Optimum Learning for All Students

Implementing Alberta's 2018 Professional Practice Standards

Confidential 2020-2021 Year 2 Survey Report

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Disclaimer:

The interpretations and conclusions contained herein are those of the researchers and do not necessarily represent the views of the Government of Alberta. The Government of Alberta does not express any opinion in relation to this study

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Implementing Alberta's 2018 Professional Practice Standards

Background

Alberta Education commissioned this 4-year longitudinal mixed methods research study, which is designed to assess, deepen, and extend the implementation process for Alberta's three professional practice standards: The *Teaching Quality Standard (*TQS) the *Leadership Quality Standard* (LQS*)*, and the *Superintendent Leadership Quality Standard* (SLQS). A four-university research team is generating insights from both quantitative and qualitative methods and is reporting results to Alberta Education, participants, and stakeholders on a yearly basis (2019, 2020, 2021, and 2022).

The three standard documents conceptualize professional practice in consistent ways.

> Quality **teaching** occurs when the teacher's ongoing analysis of the context, and the teacher's decisions about what pedagogical knowledge and abilities to apply result in optimum learning for all students. (Alberta Education, 2018c)
>
> Quality **leadership** occurs when the leader's ongoing analysis of the context, and the leader's decisions about what leadership knowledge and abilities to apply, result in quality teaching and optimum learning for all students in the school. (Alberta Education, 2018a)
>
> Quality **superintendent leadership** occurs when the superintendent's ongoing analysis of the context, and the superintendent's decisions about what leadership knowledge and abilities to apply, result in quality school leadership, quality teaching and optimum learning for all students in the school authority. (Alberta Education, 2018b)

In each standard statement professional practice is based on the professional's reading of the context and the application of the professional's judgement about the professional knowledge and skills that will most likely lead to optimum learning for *all* students. All three standard documents are structured in the same manner: one s*tandard*, six to nine required *competencies*, and several optional *indicators.*

In preparation for required implementation in September 2019, and in partnership with education stakeholders, Alberta Education made considerable investments in implementation readiness initiatives, structures, and frameworks to *support and assure the implementation advancement of quality leadership and quality teaching that results in optimum learning for all students.*

A 4-year Longitudinal Mixed Methods Research Study

Quantitative and qualitative methods complement each other in longitudinal research (Leisering & Walker, 1998). Longitudinal qualitative research seeks to understand change with respect to a prior state of a phenomenon as opposed to diachronically or synchronically identifying causality (Neale & Flowerdew, 2003) using time as a linear construct. Survey data allow us to "compare two or more snapshots over time" (Venn et al., 2014, p. 194) and the case studies afford insights into the processes and factors that affect changes in phenomena such as principals' or teachers' beliefs, perceptions or attitudes over time. Of note for year two of this study: two data points in time do not constitute a "trend"; we cannot yet infer directionality in findings by simply comparing this year's findings with last year.

School Authority Case Studies

Qualitative case study data are being collected on a yearly basis through individual and/or focus group interviews of teachers, leaders (both school and school authority leaders as defined in the Leadership Quality Standard document (Alberta Education, 2018a, p.2), and superintendents in 10 school authority cases. These school authorities are serving as instrumental cases to illustrate and illuminate ways through which educators are enacting, embedding, and extending the three professional practice standards (Brinkman & Kvale, 2015; Creswell, 2012; Merriam & Tisdell, 2016; Stake, 2006).

Online Surveys

Online surveys of teachers, leaders, and superintendents scheduled in the fall of each year provide province wide insights from a large population of educators.

Additional Sources of Evidence

Evidence is being gathered in two additional ways: (a) through analysis of school authority policies and (b) through interviews of education partner organization leaders.

Method

Survey Overview

Three variations of an online survey (one for teachers, one for leaders, and one for superintendents) were designed and developed to collect meaningful quantitative data to augment the qualitative focus-group and interview data from the case studies. The surveys were developed by the research team, reviewed by members of the study's advisory committee, and piloted in the Lethbridge School Division in the spring of 2019.

Sample

Teacher, leader, and superintendent participants were invited to complete an online survey, which was sent by the research team to a random stratified sample of 36 Alberta school jurisdictions, several public charter schools, and a number of Independent schools within the Association of Independent Schools and Colleges of Alberta (AISCA). Online survey links were distributed in October

and November 2020. Across Alberta, survey data were collected from 1160 teachers, 444 leaders, and 36 superintendents.

Survey Scales

Implementation Advancement Scale

The first portion of each survey asked participants to indicate advances in implementation on the 5-point Likert scale outlined in Table 1 below. Questions were designed to address specific TQS, LQS, and SLQS competencies in the standard documents (Alberta Education, 2018a 2018b, & 2018c).

Table 1

Scale Used to Describe Implementation Advancement

1. **Not yet** indicates a level of **Awareness** (Strehlenert & Richter-Sundberg, 2015). No action has yet been taken in practice. Individuals indicate they are attempting to define what needs to change. They are establishing a strategy to get underway. They are considering strengths and barriers.
2. **Initiatin**g indicates **Early Adoption** (Strehlenert & Richter-Sundberg, 2015). Individuals indicate they and their school authorities are starting to address the competencies in their practice.
3. **Enacting** indicates **Adapting**. Individuals are using evidence from their practice to further refine their practices related to the competencies. They are adapting to new ways of working. Practices are evolving that allow individuals/school authorities to flexibly navigate the ill-structured, novel problem-solving nature of practice in response to the integrated nature of the competencies articulated in the standard (Kirton, 2003).
4. **Embedding** indicates **Sustaining**. Individuals/school authorities are improving/strengthening competency levels. Individuals/districts are using evidence to confirm that the competencies in this standard are now part of common everyday practice (McLaughlin & Mitra, 2001).
5. **Extending** indicates **Scaling**. Individuals/school authorities are establishing professional individual/district priorities and goals based on evidence from practice; thereby, incorporating the standard into other aspects of their practice (eg. variety of planning processes, strategic plans, professional learning plans, growth plans, district and school improvement plans, unit plans, lesson plans, staff meetings) (McLaughlin & Mitra, 2001).

Professional Learning Need Scale

Questions in the second part of each survey were designed to determine the professional learning need of participants related to specific TQS, LQS, and SLQS competencies based on the 4-point Likert scale summarized in Table 2.

Table 2

Scale Used to Describe Professional Learning Need

1. **No need** of professional learning in relation to the specific competency.
2. **Low level** of professional learning need in relation to the specific competency.
3. **Moderate level** of professional learning need in relation to the specific competency.
4. High level of professional learning need in relation to the specific competency.

Forms of Professional Learning Accessed Scale

Questions in the third and fourth parts of the teacher survey and the third part of the leader survey were drawn, with permission, from the 2018 Organization for Economic Cooperation and Development's (OECD) Teaching and Learning International Survey (TALIS). Participants were asked to identify the types of professional learning and development activities they had accessed from a list of activities provided in each survey.

Scale Reliability

Cronbach's alpha (Table 3) was calculated to determine the internal consistency or reliability of each of the survey instruments, Teacher Survey, Leader Survey, and Superintendent Leader Survey. The closer the alpha is to 1.0 the greater the reliability of the survey. An alpha of 0.70 to 0.90 is considered to have strong reliability.

Cronbach's alpha can also be calculated for each construct or competency; however, as there are a low number of items for each construct or competency, the alpha associated with each tend to be lower. This is one of the limitations of Cronbach's alpha.

