] off campus forms and making sure they are properly filled out, signed, and in for trips, RAP, career internship and work experience programs." • "The CBE and administrators are requesting more after school hours for meeting to plan for school activities and planning for student learning."
EYE (Early Years Evaluation)	6	• "Early Years Evaluation (EYE-TA) teacher assessment for Kindergarten children—very time consuming." • "E.Y.E. Reports."
Wide variety of tools and activities	5	• "It's the duplication of work, so report cards and online assessment, parents need to choose 1 way or the other to receive information." • "Insufficient teacher time to prepare specialized reports for special needs students, meet with specialists, parents, complete diagnostic assessment, design special curricula accommodations, prep and plan for EA, AND teach a regular class of 28 students. NO TIME!"

TABLE A3 (*continued*)

Category of comment	Number of responses	Exemplary comments
ELL (English-language learner)/language proficiency tests	5	• "ELL Proficiency Benchmarks." • "Board-required reading evaluations (F and P for English students and GB+ for French immersion students) too soon into the school year."
Issues related to special education	5	• "Preparing the specifics lessons for special ed kids is a VERY HIGH level of stress." • "Special Education applications such as visual impaired apps."
Increased workload	4	• "Stress is related to meeting deadlines and to a quantity of work, not the quality of work." • "The highest amount of stress for me is NOT the marking and evaluation (which is difficult!), but the sheer volume of work that requires assessment. Over the past decade I have seen teacher prep time decrease, while student numbers in classes have increased, adding to the work load of the teacher. With less prep time, that means I am taking more work home with me than ever. On a prepless semester, I am often marking assignments or labs until midnight."
Student-related issues	4	• "Dealing with students that do not complete assignments, attend school and need intervention creates the most amount of stress and extra time for me as the Board expects me to make this student achieve and succeed!!" • "Not being able to give zeros or D's to students who hardly ever show up and/or only have failing grades, but still having to give them a passing grade."
Iris	3	• "Documentation in Iris."
Generic positive comment	2	• "Anything that makes students more accountable improves student motivation to learn (in most cases)."
Large class sizes	2	• "All of the above with relation to class size (avg 35+ with inclusion and no aides)."

TABLE A3 (*continued*)

Category of comment	Number of responses	Exemplary comments
Other	7	• "A profession carries a certain amount of stress; how stressed you get is up to the individual and not the job. This question has potential to be misused!" • "For a while we had Evidence of Learning 'binders' and the amount of time it took to prepare those was huge. We have since moved away from that but flashbacks to the amount of work are overwhelming." • "'Active supervision' in a one-teacher school."

TABLE A4. Digital Reporting Tools Primarily Used—"Other" Specified

Category	Number of responses
eLuminate	11
Genius	10
PowerSchool	8
SIRS/Iris	3
Gradebook	3
Other[1]	6

[1]FreshGrade, Moodle, Planbook, STARS, StudentsAchieve and Weebly.

TABLE A5. Digital Reporting Tools Respondents Were Planning to Use—"Other" Specified

Category	Number of responses
FreshGrade	1
SchoolZone	1

TABLE A6. Way in Which the Use of Digital Reporting Tools Was Determined—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Combination	4	• "It was mandated, then removed and reverted back to teacher logic in the last year." • "Some are mandates, some are optional, and some are not available for my classes."
Always been there/ replacement	3	• "It's always been a part of my instruction/reporting practice since I began teaching at this school." • "Ours was developed to replace our old system (STAR) to make us PASI compliant."
Committee	2	• "I believe that our district had a committee of teachers who chose the program."
Other	2	• "Just provided a way for parents to access report card digitally."

TABLE A7. Reports Provided to Parents During the School Year—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Conferences, interviews and meetings	39	• "Informal meetings with parents to discuss students' progress particularly with students pursuing the pre-apprenticeship program." • "Face to face conferences with parents." • "Meet the Teacher Conferences in Sept and Student Led Conferences with an opportunity for parents to have discussions with teacher in March." • "Parent teacher interviews." • "Parent–Teacher Conferences, parent council grade team presentation, celebration of learning, blogs." • "Student Led Conferences—once a year."

TABLE A7 (*continued*)

Category of comment	Number of responses	Exemplary comments
Specialty reports (LSP, IPP, ESL, IEP)	32	• "ESL/ELL." • "Individual Support Plans." • "IPP, BSP, MSP, Success in Schools." • "Psychology, SLP, OT, PT and Behavioural reports." • "Other Formal Reports to Parents: Students that are on Individual Student Programs will be reviewed with parents 3× a year."
Phone calls and e-mails	24	• "A few times a year I send parents a letter with classroom rubric for literacy skills for their child. As well, I call them a few times or more if necessary." • "Emails are regularly sent to parents in order to inform them of their child's progress." • "Phone calls home when required regarding attendance and performance." • "Weekly emails and phone calls."
Marks/grades updates	11	• "Instead of report cards, students have access to their up to date marks at any time in our courses." • "No printed report cards except at end of year or by parent request. Required to update grade book every 10 days." • "One final grade communication when students complete the course."
Digital reporting tool reports	11	• "Formative Assessments—through Power School." • "D2L bright space reporting/comment for every assessment." • "Parents have ongoing access to student login information, progress and assignment feedback through Moodle if requested."
Newsletters	7	• "Curriculum Newsletters." • "Monthly newsletter—only describes what class is doing that month (optional)."
Portfolios	5	• "Portfolio reviews." • "Send home portfolio monthly."