Table 3

Cronbach Alpha Coefficiencies of Three Surveys

Survey	Implementation Advancement Cronbach Alpha (excluding yes/no OECD items)	Number of Items (excluding yes/no OECD items)	Professional Learning Cronbach Alpha (including yes/no OECD items)	Number of Items (including yes/no OECD items)
Teachers	0.92	52	0.90	72
Leaders	0.95	89	0.95	97
Superintendents	0.97	70	0.97	79

Analysis

Descriptive and inferential analysis using SPSS v.26 were conducted. The descriptive analysis consisted of measures of central tendency (mean and median), spread (quartile ranges, standard deviation, and variance), and frequency. The results from the analysis are displayed in tables and figures (bar graphs and box and whisker plots). The box and whisker plots show both the distribution and variation within the data set. A box and whisker plot indicates five measures: the minimum score, lower quartile, median, upper quartile, maximum score, with the whiskers representing the lower 25% of the scores and 25% of the upper scores. In addition, the box and whisker plots displayed include outliers in the data set. These are indicated using small circles. Each circle represents one person. The outliers are participants' responses that are numerically distant from the rest of the data.

Inferential analysis, used to test for difference in the means between multiple groups in the demographic information, consists of calculations of statistical significance showing relationships between multiple variables. A multivariate analysis of variance (MANOVA) is a technique for several dependent variables. A Pillai's Trace determined the significance levels on the F-distributions. The analysis of the data was carried out by comparing the means from the items from two sections of the survey (Implementation Advancement and Professional Learning Needs) with the demographic data. Post hoc tests were conducted as they are an integral part of MANOVA analysis used to explore particular differences between groups while controlling for error. Post hoc figures provide the results of competencies that were statistically significant.

This report summarizes the provincial results from a survey of 1160 Alberta teachers, 444 leaders, and 36 superintendents in October 2020 in a representative sample of 22 school divisions along with 29[1] independent school authorities.

Organization of the Results

This report presents the results from the second year of implementation of the *Teaching Quality Standard* (Alberta Education, 2018c), *Leadership Quality Standard* (Alberta Education, Confidential 2020-21 Year 2 Survey Report for Alberta Education 2018a), and the *Superintendent Leadership Standard* (Alberta Education, 2018b). The aggregated results are organized into three major sections: results from the teacher survey, results from the leadership survey, and results from the superintendent survey. Each section is further organized into sub-sections:

- Implementation advancement related to each competency in the Standard (Teaching, Leadership, and Superintendent Leadership) – 5-point Likert scale
- Professional learning level of need related to each competency in the Standard (Teaching, Leadership, and Superintendent Leadership) – 4-point Likert scale
- Participation in various types of professional learning opportunities accessed – binary choice (yes/no)
- Teacher survey MANOVA results using the demographic data.

[1] 29 of the participating school authorities are members of the Association of Independent Schools and Colleges of Alberta (AISCA). Many participating independent school authorities received a personalized survey report in year 2. For the purposes of this report, all of the participating school authorities are represented in the analysis and findings.

Teacher Survey Results and Discussion

In this section we present and discuss the provincial results from the second year of implementation of the revised *Teaching Quality Standard* (Alberta Education, 2018c) in four sub-sections:

1. Implementation advancement related to each TQS competency;
2. Professional learning level of need related to four TQS competency and selected indicators;
3. Participation in various types of professional learning activities; and
4. Impact of professional learning on teaching practice

Implementation Advancement Related to Each TQS Competency

To describe implementation,, we adopt the rule that aggregated competency mean scores must reach the nearest whole number to signify level placement. Results displayed in Table 4 and Figure 1 below indicate teachers report they are in the enacting or adapting phase for:

- Competency 1: Fostering Effective Relationships,
- Competency 2: Engaging in Career-Long Learning,
- Competency 3: Demonstrating a Professional Body of Knowledge, and
- Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit

This would indicate teachers are in the process of adapting their competencies by using evidence to further refine their practice.

Results further indicate that teachers report they are in the embedding or sustaining phase for:

- Competency 4: Establishing Inclusive Environments, and
- Competency 6: Adhering to Legal Frameworks and Policies.

These standards are now part of common everyday practice.

Table 4

Descriptive and Reliability Statistics for Implementation Advancement Related to Six TQS Competencies

Construct	Mean	Standard Deviation
Competency 1: Fostering Effective Relationships (α=0.74)	**3.55**	**0.66**
1. I build trusting relationships with parents/guardians.	3.82	0.80
2. I build collaborative relationships with community service professionals.	3.08	1.16
3. I develop relationships built on fairness, respect, and integrity.	4.36	0.63
4. I develop relationships with parents/guardians by providing culturally meaningful opportunities to support student learning.	3.32	1.00
5. I build relationships that promote First Nations, Métis and Inuit understanding.	3.17	1.00
Competency 2: Engaging in Career-Long Learning (α=0.74)	**3.91**	**0.58**
1. I engage with other teachers to build personal capacity.	4.10	0.79
2. I use evidence of student learning to engage in critical reflection on my practice.	4.16	0.72

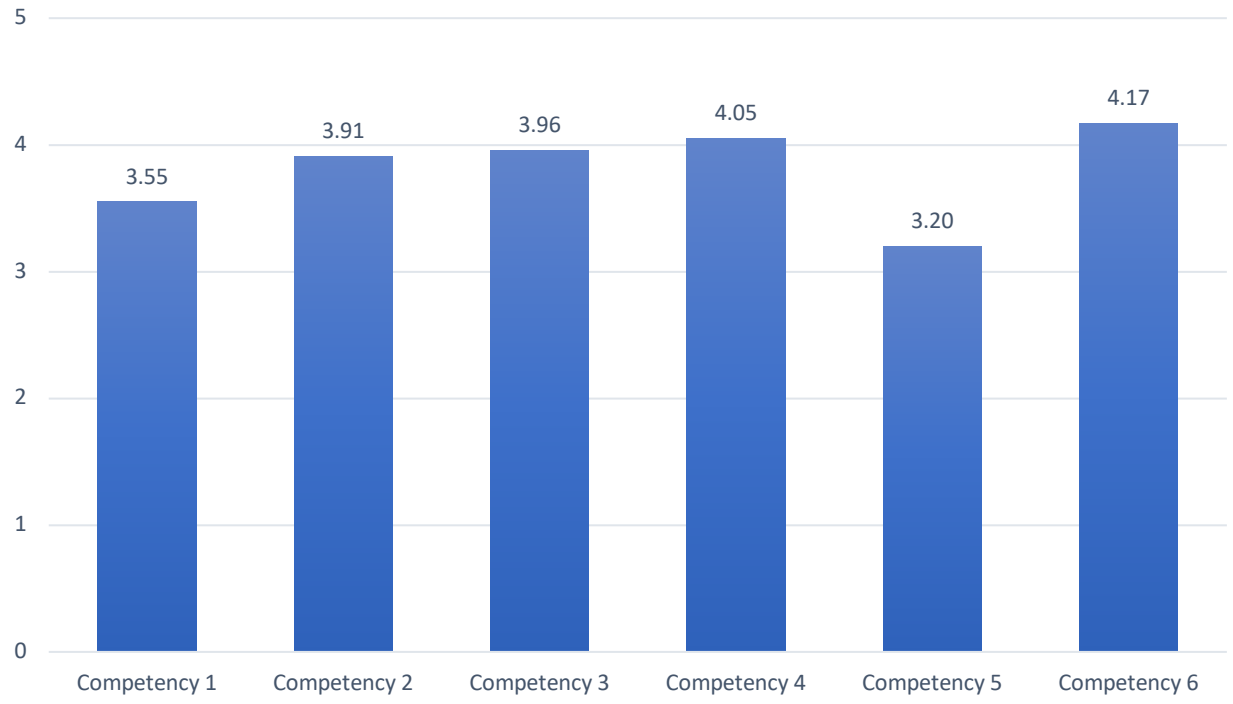
Construct	Mean	Standard Deviation
3. I actively seek out feedback to enhance my teaching practice.	3.83	0.83
4. I apply educational research to improve my teaching practice.	3.69	0.91
5. I maintain an awareness of emerging technologies that support teaching and learning.	3.76	0.86
Competency 3: Demonstrating a Professional Body of Knowledge (α=0.84)	**3.96**	**0.61**
1. I provide a learning environment that responds to the learning needs of every student.	3.97	0.73
2. I apply a current repertoire of effective instruction to meet the learning needs of every student.	4.01	0.74
3. I use comprehensive repertoire of effective instruction to meet the learning needs of every student.	3.90	0.77
4. I use a range of assessments as evidence to report on student progress and achievement.	3.95	0.75
Competency 4: Establishing Inclusive Environments (α=0.79)	**4.05**	**0.55**
1. I design learning that fosters equality and respect with regard to rights provided for in the *Alberta Human Rights Act* and the *Canadian Charter of Rights and Freedoms*.	4.08	0.79
2. I draw upon a wide range of instructional strategies to engage students in meaningful learning activities.	4.10	0.71
3. I communicate high expectations for all students.	4.21	0.66
4. I use a variety of classroom management strategies that promote positive, engaging learning environments.	4.17	0.69
5. I incorporate students' personal and cultural strengths into teaching and learning.	3.71	0.84
Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit (α=0.95)	**3.20**	**0.95**
1. I plan learning opportunities for all students that accurately demonstrate the strength and diversity of First Nations, Metis, and Inuit peoples of Canada.	3.15	1.02
2. I use programs of study to provide opportunities for all students to develop knowledge of the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Metis, and Inuit.	3.25	1.04
3. I use programs of study to provide opportunities for all students to develop an understanding of the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Metis, and Inuit.	3.19	1.03
4. I support the learning experiences of all students by using resources that accurately reflect and demonstrate the strength and diversity of First Nations, Métis and Inuit	3.22	1.01

Construct	Mean	Standard Deviation
Competency 6: Adhering to Legal Frameworks and Policies (α=0.69)	**4.17**	**0.53**
1. I maintain an awareness of, and respond in accordance with, requirements authorized under the *Education Act* and other relevant legislation.	3.92	0.78
2. I engage in practices consistent with policies and procedures established by the school authority.	4.17	0.63
3. I recognize that my professional practice is bound by a standards code of conduct.	4.42	0.58

Note. *Cronbach alpha values indicate internal consistency for each competency and was calculated using all Alberta teachers' survey responses (*n*=1160). Cronbach's alpha is a measure of internal scale reliability. The closer the value to one, the stronger the reliability.
Note. Standard Deviation describes spread in the data. The lower the value, the less the variability in the answers to the question.

Figure 1

Comparison of Means on the Implementation Advancement Related to Six TQS Competencies



Note. 4-point Likert scale: 1=not yet, 2=initiating, 3=enacting, 4=embedding, and 5=extending

Table 5

Overview of Six Competencies Related to Implementation Advancement for TQS Competencies

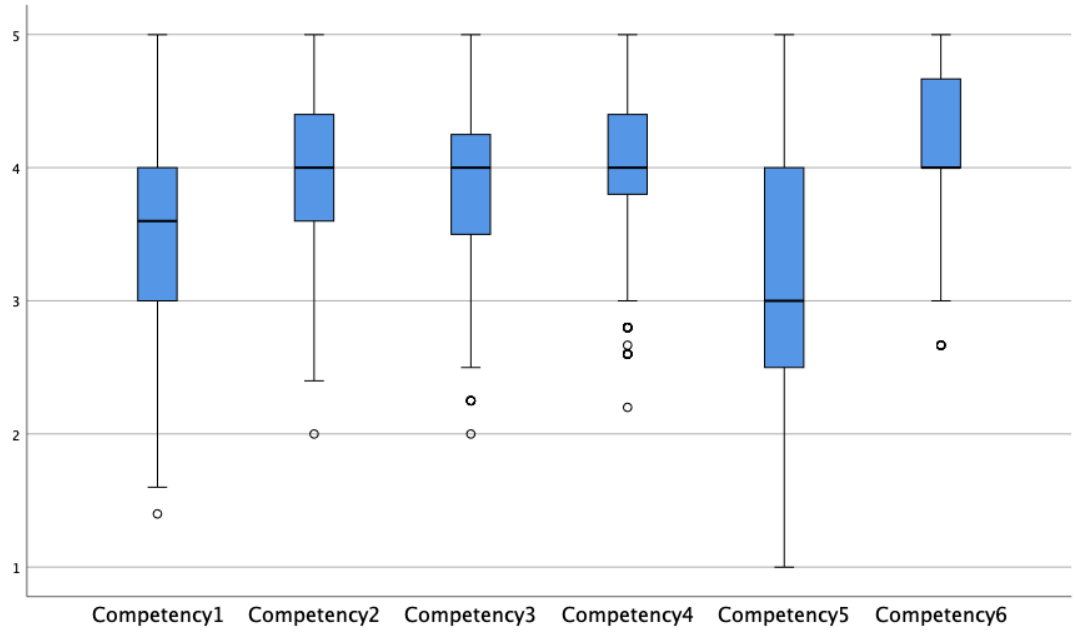
Scale Descriptor	Mean	Competency
Enacting – Individuals are using evidence from their practice to further refine their practices related to the competencies. They are adapting to new ways of working. Practices are evolving that allow individuals/systems to flexibly navigate the ill-structured, novel problem-solving nature of practice in response to the integrated nature of the competencies articulated in the standard.	3.55	Competency 1: Fostering Effective Relationships
	3.91	Competency 2: Engaging in Career—Long Learning
	3.96	Competency 3: Demonstrating a Professional Body of Knowledge
	3.20	Competency 5: Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit
Embedding - Individuals are improving/strengthening competency levels. Individuals/systems are using evidence to confirm that the competencies in this standard are now part of common everyday practice	4.20	Competency 4: Establishing Inclusive Environments
	4.17	Competency 6: Adhering to Legal Frameworks and Policies

Box and Whisker Plot

The following box and whisker plot (Figure 2) shows both the distribution and variation within the data set. Visual analysis of the boxplot indicates that the distribution of teacher responses on the interquartile range (the blue box of the boxplot that represents the range between the 25th percentile and the 75th percentile) and median (the line in each box that represents the 50th percentile of the responses) illustrate differences across the six competencies, indicating that teacher responses to the competencies shifted markedly depending on which element in the standards we focused on.

Figure 2

Distribution and Variance in Implementation Advancement Related to TQS Competencies



Comparison of Year 1 and Year 2 Results

Table 6 provides a comparison of year one and year two results on implementation advancement of the TQS competencies for participating jurisdictions in Alberta. You will notice reported improvement in implementation advancement in Competency 5 in year two. You will also notice a slight decrease in competencies 1, 2, 4, and 6 in year two. Again, as noted on page 8, one cannot conclude that a trend is underway with only two years of results under comparison.

Table 6

Comparison Between Year One and Year Two Results of Implementation Advancement

Competency	Year One (*n*=2300)	Year Two (*n*=1160)
Competency 1: Fostering Effective Relationships	3.57	3.55
Competency 2: Engaging in Career-Long Learning	3.96	3.91
Competency 3: Demonstrating a Professional Body of Knowledge	3.96	3.96
Competency 4: Establishing Inclusive Environments	4.21	4.05
Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit	2.99	3.20
Competency 6: Adhering to Legal Frameworks and Policies	4.34	4.17

Professional Learning Level of Need Related to Six TQS Competencies

Professional learning is a significant part of successful implementation. The professional learning accompanying the *Teaching Quality Standard* acknowledges that learning occurs over time and requires support for implementation to embed the new learning into practices. Professionals' use of time, collaborative inquiry, and the ability to change multiple areas of practice are necessary for professionals to influence learning outcomes of their students. Teachers need time to develop, absorb, discuss, and practice new knowledge over a sustained and intensive period of time (Garet et al., 2001; Guskey, 2000; Timperley et al., 2007).