TABLE A7 (*continued*)

Category of comment	Number of responses	Exemplary comments
Interim reports	3	• "Interim reports are uploaded to School Zone monthly."
Social media	2	• "Facebook updates, twitter, emails."
Other	14	• "Blogging is now an expectation." • "Weekly what I have learned worksheets." • "Shared SLA results with parents." • "Weekly summaries, monthly course summary sheets."

TABLE A8. Digital Assessment Tools Primarily Used—"Other" Specified

Category	Number of responses	Category	Number of responses
IXL	10	Quizlet	3
Prodigy	10	Math XL	2
Google Classroom/forms	7	Duolingo	2
Not currently using	5	MIPI	2
Imagine	5	Moodle	2
Kahoot	5	Pear Deck	2
STAR	5	Plickers	2
Reflex	4	ReadTheory	2
Dora	3	Other[1]	18

[1]ABC YA, Codecademy, Content Connections, Early Years Evaluation, EDpuzzle, EYE for Kindergarten, Fast ForWord, Iris, Math Facts Pro, Netmath, Online Safety in Schools assessments, online Construction Safety Training Systems cards for HCS 3000 credit, online courses by Job Safety Skills, Quia, Quizlet, Socrative, READ 180, Seesaw, Solaro, Splash Math and Sum Dog.

TABLE A9. Digital Assessment Tools Respondents Were Planning to Use—"Other" Specified

Category	Number of responses
IXL	1
MAC II for ELL	1
Prodigy	1

TABLE A10. Way in Which the Use of Digital Assessment Tools Was Determined—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Combination	5	• "Classroom-Specific and Teacher-Driven." • "Successmaker is mandated; Raz-kids and Mathletics are optional at my school."
Specific use	4	• "On my own." • "Students who need extra support in literacy receive the digital tools to use."

TABLE A11. Digital Portfolio Platforms Primarily Used—"Other" Specified

Category	Number of responses
Iris	11
myBlueprint	6
Google	5
Bloomz	4
Moodle	3
Other[1]	7

[1]D2L, EasyBlog, Edublogs, Microsoft OneNote, school portal, Teacher Dashboard and Seesaw.

TABLE A12. Digital Portfolio Platforms Respondents Were Planning to Use—"Other" Specified

Category	Number of responses
Iris	3
CSL	2
Other[1]	7

[1]Appletree, Brightspace D2L, Classcraft, creating our own on Google Sites, Learning Wall, myBlueprint and Office 365.

TABLE A13. Way in Which the Use of Digital Portfolio Platforms Was Determined—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Teacher decision to use	3	• "Our division became a Google Apps district but it is still up to individual teachers whether they actually use those resources."
Combination	2	• "Some mandated and some optional."
Other	3	• "Currently piloting freshgrade."

TABLE A14. Extent of Use of Digital Portfolio Platforms—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Communicate with parents	11	• "Communicate with parents and track progress." • "Regular communication with parents." • "To message parents instead of texting or calling."
Collaboration or sharing with students	8	• "Provide homework for students not in class." • "To share classroom documents with my students and to share and comment on their documents." • Scrapbook of learning and website skills."
Assessing and tracking student work	5	• "Assessing student work." • "To track student growth over time."
Fomenting self-assessment and learning	5	• "Support a goal setting and accountability piece." • "To enrich and/or supplement learning as needed.
Other	1	• "Career pathways."

TABLE A15. Concerns About Issues Related to Digital Reporting, Assessment and Portfolio Tools—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Workload	10	• "The increase in workload is a huge concern amongst my colleagues." • "What is the benefit of the extra work and how does it replace the older version of the same work?" • "Every digital tool we are told to use adds to our at-home work time because we cannot access them at school."
Ease of use and integration	10	• "How easy/efficient the tools are to use across ALL courses and curriculums (gradebook and CTS do not work well together)." • "We don't use Iris. We are still on SIRS and it is the worst. Slow, outdated archaic program." • "We have tried things like successmaker and there are too many issues with the technology."

TABLE A15 (*continued*)

Category of comment	Number of responses	Exemplary comments
Data use and privacy	9	• "Can data follow students when they leave the school or district?" • "Encouraging students to keep digital copies does lend itself to plagiarism, and this is my main concern." • "Getting parental permission, FOIPP issues, protecting my information and presence online, location/country of the stored data."
Learning and training required	7	• "Amount of practice and quality of one-on-one PD required to learn the software." • "Constantly changing programs is very frustrat[ing]. . . . In another three years a new reporting system, portfolio system, etc. will be invented and we will change AGAIN!"
Corporations' interests	2	• "Google tools are good, but they are still a third party, non-Alberta private business, accountable only to their shareholders. Their interests in the end are economic. If Google starts figuring out the costs are not recoverable, the cheap tools end. Or every lesson begins with a 15s CandyCrush video."
Other	4	• "Retired teacher. Not in the school system any longer." • "What are the primary objectives of the tool. I would like very precise, exact answers."

TABLE A16. Beliefs About Who Has Access to Stored Data—"Other" Specified

Category of comment	Number of responses	Exemplary comments
Teachers, assistants, consultants and facilitators	7	• "Consultants." • "Educational Assistants." • "Facilitators."

TABLE A16 (*continued*)

Category of comment	Number of responses	Exemplary comments
Corporations, publishers and Internet providers	6	• "Concerned that publishers (eg, Pearson, STAR) have and maintain a 'back door' way of using and analyzing student data. Concern that this may contribute to 'big data' rather than be used locally for 'small data.'" • "Publisher and software companies to a certain degree to improve the programs."
Hackers	3	• "Computer hackers."
Depends/not sure	2	• "Who ever the teacher invites to share the data."
Other	4	• "Peers due to students sharing too much, especially when they are young and don't see any downside to doing so." • "The advertising to students is a serious breach in FOIP."