In general, 'needs' are different than 'wants'. Needs are requirements for something because it is essential or very important for sustaining the profession. Wants, on the other hand, describe what is desired, but is not essential for subsistence. Teacher perspectives on their professional learning needs are described in relation to the following six TQS competencies:

- Competency 1: Fostering Effective Relationships
- Competency 2: Engaging in Career-Long Learning
- Competency 3: Demonstrating a Professional Body of Knowledge
- Competency 4: Establishing Inclusive Environments
- Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit
- Competency 6: Adhering to Legal Frameworks and Policies

Results in this subsection are displayed in Table 7 and Figure 3 below. Table 7 provides a descriptive statistical summary of teacher need for professional learning based on a 4-point Likert scale. Figure 3 displays these same data as a bar graph.

Similar to year one, teachers report an overall low level of need for professional learning related to the implementation of the six TQS competencies. However, further professional learning in some sub-areas within each competency may be still be warranted. Overall means disguise variation within. For example, under Competency 4 for Inclusive Environments, Alberta teachers express little need for professional learning on the *Alberta Human Rights Act* and the *Charter of Rights and Freedoms* (1.97), but a more pronounced need for PL on supporting students' emotional and mental health (2.79). Hence, overall,

- Competency 1: Fostering Effective Relationships, has an overall mean of 2.33 which expresses a "low level of need"
- Competency 2: Engaging in Career-Long Learning, has an overall mean of 2.31 which corresponds to a "low level of need"
- Competency 3: Demonstrating a Professional Body of Knowledge, has an overall mean of 2.41 which corresponds to "low level of need"
- Competency 4: Establishing Inclusive Environments, has an overall mean of 2.39 which expresses a "low level of need"
- Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit, has an overall mean of 2.75 which corresponds to a "low level of need"
- Competency 6: Adhering to Legal Frameworks and Policies, has an overall mean of 2.08 which indicates a "low level of need"

Table 7

Descriptive and Reliability for Professional Learning Need Related to Six TQS Competencies

Construct	Mean	Standard Deviation
Competency 1: Fostering Effective Relationships (α=0.83)	**2.33**	**0.71**
1. I require PL about building trusting relationships with parents/guardians.	1.95	0.95
2. I require PL on building working relationships with community service professionals.	2.43	0.86
3. I require PL on developing relationships built on fairness, respect, and integrity.	1.88	1.03
4. I require PL about building relationships through creating culturally meaningful opportunities to support student learning.	2.53	0.88
5. I require PL on building relationships that promote First Nations, Métis and Inuit understanding.	2.86	0.85
Competency 2: Engaging in Career-Long Learning (α=0.86)	**2.31**	**0.70**
1. I require PL on building teachers' collective professional capacity.	2.27	0.93
2. I require PL on using evidence of student learning to critically reflect on my practice.	2.18	0.93
3. I require PL on seeking feedback about my teaching practice.	2.16	0.83
4. I require PL to keep abreast of educational research to improve my teaching practice.	2.40	0.81
5. I require PL on using emerging technologies to support teaching and learning.	2.54	0.85
Competency 3: Demonstrating a Professional Body of Knowledge (α=0.90)	**2.41**	**0.80**
1. I require PL on providing a learning environment that responds to the learning needs of every student.	2.44	0.94
2. I require PL on applying current educational research to meet the learning needs of every student.	2.43	0.87
3. I require PL on effective instruction to meet the learning needs of every student.	2.39	0.94
4. I require PL on student assessment practices.	2.36	0.91
Competency 4: Establishing Inclusive Environments (α=0.89)	**2.39**	**0.75**
1. I require PL on fostering equality and respect for the rights provided in *Alberta Human Rights Act* and the *Canadian Charter of Rights and Freedoms*.	1.97	0.89
2. I require PL on meeting the learning needs of a diverse group of students.	2.54	0.92
3. I require PL on using a range of instructional strategies.	2.28	0.94
4. I need PL on supporting the emotional and mental health needs of students.	2.79	0.95
5. I require PL about incorporating students' personal and cultural strengths into teaching and learning.	2.35	0.85

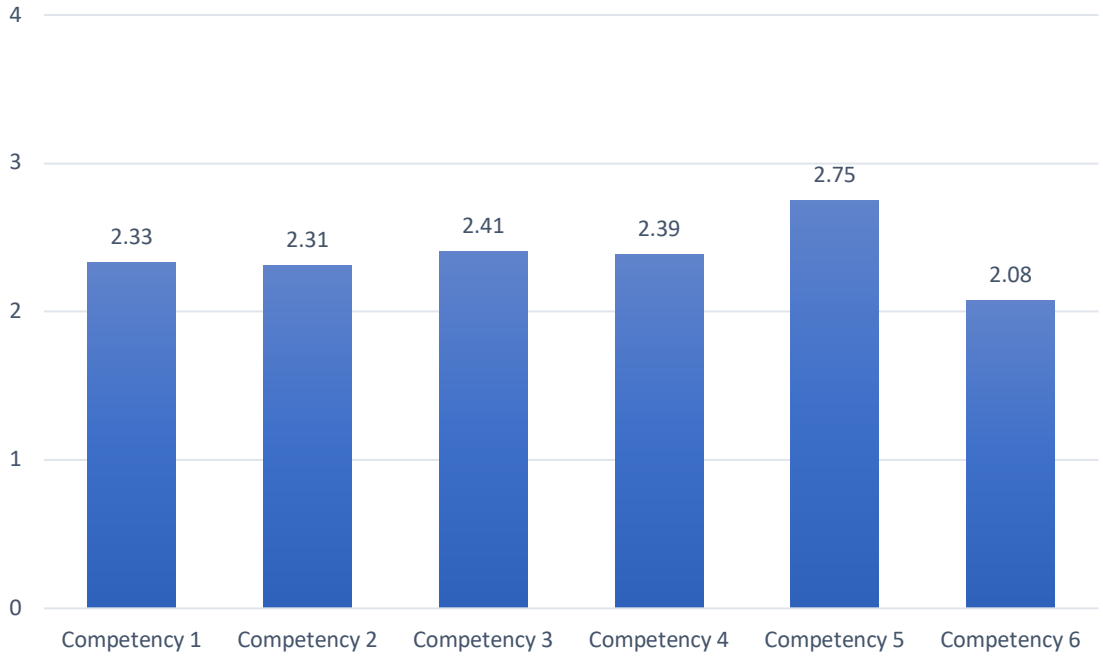
Construct	Mean	Standard Deviation
Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit (α=0.93)	**2.75**	**0.78**
1. I require PL on demonstrating the strength and diversity of First Nations, Metis, and Inuit peoples of Canada.	2.70	0.87
2. I require PL on developing knowledge of the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Metis, and Inuit.	2.87	0.86
3. I require PL on effectively using the programs of study for all students to develop an understanding of the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Metis, and Inuit.	2.65	0.87
4. I require PL on resources that reflect and demonstrate the strength and diversity of First Nations, Métis and Inuit.	2.80	0.85
Competency 6: Adhering to Legal Frameworks and Policies (α=0.88)	**2.08**	**0.81**
1. I require PL on how the *Education Act* and other relevant legislation impacts my teaching.	2.12	0.85
2. I require PL on policies and procedures established by the school authority.	2.03	0.92
3. I require PL on designing learning that addresses provincial learning outcomes.	2.08	0.94

Note. *Cronbach alpha values indicate internal consistency for each competency and were calculated using the survey responses from all participating Alberta teachers (*n*=1160)

The following bar graph (Figure 3) provides a visual overview of the overall means related to the six competencies in the *Teaching Quality Standard*.

Figure 3

Means of Professional Learning Need Related to Six TQS Competencies



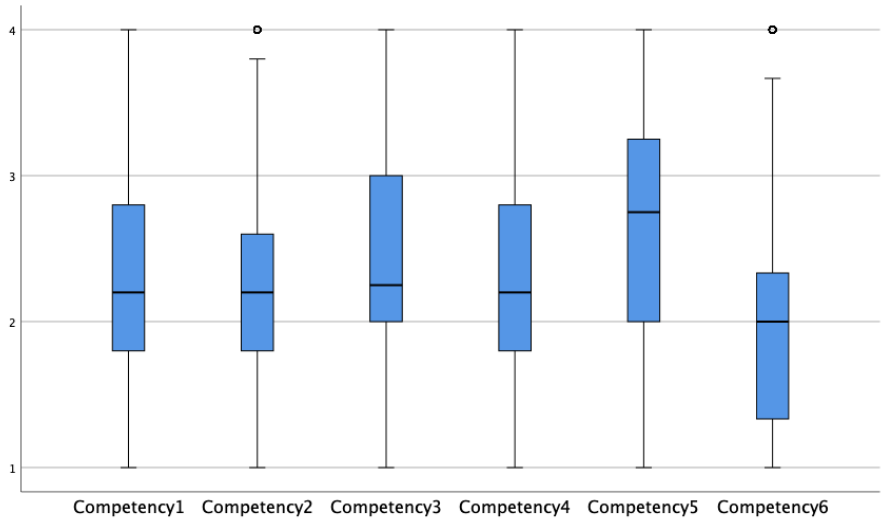
Note. 4-point Likert scale: 1= No need at present; 2= Low level of need; 3= Moderate level of need; 4= High level of need.

Box and Whisker Plot

The following box and whisker plot (Figure 4) shows both the distribution and variation within the data set for the six competencies. Consistent with a four-level scale, the box and whisker plots indicate the minimum score, lower quartile, median, upper quartile, maximum score, with the whisker representing the lower 25% of the scores and 25% of the upper scores for each of six competencies. There are two outliers, one in Competency 2 and one in Competency 6. While there is some skewing in the data, a positive skewing is most evident in Competency 3 and a negative skewing in Competency 5 and 6. That is, more teachers than the average responded favourably about questions asking about needs relating to Professional Knowledge, but more teachers than the average spoke in the negative about needs relating to FNMI perspectives and Legal Frameworks and Policies.

Figure 4

Distribution and Variation in Professional Learning Needs Related to Four TQS Competencies



Comparison of Year 1 and Year 2 Results

Table 8 provides a comparison of year one and year two results for professional learning needs of the TQS competencies of participating teachers in Alberta. Perhaps most noticeable is the apparent overall increase in the need for professional learning beyond what teachers are currently accessing. However, the differences between the year 1 and year 2 results on professional learning need in the various competency areas were not statistically significant. Moreover, we cannot draw conclusions about trends or the absence of trends, because we only have two longitudinal data points.

All competency areas were included in the survey this year. In subsequent years, participants will continue to respond to questions regarding their professional learning needs in each competency area.

Table 8

Comparison Between Year One and Year Two Results of Need for Professional Learning

Competency	Year One (*n*=2300)	Year Two (*n*=1160)
Competency 1: Fostering Effective Relationships	1.95	2.33
Competency 2: Engaging in Career-Long Learning	na	2.31
Competency 3: Demonstrating a Professional Body of Knowledge	2.11	2.41
Competency 4: Establishing Inclusive Environments	2.36	2.39
Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit	2.67	2.75
Competency 6: Adhering to Legal Frameworks and Policies	na	2.08

The relatively low levels of need for professional learning across both years may best be explained by considering these results with the results from part one of the survey, where teachers indicated they are already in the "enacting" phase for four of the competencies and "embedding" phase for two of the competencies. On one hand, teachers seem to be accessing a variety of professional learning opportunities and many of these are discernably impacting their practice. On the other hand, results may also be interpreted as the professional learning teachers are accessing is not helping to further or deepen their practice at higher levels as articulated by the TQS.

Participation in and Impact of Various Types of Professional Learning Opportunities

Research strongly links teaching quality and student learning outcomes (Darling-Hammond, 2000; Hattie, 2009; Jensen et al., 2016; Rowe, 2003; Wenglinsky, 2002). The types of professional learning over which teachers engage during their career is of paramount importance to student learning and the successful implementation of the competencies.

The results in this final portion of the teacher survey are displayed in Table 9, Figure 5, and Figure 6. They indicate that the majority of teachers attend courses or seminars online (88%), and read professional literature (84%). Thus, the majority of teachers have experienced high quality, high impact professional learning that was relevant to their practice.

Yet in the era of covid and school disruption, areas that stand out and bear further investigation involve the impact of professional learning on practice that engages most colleagues from the school (52%) and that take place over an extended period of time (52%). That is, the professional learning communities within the schools require some attention. Undoubtedly, these forms of professional learning must be modified or adapted to new technologies because of the continuing pandemic. Professional learning that consists without the opportunity to discuss new practices and processes with colleagues, does not appear to impact teachers' practice.

This reality is somewhat concerning. Research demonstrates that collective efficacy– or the sustained collective effort and action to change practice to improve learning outcomes for students over and above the educational impact of their homes and communities (Friesen & Brown, 2020)—is highly correlated (effect size d=1.57) with student achievement. Eells' (2011) meta-analysis demonstrated that "teacher collective efficacy is strongly and positively associated with student achievement across subject areas and in multiple locations" (p. 110). The literature further suggests use of time, collaborative inquiry, and the ability to change multiple areas of influence are necessary for the professional learning to enhance teachers' learning and the learning outcomes of their students. Teachers need time to develop, absorb, discuss, and practice new knowledge over a sustained and intensive period (Garet et al., 2001; Guskey, 2000; Timperley et al., 2007).

Table 9

Frequencies of Various Types of Professional Learning Accessed and the Impact on Teaching Practice

	Frequency Count (%)	
	Yes	**No**
In the last 12 months, did you participate in any of the following professional learning activities? (α=0.49)		
Courses/seminars attended in person.	480 (65%)	259 (35%)
Courses/seminars online.	653 (88%)	86 (12%)
Education conferences.	522 (71%)	215 (29%)
Formal qualification program (degree program).	108 (15%)	630 (85%)
Observation visits to other schools.	116 (16%)	622 (84%)
Peer and/or self-observation and coaching as part of a formal school arrangement.	279 (38%)	460 (62%)
Participation in a network of teachers at the school authority level formed specifically for the professional learning of teachers.	540 (73%)	198 (27%)
Professional learning community within the school formed specifically for the professional learning of teachers.	570 (77%)	168 (23%)
Reading professional literature.	620 (84%)	119 (16%)
Thinking of the professional learning activity that had the greatest positive impact on your teaching during the last 12 months, did it have any of the following characteristics? (α=0.70)		
It built on my prior knowledge.	708 (97%)	24 (3%)
It adapted to my professional learning needs.	648 (89%)	82 (11%)
It had a coherent structure.	645 (88%)	86 (12%)
It appropriately focused on content needed to teach my subjects.	565 (77%)	167 (23%)
It provided opportunities for active learning.	612 (84%)	119 (16%)
It provided opportunities for collaborative learning.	632 (86%)	100 (14%)
It provided opportunities to practice/apply new ideas and knowledge in my own classroom.	644 (88%)	87 (12%)
It took place in my school.	397 (54%)	335 (46%)
It involved most colleagues from my school.	383 (52%)	349 (48%)
It took place over an extended period of time (e.g. several weeks or longer)	378 (52%)	353 (48%)
It focused on innovation in my teaching.	523 (71%)	209 (29%)