TABLE A17. Impact of Implementing Digitally Based Resources on Student Learning—Additional Feedback

Category of comment	Number of responses	Exemplary comments
Improved access, digital literacy and learning for students, parents and teachers	60	• "Access from anywhere at any time would enhance student learning. If they need support right now they have to go into an open area to seek it out. An online platform could help them to remain anonymous." • "I think having resources digitally makes them more accessible to remote/rural areas. We just need to make sure that our teachers are knowledgeable in how to access and implement these resources. Also need to make sure all schools have the internet/bandwidth accessibility to make the use of resources successful."

TABLE A17 (*continued*)

Category of comment	Number of responses	Exemplary comments
Not all have consistent access to the Internet, tech and digital literacy	56	• "Digital doesn't work for all. I'm in a rural school where some families don't have internet." • "Print resources are still crucial for some Alberta students. Not everyone in this province has access to high-speed Internet, computers or other devices. Some students, due to religious or other reasons, cannot use technology (Hutterites), yet some of them want to pursue school beyond age 15. They need print resources to do that! Plus, the technology for online courses still does not permit parents or other facilitators to look at the course (without using a student's login info) and assist the student whereas they can do this with print."
Students need fundamental skills (such as writing) before digital—there needs to be a balance	45	• "Technology can be a great success for students[;] however[,] many students need fundamental skills before technology can be introduced. If technology is provided without basic skills it can hinder their development (e.g. a student cannot print legibly but can type successfully; printing should come before typing performance)." • "Students need a balanced learning format, meaning they need a combination which includes paper resources. Students need the practice of writing and using paper just as much as digitally. Especially as they practice digitally at home, but less and less using paper resources. By making the resources digital in order for teachers to have easier access and able to make paper resources would be amazingly helpful and a great positive impact on student learning."

TABLE A17 (*continued*)

Category of comment	Number of responses	Exemplary comments
Physical/paper resources are vital for learning and problem solving	43	• "A large amount of students prefer pencil and paper when they get into the later grades (div 3 and 4). I have access to computers and online tools but often have students ask if I can print the test or the assignment instead of providing it digitally." • "As an ELA teacher, it has been proven that students learn and retain information when it is presented in a print form. Not all students are technologically advanced unless texting, Instagram, Facebook, twitter are considered skills that will assist students with digitally based resources."
Does not work with all learning styles	36	• "I strongly believe there should be both digital and print resources available. Supports and Learning Resource Centres will still be needed very much. Technology can fail and it doesn't work perfectly. Digital learning should not replace real life learning. It should only be an addition/ alternative. How will be kinesthetic learners' needs met?" • "Not all students learn best on a computer. Most need the physical materials to manipulate that a computer does not provide."
Positive as long as software and networks are current and working properly and consistently	28	• "As long as the infrastructure is in place prior to switching. Strong, consistent, wireless and up to date tech is essential. Too often changes are made and school/teachers are not equipped to do it well. Cart before horse." • "We are always at the mercy of the whims of technology. Digital info, resources, data can easily be lost or deleted. Technology often has glitches, malfunctions. Therefore you always need a backup plan."
May lead to loss of skills: communication, social, research, grammar	23	• "Communication and social interaction will always be an important part of student learning. This is something the digital world cannot offer or teach." • "If students are not provided the opportunity to learn how to research and access information there will be far less curiosity and exploration and rapid access to accurate reliable materials and information."

TABLE A17 (*continued*)

Category of comment	Number of responses	Exemplary comments
May compromise accurate assessment of student performance	16	• "Using the computer takes skill and is difficult for many of my students. The amount of help they require versus the amount of support I can provide them in the class would lead to inaccurate results on assessments. Also, student apathy may affect their responses more than a paper copy where they can see they did not answer questions." • "The focus will be on assessments. No focus on behaviour and working together. Classroom management and behaviours of students will be neglected. We are a district that talks about the development of the whole student. If we focus on digital we are neglecting the whole student."
Better communication between teachers, students and parents	10	• "Digital reporting can and should be productivity enhancers once learned and implemented well. The immediacy of reporting should enhance student feedback and parental feedback to track progress and set good learning goals." • "Gives parents an opportunity to see child's work anytime. Especially those parents who cannot make it to parent/teacher interviews or student-led conferences."

TABLE A18. Impact of the Government's Decision to Implement Digital Assessment on Student Learning—Additional Feedback

Category of comment	Number of responses	Exemplary comments
Students' preference for pen-and-paper tests—less stressful and better learning	71	• "As a grade 12 teacher, most of my students elect to hand write their essays and being able to write in the reading comprehension portion of the exam allows them to actively read and make notes before they answer the questions." • "Brain research has demonstrated that physical interaction with text improves our understanding and memory of its content. Losing access to physical texts disadvantages students, even if they do not realize it. They should be able to annotate their texts."

TABLE A18 (*continued*)