Note. Cronbach alpha values indicate internal consistency for each competency and were calculated using the survey responses from all participating Alberta teachers (*n*=1160)

Figure 5

Frequency of Types of Professional Learning Accessed

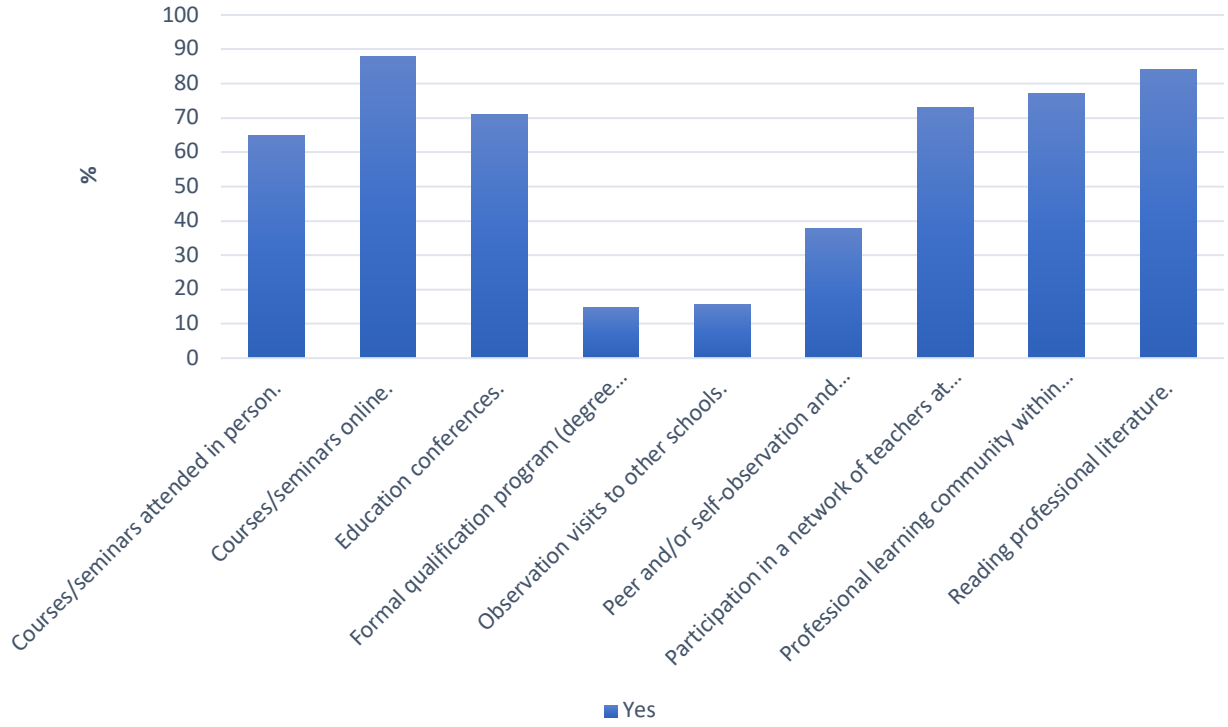
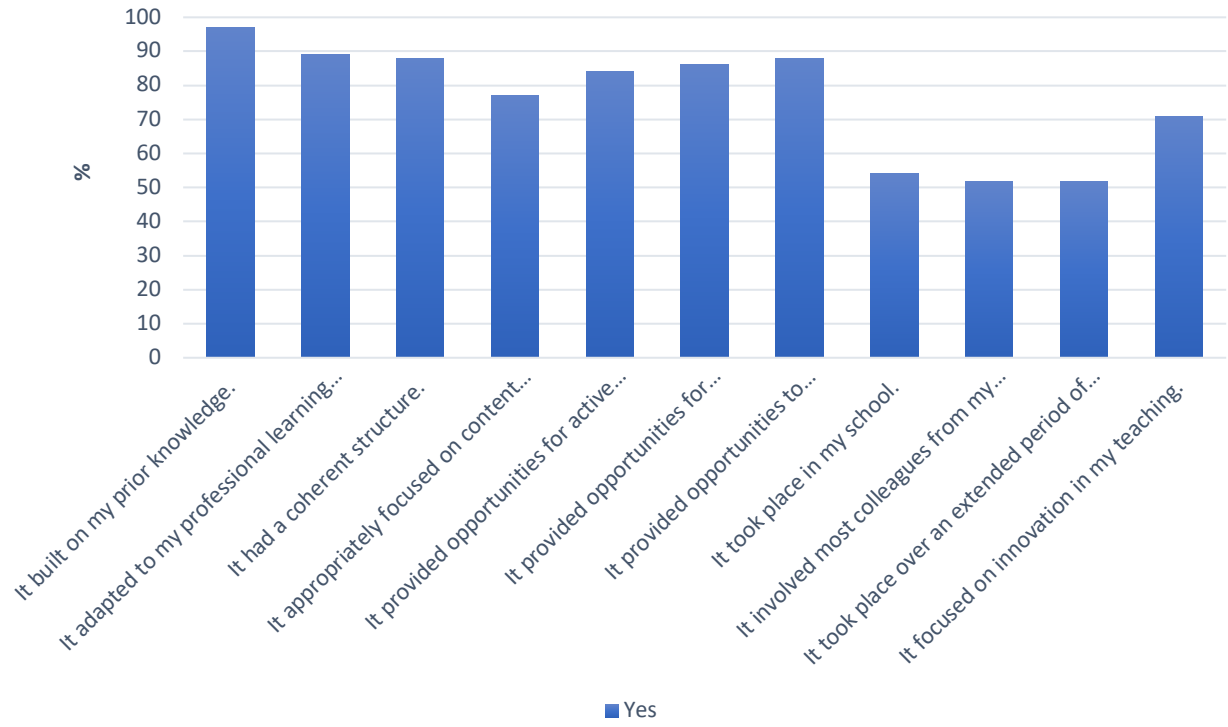


Figure 6

Impact of Professional Learning on Teaching Practice



Comparison of Year 1 and Year 2 Results

Table 10 provides a comparison of year one and year two results for form of professional learning accessed to support TQS implementation. It is evident, that teachers have shifted their professional learning to online opportunities from 48% in year one to 88% in year two. However, overall, the forms of professional learning teachers are accessing has not changed significantly over the two years.

Table 10

Comparison Between Year One and Year Two Results of Forms of Professional Learning Accessed

Form of Professional Learning Accessed	Year One (*n*=2300)	Year Two (*n*=1160)
Courses/seminars attended in person.	1562 (88%)	480 (65%)
Courses/seminars online	852 (48%)	653 (88%)
Education conferences.	1386 (79%)	522 (71%)
Formal qualification program (degree program).	240 (14%)	108 (15%)
Observation visits to other schools.	520 (30%)	116 (16%)
Peer and/or self-observation and coaching as part of a formal school arrangement.	827 (47%)	279 (38%)
Participation in a network of teachers at the school authority level formed specifically for the professional learning of teachers.	1301 (74%)	540 (73%)
Professional learning community within the school formed specifically for the professional learning of teachers.	1392 (79%)	570 (77%)
Reading professional literature.	1547 (88%)	620 (84%)

Demographic Group Differences[2]

The cross-tabulated results which follow reflect relationships between the various forms of professional learning accessed and the impact of the professional learning on particular subgroups of teachers. Part 1- Implementation Advancement Related to Each Competency and Part 2- Professional Learning Level of Need Related to Each Competency are involved in these cross tabulations.