Category of comment	Number of responses	Exemplary comments
Students with limited access and digital literacy issues at a disadvantage	68	• "Digital skills amongst students is unequal based on the varied exposure children have to technology. For a student who has limited exposure, due to . . . no technology at home or limited access in the classroom, the digital aspect of the assessment will be an additional stress which will therefore impact the assessment outcome of the pedagogical skill being evaluated." • "I don't think it will increase it in major ways unless parents finally feel a part of their kids' schooling. I'm worried that a small level of polarization will also be evident, wherein some non-tech users will feel ostracized and perform poorer, as less help is offered at home."
Government needs to ensure that tech and software are secure and working properly (no glitches or errors) and that schools have enough computers for students	50	• "Students are already stressed about these exams. Add to that the stress of having computers crash, lose information, have timed exams that delay because of band-width, etc. I have done PAT field tests on the computers and it was a nightmare. A number of students couldn't get in and we had to deal with people off-site to gain access. Students got 'kicked out' of the tests, and then may or may not have been able to pick up where they left off. When they couldn't pick up where they left off, they were unable to complete the exam in time. The split screen doesn't work for many kids, and they can't write on the exams using the strategies that they have been taught (such as underlining, elimination of choices, etc.). This is also an issue for students who are not comfortable using the computer for things, for a variety of reasons. With that kind of 'screen-time,' I have had students get headaches. A paper copy in front of them guarantees consistency for all students." • "A lot needs to be done to ensure that Quest A plus works for exams and to ensure the security of exams. Will there be enough secured computers available to students for exams? Will the site or internet connection in a school crash with so many students accessing Quest A plus? What are we doing to ensure that students are using secured browsers if we go the BYOD route?"

TABLE A18 (*continued*)

Category of comment	Number of responses	Exemplary comments
Not an accurate method of qualitative assessment	41	• "Computers can assess what computers can do: follow the algorithms. Digital assessment targets lower level cognitive skills, does not promote flexible thinking, critical thinking and problem solving." • "Even though many students are used to reading off an electronic screen, I believe the paper copy provides the better testing environment. Having a paper copy to refer back to and actually make notes on helps students become meta-cognitive learners. Students often write their 'thinking' on a paper copy—e.g. underline key words or cross off answers they don't want, show work for equations. I rarely see students read an electronic copy and take notes or record useful passages."
Easier to administer and assess	32	• "It should save a lot of money in publishing/printing costs and marking. Hopefully this money will not go into someone's paycheque and will be spent on resources for schools. I think the results of the marking would be available almost immediately." • "Today's students are comfortable with digital resources so I think digital assessments could possibly align with the strengths and expectations of the students."
User error—students may not use the tool correctly and may make mistakes	20	• "I know from talking with grade 3 teachers and/or during supervision of a test in the past that students do not pay enough attention and click past questions, randomly select answer and/or lose interest quickly during digital assessment." • "I think there is more to go wrong when answering tests digitally: students may mistakenly code an answer incorrectly, data may get lost, power may turn off mid-assessment."

TABLE A18 (*continued*)

Category of comment	Number of responses	Exemplary comments
Concerns about screen time and eye stress	14	• "For the English 30-1/-2 Reading Comprehensions reading complex texts on the screen is often detrimental and challenging for students who have only read short texts online. We'll need to bring in sustained digital reading, supported throughout all grades. Access to laptops/iPads/ etc must become one to one for every student for this to truly work." • "More screen time—I don't think an increase in screen time for students is good—they have lots at school and then at home and I wonder about the amount of screen time kids should be exposed to."

Appendix B: Survey

2017 RESEARCH STUDY OF DIGITAL REPORTING, ASSESSMENT AND PORTFOLIO TOOLS

Overview

The Alberta Teachers' Association, in collaboration with researchers from the University of Alberta, is researching the perceived value and impact of digital reporting, assessment and portfolio tools, their use in tracking and documenting student learning, and overall changes to assessment practices across the province.

This is the fourth study the Association has undertaken over the past decade to understand the perceived value and impact of these digital tools for professional practice.

Your participation in this survey as a certificated Alberta teacher is important to understand the scope of changes occurring in Alberta's various learning environments.

About the Survey

This survey should take 15 to 20 minutes to complete and is voluntary. You are free to skip questions. There are no known risks associated with participating in this study.

As an incentive to participate in this survey you will have the opportunity to be entered into a draw for one of five prepaid $100 gift cards.

As used in this survey, the term digital reporting refers to software or platforms (such as PowerSchool, Iris, Maplewood, Teacher Logic, School Zone, Brightspace) that facilitates the gathering and analysis of student data in order to report student progress.

The term digital assessment refers to software or platforms (such as Mathletics, SuccessMaker, Dreambox Learning Math and Raz-Kids Reading) that serves as an interactive teaching or tutoring program. Digital assessment is also known as adaptive learning and/or real-time assessment.

The term digital portfolios refers to software or platforms (such as Google Apps for Education, FreshGrade, Class Dojo, and SeeSaw) that track, document, assess and report student activities and behaviour within the learning environment.

Research Ethics

All responses will be kept confidential, and only aggregate data will be reported. No data from open-ended questions that could identify individual respondents will be used without permission. Researchers from the University of Alberta will analyze the data and provide a report to the Alberta Teachers' Association. The results may also be presented at academic conferences or published in academic journals. Researchers from the University of Alberta will securely store any information collected from you for a minimum of five years.

You can withdraw from the survey at any time up until you click the "Submit" button at the end. There are no known risks associated with participating in this study. If you have recently completed this survey, we thank you and you do not need to complete it a second time.

If you have any questions about this survey, contact Jason Daniels by email at jason.daniels@ualberta.ca or by phone at 780-492-6332.

A Research Ethics Board at the University of Alberta has reviewed the plan for this study to ensure that it adheres to ethical guidelines. Questions about participants' rights and the ethical conduct of research should be directed to the Research Ethics Office at 780-492-2615.

Continuing with this survey implies consent to participate.

Once again, participation in this survey is voluntary.

A. GENERAL STUDENT REPORTING AND ASSESSMENT REQUIREMENTS

A1. How confident are you that digital reporting tools (i.e., software programs or platforms for reporting student progress such as PowerSchool, Iris, Maplewood, Teacher Logic, School Zone, Brightspace) are improving your students' learning?

Not confident at all (1)	(2)	(3)	(4)	Very confident (5)	N/A
☐	☐	☐	☐	☐	☐

A2. How confident are you that digital assessment tools (i.e., software or platforms that serve as an interactive teaching or tutoring program such as Mathletics, SuccessMaker, Dreambox Learning Math and Raz-Kids Reading) are improving your students' learning?

Not confident at all (1)	(2)	(3)	(4)	Very confident (5)	N/A
☐	☐	☐	☐	☐	☐

A3. How confident are you that digital portfolio tools (i.e., software or platforms that track, document, assess and report student activities and behaviour within the learning environment such as Google Apps for Education, FreshGrade, Class Dojo, and SeeSaw) are improving your students' learning and/or behaviour?

Not confident at all (1)	(2)	(3)	(4)	Very confident (5)	N/A
☐	☐	☐	☐	☐	☐

A4. Use the scale below to describe the overall impact the following have had on student learning.

	Very low (1)	(2)	(3)	(4)	Very high (5)	N/A
District policies and expectations to track and/or report student progress to parents.	☐	☐	☐	☐	☐	☐
School policies and expectations to track and/or report student progress to parents.	☐	☐	☐	☐	☐	☐
Student-led conferences.	☐	☐	☐	☐	☐	☐

	Very low (1)	**(2)**	**(3)**	**(4)**	Very high (5)	N/A
Provincial achievement testing (Gr 6 and 9).	☐	☐	☐	☐	☐	☐
Provincial Student Learning Assessment—SLA (Gr 3).	☐	☐	☐	☐	☐	☐
Diploma examinations.	☐	☐	☐	☐	☐	☐
Digital reporting, assessment and/or portfolio tools.	☐	☐	☐	☐	☐	☐

A5. Use the scale below to describe the level of stress you experience in carrying out the following student reporting and assessment requirements.

	Very low (1)	**(2)**	**(3)**	**(4)**	Very high (5)	N/A
Completing Individual Program Plans (IPPs).	☐	☐	☐	☐	☐	☐
Marking and evaluating student work.	☐	☐	☐	☐	☐	☐
Developing classroom-based assessments.	☐	☐	☐	☐	☐	☐
Administering and supervising provincial examinations.	☐	☐	☐	☐	☐	☐
Analyzing student/school results of provincial examinations.	☐	☐	☐	☐	☐	☐
Preparing report cards.	☐	☐	☐	☐	☐	☐

Other (please specify below):

B. DIGITAL REPORTING TOOLS [E.G., POWERSCHOOL, IRIS, MAPLEWOOD, TEACHER LOGIC, SCHOOL ZONE, BRIGHTSPACE)

A wide variety of digital tools are currently used to prepare student progress reports. Based on your experience in your school and/or jurisdiction with the particular digital tools you use, respond to the following questions.

B1. Do you currently use or are you planning to use digital reporting tools in your classroom/school?

- ☐ Yes, we are currently using or implementing digital reporting tools.
- ☐ Yes, we are planning to implement digital reporting tools in the future.
- ☐ No.
- ☐ Not sure.

B2. What is the name of the digital reporting tool you primarily use to prepare student reports or communicate student progress?

- ☐ Students Achieve
- ☐ School Zone
- ☐ Brightspace by D2L
- ☐ PowerSchool
- ☐ eLuminate
- ☐ TeacherLogic/SIRS
- ☐ Iris
- ☐ Maplewood
- ☐ Other (please specify): _____

B2. What is the name of the digital reporting tool you are planning to use to prepare student reports or communicate student progress?

- ☐ Students Achieve
- ☐ School Zone
- ☐ Brightspace by D2L
- ☐ PowerSchool
- ☐ eLuminate
- ☐ TeacherLogic/SIRS
- ☐ Iris
- ☐ Maplewood
- ☐ Other (please specify): _____
- ☐ I don't know

B3. To what extent has the use of digital reporting tools:

	Not at all (1)	**(2)**	**(3)**	**(4)**	Very much (5)	Not sure
Improved the level of instruction and assessment in your classroom?	☐	☐	☐	☐	☐	☐
Facilitated and improved communication with students?	☐	☐	☐	☐	☐	☐
Facilitated and improved communication with parents?	☐	☐	☐	☐	☐	☐
Aligned with the Alberta program of studies?	☐	☐	☐	☐	☐	☐
Increased your efficacy (confidence and competence) in assessing students' learning?	☐	☐	☐	☐	☐	☐
Enhanced professional practice?	☐	☐	☐	☐	☐	☐

B4. How would you rate the following sources of support?

	Very poor (1)	(2)	(3)	(4)	Very good (5)	N/A
The professional development and/or school jurisdiction inservicing available to you initially when learning to use this reporting tool?	☐	☐	☐	☐	☐	☐
The technical support currently available to you as you use this reporting tool?	☐	☐	☐	☐	☐	☐

B5. How much input did you have in choosing and implementing this/these reporting tool(s)?

No input at all (1)	(2)	(3)	(4)	A great deal of input (5)	N/A
☐	☐	☐	☐	☐	☐

B6. Which of the following best describes how the use of the digital reporting tool was determined for your class(es)?

- ☐ Mandated
- ☐ Provide with limited options
- ☐ Totally optional
- ☐ Not available for my class(es)
- ☐ Other (please specify): _____

B7. How has the use of this digital reporting tool changed your workload as a classroom teacher?

Significantly increased workload (1)	(2)	Not changed workload (3)	(4)	Significantly decreased workload (5)	N/A
☐	☐	☐	☐	☐	☐

B8. How has the use of digital reporting changed parental expectations with respect to the frequency of reporting?