Means of Teacher Survey Results Analysed by Grade Level Taught

Teachers were asked to indicate the grade level they are teaching. Given the variety of grade configurations across the provinces, teachers were provided with six different options. The following

[2] Only statistically significant group differences from the demographic variables are presented here. Figure 7 presents confidence intervals. The error bars in Figures, 8, 9, and 10 highlight the differences between implementation advancement and professional learning needs. Differences are apparent in Figures 8, 9, and 10 which show the error bars.

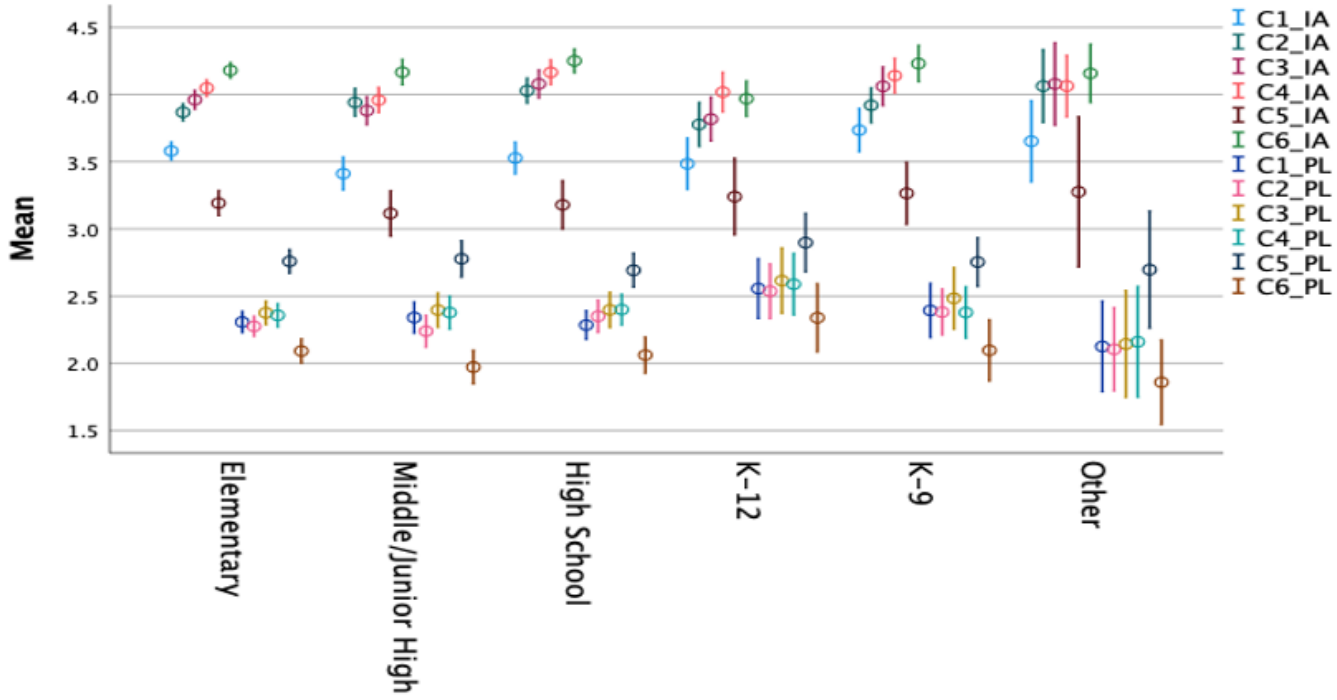
results (Figure 7) show the means from *Implementation Advancement* and *Professional Learning Needs* at a 95% confidence interval. The analysis was conducted using a multivariate analysis of variance (MANOVA). A Pillai Trace was conducted because it is robust to departures from the assumptions.

Results indicate teachers who teach at different grade levels responded in ways that were significantly different (F[60, 3565]=1.756, p<0.001, Pillai's Trace=0.144, η^2=0.029. Specifically, competencies 1, 2, 4, and 6 had statistically significant differences among grade level groups, but the effect sizes are very small.

Although statistically significant differences arise, there is little practical significance in the grade levels where teacher assignments fall. While differences between the various grade levels are statistically significant, the magnitude of the difference between the groups is small. Very small effect sizes and the largely consistent averages suggest that professional needs across the various competencies are relatively uniform. This means that for most professional learning, focused on competencies, it is appropriate to combine teachers from various grade levels. The analysis further indicates that for competency 1: fostering effective relationships, competency 4: establishing inclusive environments and competency 6: adhering to legal frameworks and policies, some individualization of professional learning might be considered between K-9 and middle/junior high school teachers, middle/junior high and high school teachers, high school and K-12 teachers respectively.

Figure 7

Results from Teacher Survey Analyzed by Grade Level Taught Displayed on an Interval Plot



Note: Implementation Advancement is abbreviated IA and Professional Learning is abbreviated to PL in the legend.

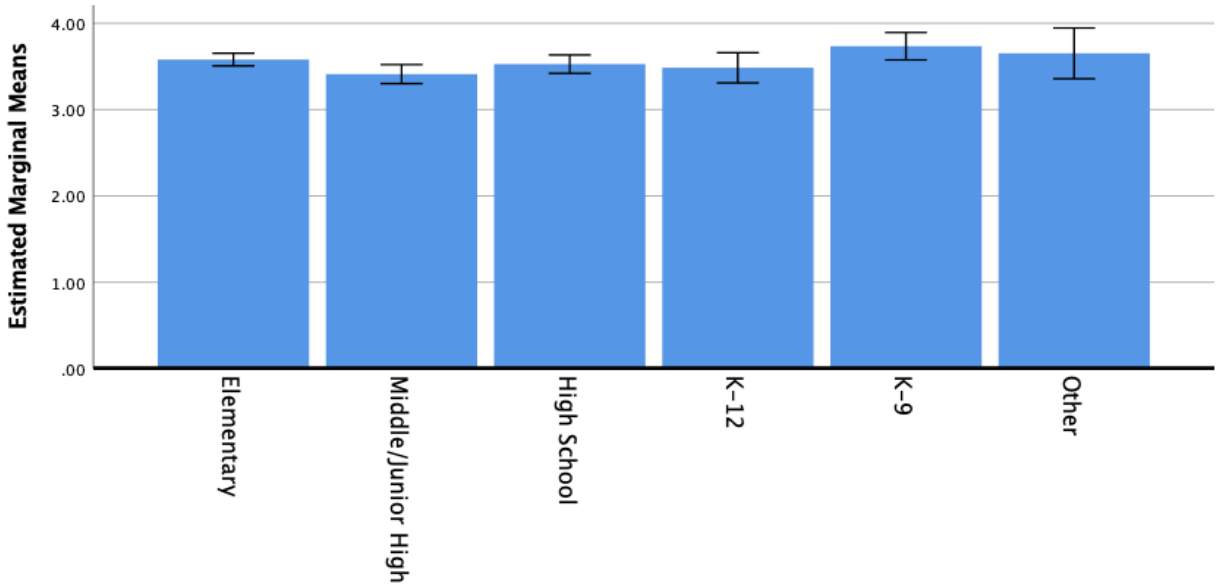
Differences Among Groups – Competency 1: Fostering Effective Relationships

Results indicate significant differences among the groups of teachers in how they responded to Competency 1: Fostering Effective Relationships (F[5, 720]=2.63, p=0.023, η^2=0.018). Specifically, the post-hoc tests indicate middle/junior high and K-9 teachers are statistically significantly different (mean difference=0.32; p=0.016).