Significantly increased parental reporting expectations (1)	**(2)**	Not changed parental reporting expectations **(3)**	**(4)**	Significantly decreased parental reporting expectations (5)	N/A
☐	☐	☐	☐	☐	☐

B9. How has the adoption of digital reporting affected the amount of time you spend tracking and/or reporting student progress?

Significantly increased time (1)	**(2)**	Not changed time **(3)**	**(4)**	Significantly decreased time (5)	N/A
☐	☐	☐	☐	☐	☐

B10. How much flexibility do you have within the digital reporting tool to render your professional judgement of student performance?

Little or no flexibility (1)	**(2)**	**(3)**	**(4)**	A great deal of flexibility (5)	N/A
☐	☐	☐	☐	☐	☐

B11. How many of the following reports to parents does your school provide during the school year?

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	9	10	Ongoing
Report cards	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other formal reports to parents	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Informal reports to parents	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Please specify other reports: _____

B11a. Are these reports provided online, on paper, and/or orally (select all that apply)?

	Online	On Paper	Orally
Report cards	☐	☐	☐
Other formal (documented) reports to parents	☐	☐	☐
Informal reports to parents	☐	☐	☐
Other (please specify below):	☐	☐	☐

B12. How many times during the school year are you formally required to contact your students' parents/guardians?

B13. What percentage of parents do you estimate regularly (i.e., at least once a week), check into the online reporting tool?

B14. Thinking back, can you recall a specific occasion where digital reporting appeared to have a positive impact on a student or students? Please describe.

B15. Thinking back, can you recall a specific occasion where digital reporting appeared to have a negative impact on a student or students? Please describe.

C. DIGITAL ASSESSMENT TOOLS [E.G., MATHLETICS, SUCCESSMAKER, DREAMBOX LEARNING MATH AND RAZ-KIDS READING]

New digital programs are increasingly being used in the diagnostics, adaptive, and real-time assessment of student learning. Based on your experience in your school and/or jurisdiction, please respond to the following questions.

C1. Do you currently use (or are you planning to use) diagnostics, adaptive, and real-time assessment tools in your classroom/school? (e.g., Mathletics, Dreambox)

- ☐ Yes, we are currently using or implementing a digital assessment tool.
- ☐ Yes, we are planning to implement a digital assessment tool in the future.
- ☐ No.
- ☐ Not sure.

C2. Which of the following diagnostics, adaptive, and real-time assessment tools do you use?

- ☐ Mathletics
- ☐ SuccessMaker
- ☐ Dreambox Learning Math
- ☐ Accelerated Reader Enterprise
- ☐ Raz-Kids Reading
- ☐ Reading Eggs
- ☐ Brightspace by D2L
- ☐ Senteo
- ☐ Smart Response
- ☐ Cat4
- ☐ Socrative
- ☐ Khan Academy
- ☐ Other (please specify): _____
- ☐ I don't know

C2. Which of the following diagnostics, adaptive, and real-time assessment tools are you planning to use?

- ☐ Mathletics
- ☐ SuccessMaker
- ☐ Dreambox Learning Math
- ☐ Accelerated Reader Enterprise
- ☐ Raz-Kids Reading
- ☐ Reading Eggs
- ☐ Brightspace by D2L
- ☐ Senteo
- ☐ Smart Response
- ☐ Cat4
- ☐ Socrative
- ☐ Khan Academy
- ☐ Other (please specify): _____
- ☐ I don't know

C2a. Please list any additional diagnostic, adaptive, and real-time assessment tools you are aware of:

1. _____
2. _____
3. _____
4. _____
5. _____

C3. How much input did you have or would you expect to have with respect to choosing and implementing the tools?

None (1)	**(2)**	**(3)**	**(4)**	A great deal (5)	N/A
☐	☐	☐	☐	☐	☐

C2. If your school district were to implement diagnostics, adaptive, and real-time assessment tools, how much input would you expect to have with respect to choosing and implementing the tools?

None (1)	**(2)**	**(3)**	**(4)**	A great deal (5)	N/A
☐	☐	☐	☐	☐	☐

C3. How much input did you have with respect to choosing and implementing the tool(s)?

None (1)	**(2)**	**(3)**	**(4)**	A great deal (5)	N/A
☐	☐	☐	☐	☐	☐

C4. Which of the following best describes how the use of the diagnostics, adaptive, and real-time assessment tool(s) was determined for your class(es)?

- ☐ Mandated
- ☐ Provide with limited options
- ☐ Totally optional
- ☐ Not available for my class(es)
- ☐ Other (please specify): _____

C5. How has the use of this tool(s) changed your workload as a classroom teacher?

Significantly increased workload (1)	**(2)**	Not changed workload **(3)**	**(4)**	Significantly decreased workload (5)	N/A
☐	☐	☐	☐	☐	☐

C6. How would you rate:

	Very poor (1)	(2)	(3)	(4)	Very good (5)	N/A
The professional development or school jurisdiction inservicing available to you to help you learn to initially use the diagnostics, adaptive, and real-time assessment program?	☐	☐	☐	☐	☐	☐
The technical support currently available to you as you use the diagnostics, adaptive, and real-time assessment program?	☐	☐	☐	☐	☐	☐

C7. To what extent are the subject area content/skills within these assessment tools compatible with Alberta programs of study?

Limited compatibility (1)	(2)	(3)	(4)	Very compatible (5)
☐	☐	☐	☐	☐

C8. Can you recall a specific example of when the use of a digital assessment tool appeared to have a positive impact on a student or students? Please describe.

C9. Can you recall a specific example of when the use of a digital assessment tool appeared to have a negative impact on a student or students? Please describe.

D. ASSESSING DIGITAL PORTFOLIOS

The term digital portfolios refers to software or platforms (such as Google Apps for Education, FreshGrade, Class Dojo®, and SeeSaw) that track, document, assess and report student activities within the learning environment.

D1. Do you currently use (or are you planning to use) digital portfolios?

- ☐ Yes, I am currently using or implementing a digital portfolio platform.
- ☐ Yes, I am planning to implement a digital portfolio platform in the future.
- ☐ No.
- ☐ Not sure.

D2. Which of the following digital portfolio tools do you use?

- ☐ Google Apps for Education
- ☐ FreshGrade
- ☐ Class Dojo®
- ☐ SeeSaw
- ☐ Other (please specify): _____
- ☐ I don't know

D2. Which of the following digital portfolio tools are you planning to use?

- ☐ Google Apps for Education
- ☐ FreshGrade
- ☐ Class Dojo®
- ☐ SeeSaw
- ☐ Other (please specify): _____
- ☐ I don't know

D2c. Please list any additional digital portfolio tools you are aware of:

1. _____

2. _____

3. _____

4. _____

5. _____

D3. How much input did you have or would you expect to have with respect to choosing and implementing a digital portfolio tool?

None (1)	**(2)**	**(3)**	**(4)**	A great deal (5)	N/A
☐	☐	☐	☐	☐	☐

D2. If your school district were to implement a digital portfolio tool, how much input would you expect to have with respect to choosing and implementing it?

None (1)	**(2)**	**(3)**	**(4)**	A great deal (5)	N/A
☐	☐	☐	☐	☐	☐

D3. How much input did you have with respect to choosing and implementing the digital portfolio platform?

None (1)	**(2)**	**(3)**	**(4)**	A great deal (5)	N/A
☐	☐	☐	☐	☐	☐

D4. Which of the following best describes how the use of the digital portfolio platform was determined for your class(es)?

- ☐ Mandated
- ☐ Provide with limited options
- ☐ Totally optional
- ☐ Not available for my class(es)
- ☐ Other (please specify): _____

D5. How has the use of this digital portfolio platform changed your workload as a classroom teacher?

Significantly increased workload (1)	**(2)**	Not changed workload **(3)**	**(4)**	Significantly decreased workload (5)	N/A
☐	☐	☐	☐	☐	☐

D6. To what extent are you using digital portfolio platforms for the following?

	Not at all (1)	**(2)**	**(3)**	**(4)**	To a great extent (5)
To track, document, and share student work	☐	☐	☐	☐	☐
To track student conduct	☐	☐	☐	☐	☐
To shape classroom culture	☐	☐	☐	☐	☐
Other (please specify below):	☐	☐	☐	☐	☐

D7. How would you rate:

	Very poor (1)	**(2)**	**(3)**	**(4)**	Very good (5)	N/A
The professional development or school jurisdiction inservicing available to you to help you learn to initially use the digital portfolio tool?	☐	☐	☐	☐	☐	☐
The technical support currently available to you as you use the digital portfolio tool?	☐	☐	☐	☐	☐	☐

D8. To what extent are the subject area content/skills within these digital portfolio tools compatible with Alberta programs of study?

Limited compatibility (1)	**(2)**	**(3)**	**(4)**	Very compatible (5)
☐	☐	☐	☐	☐

D9. Can you recall a specific example of when the use of a digital portfolio tool appeared to have a positive impact on a student or students? Please describe.

D10. Can you recall a specific example of when the use of a digital portfolio tool appeared to have a negative impact on a student or students? Please describe.

E. DATA ISSUES

E1. Please indicate your level of concern around the following issues related to digital reporting, assessment and/or portfolio tools:

	Not at all concerned (1)	(2)	(3)	(4)	Very concerned (5)	N/A
Where the student data is being stored.	☐	☐	☐	☐	☐	☐
Who has access to the student data.	☐	☐	☐	☐	☐	☐
Who controls the student data.	☐	☐	☐	☐	☐	☐
Automated scoring or analysis of student data.	☐	☐	☐	☐	☐	☐
Maintaining appropriate privacy.	☐	☐	☐	☐	☐	☐
Cost of the tools.	☐	☐	☐	☐	☐	☐
Flexibility of the tools.	☐	☐	☐	☐	☐	☐
Level of consultation with teachers around the purchase and use of tools.	☐	☐	☐	☐	☐	☐
Teachers' workload.	☐	☐	☐	☐	☐	☐
Quantification of student data.	☐	☐	☐	☐	☐	☐
How long data is retained.	☐	☐	☐	☐	☐	☐
Other (please specify below):	☐	☐	☐	☐	☐	☐

E2. Who do you think has access to (and can use) the stored data (select all that apply)?

- ☐ The student's teacher(s)
- ☐ School administration
- ☐ District administration
- ☐ Publisher
- ☐ Software companies
- ☐ Parents
- ☐ Students
- ☐ Alberta Education
- ☐ Other (please specify): _____

F. PROVINCIAL GOVERNMENT MOVING FROM PRINT TO DIGITAL

In light of the Alberta Education's decision to move away from print resources and assessments towards digital resources and assessments, please respond to the following:

F1. How will implementing digitally based resources affect student learning (e.g., closing of Learning Resource Centre)?

Negatively				Positively
(1)	**(2)**	**(3)**	**(4)**	(5)
☐	☐	☐	☐	☐

Please explain:

F2. How will the Alberta Government's decision to implement digital assessment affect student learning (e.g., computer-based testing in Grades 3, 6, 9 and diplomas)?

Negatively				Positively
(1)	**(2)**	**(3)**	**(4)**	(5)
☐	☐	☐	☐	☐

Please explain:

F3. How have your students' digital skills impacted their performance on digital assessments?

Negatively				Positively	
(1)	**(2)**	**(3)**	**(4)**	(5)	Don't know
☐	☐	☐	☐	☐	☐

F4. Do you have any additional comments about your experiences using digital reporting, assessment, and/or portfolio tools or any other aspect of this survey (e.g., privacy issues, storage of student data, move from print to digital)?

G. CURRENT TEACHING AND LEARNING CONDITIONS

G1. Currently, how satisfied are you with the following elements of your working conditions?

	Very dissatisfied (1)	**(2)**	**(3)**	**(4)**	Very satisfied (5)	Not sure
The size of your classes.	☐	☐	☐	☐	☐	☐
The composition of your classes.	☐	☐	☐	☐	☐	☐
Support for students with special needs.	☐	☐	☐	☐	☐	☐
Access to computers and other information technology.	☐	☐	☐	☐	☐	☐
Access to print resources and textbooks.	☐	☐	☐	☐	☐	☐
Access to digital resources and textbooks.	☐	☐	☐	☐	☐	☐
Access to professional development.	☐	☐	☐	☐	☐	☐
Requirements to supervise and undertake other assigned tasks.	☐	☐	☐	☐	☐	☐
Background readiness skills students bring to learning.	☐	☐	☐	☐	☐	☐
Access to computers and information technology support.	☐	☐	☐	☐	☐	☐
Inservicing by school jurisdictions.	☐	☐	☐	☐	☐	☐

H. DEMOGRAPHIC DATA

The following information will be used only to compare and analyze the aggregate data collected in this and other related surveys of Alberta teachers.

Your teachers' convention:

- ☐ Calgary City
- ☐ Central Alberta
- ☐ Central East
- ☐ Greater Edmonton
- ☐ Mighty Peace
- ☐ Northeast
- ☐ North Central
- ☐ Palliser
- ☐ South West
- ☐ Southeast

Do you teach in Edmonton or Fort McMurray?

- ☐ Edmonton
- ☐ Fort McMurray

Your years of teaching experience, including the current year:

- ☐ 1 year
- ☐ 2 to 4 years
- ☐ 5 to 9 years
- ☐ 10 to 14 years
- ☐ 15 to 19 years
- ☐ 20 to 29 years
- ☐ 30 years or over

Your employment status:

- ☐ Full-time
- ☐ Part-time

Your current designation:

- ☐ Classroom teacher
- ☐ Substitute teacher
- ☐ School administrator only
- ☐ Central office
- ☐ Combined classroom and administrative duties
- ☐ Other (please specify): _____

Your age:

- ☐ 25 and younger
- ☐ 26–30 years old
- ☐ 31–35 years old
- ☐ 36–40 years old
- ☐ 41–45 years old
- ☐ 46–50 years old
- ☐ 51–55 years old
- ☐ 56–60 years old
- ☐ 61–65 years old
- ☐ Over 65

Your gender:

- ☐ Female
- ☐ Male
- ☐ Other: _____

In what type of school do you teach?

- ☐ Rural
- ☐ Small urban
- ☐ Large urban
- ☐ Not Applicable

Please indicate your current assignment:

- ☐ ECS/Kindergarten
- ☐ Grades 1 to 3
- ☐ Grades 4 to 6
- ☐ Grades 7 to 9
- ☐ Grades 10 to 12
- ☐ Combinations (please specify):

Would you be willing to participate in a focus group at a teachers' convention on the topic of digital reporting and digital assessment?

- ☐ Yes, please provide your email address:
- ☐ No

Notes

1. The top five most popular designations listed by respondents when asked to specify other current designations included "a specific combination" of designations, learning coach or learning support, counsellor, inclusive or outreach education, and specialist. Table A1 in Appendix A shows a complete listing of the coded categories.
2. It should be noted that the survey provided these categories and no definitions for *rural, small urban* and *large urban* were provided. Therefore, two respondents from the same location could have categorized their location differently.
3. When asked to specify which grade combinations they were teaching, most respondents indicated that their assignments included teaching Grades 7–12, Grades 3–4, Grades 9–12, ECS/kindergarten–Grade 9, ECS/kindergarten–Grade 6 and Grades 1–6. A full list of all the combinations provided is included in Table A2 in Appendix A.
4. Table A3 in Appendix A includes all the coded categories and their corresponding number of responses.
5. Table A4 in Appendix A lists all the digital reporting tools specified by respondents.
6. Table A5 in Appendix A shows the digital reporting tools respondents specified in the "other" category as tools that they were planning to use.
7. For full details regarding the "other" category, see Table A6 in Appendix A.
8. Table A7 in Appendix A lists all the coded report categories.
9. Table A8 in Appendix A shows all the tools participants listed.
10. Table A9 in Appendix A shows the digital assessment tools respondents specified in the "other" category as tools that they were planning to use.
11. Those who answered "other" when asked about how the use of digital assessment tools was determined stated that they used a combination of optional tools and mandated tools, as well as tools with a specific use. Table A10 in Appendix A includes exemplary comments for both categories.
12. Table A11 in Appendix A shows all the digital portfolio tools primarily used that were listed in the "other" category.
13. Table A12 in Appendix A shows all the digital portfolio tools respondents were planning to use that were listed in the "other" category.
14. The other ways the use of the portfolio tools was determined are outlined in Table A13 in Appendix A.

15. Table A14 in Appendix A includes full details.
16. Table A15 in Appendix A includes all coded categories and a few exemplary comments for each category.
17. Table A16 in Appendix A provides more detail.
18. Table A17 in Appendix A includes full details.
19. Table A18 in Appendix A includes all coded comments and the corresponding number of mentions.

The Alberta
Teachers' Association

ISBN 978-1-927074-63-3
COOR-101-15 2020 11