Although statistically significant difference arises, the magnitude or effect size of this difference between groups is small. The very small magnitude or effect size and the largely consistent averages suggest that professional needs for Competency 1: Fostering Effective Relationships are relatively uniform. One implication arising from this result is that professional learning addressing Competency 1: Fostering Effective Relationships would not need to be customized for groups of teachers working at different grade levels.

Figure 8

Differences Among Groups - Competency 1: Fostering Effective Relationships



Note. 95% CI means that you can be 95% certain that the results are an accurate depiction of the true mean for the particular configuration of grades that are taught be a teacher.

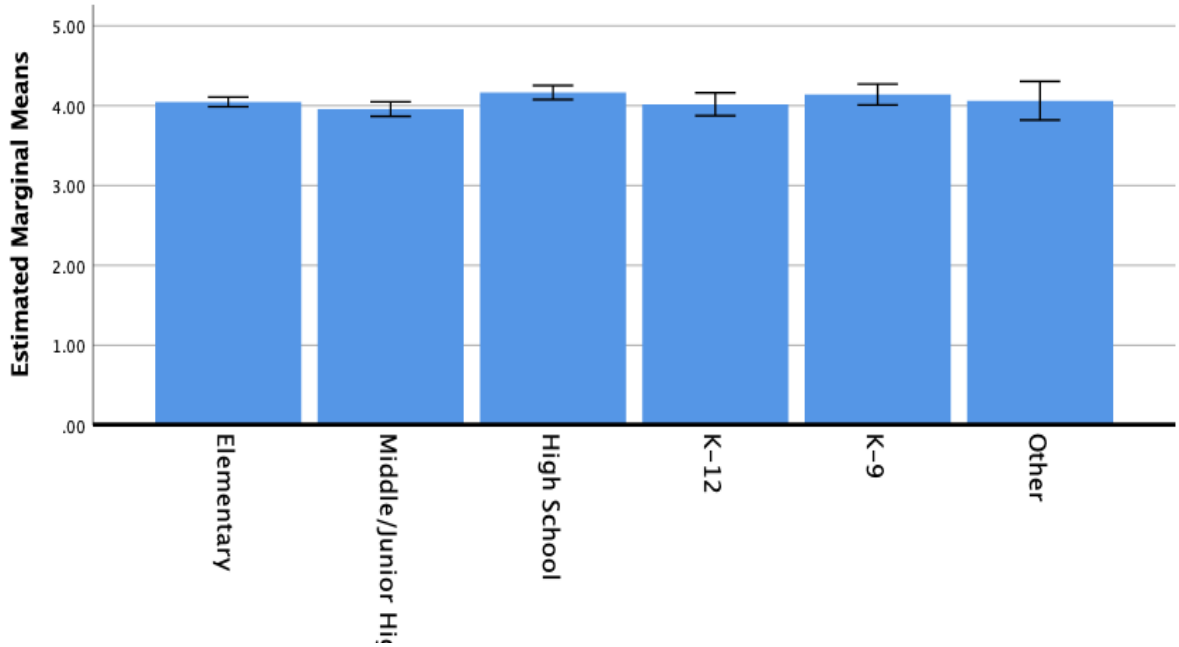
Differences Among Groups – Competency 4: Establishing Inclusive Environments

Results indicate statistically significant differences among the groups of teachers in how they responded to Competency 3: Fostering Effective Relationships (F[5, 720]=2.46 p=0.032, η^2=0.017). Specifically, the post-hoc tests indicate middle/junior high and high school teachers are statistically significantly different (mean difference=0.21; p=0.020).

Although statistically significant differences arise, the magnitude or effect size of those differences is very small. The small effect sizes and the largely consistent averages suggest that professional needs for Competency 4: Establishing Inclusive Environments are relatively uniform. One implication arising from this result is professional learning addressing Competency 4: Establishing Inclusive Environments would not need to be customized for teachers working at different grade levels.

Figure 9

Differences Among Groups - Competency 4: Establishing Inclusive Environments



Note. 95% CI means that you can be 95% certain that the results are an accurate depiction of the true mean for the particular configuration of grades that are taught be a teacher.

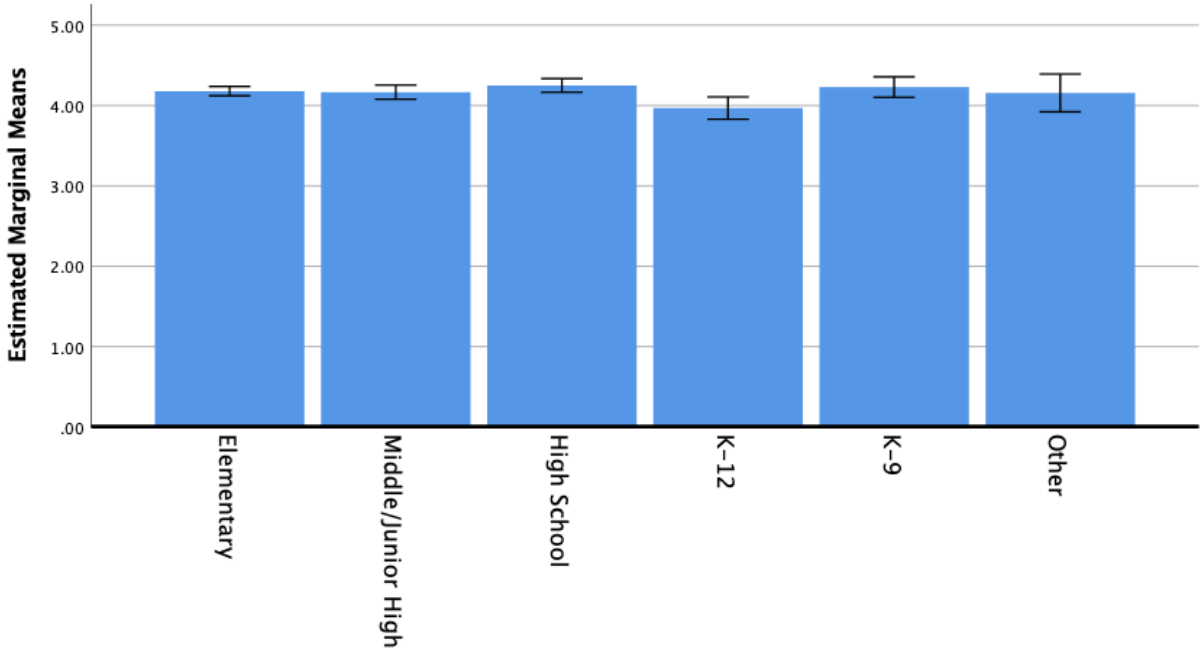
Differences Among Groups - Competency 6: Adhering to Legal Frameworks and Policies

Results indicate statistically significant differences among the groups of teachers in how they responded to Competency 6: Adhering to Legal Frameworks and Policies (F[5, 720]=2.45, p=0.033, η^2=0.017). Specifically, the post-hoc tests indicate high school and K-12 teachers are statistically significantly different (mean difference=0.28; p=0.011).

Although statistically significant differences arise, the magnitude or effect size of those differences is small. This means that while differences between teachers from various grade levels is statistically significant, the magnitude or effect size of the difference between the groups is very small. The small effect sizes and the largely consistent averages suggest that professional needs for Competency 6: Adhering to Legal Frameworks and Policies are relatively uniform. One implication arising from this result is professional learning addressing Competency 6: Adhering to Legal Frameworks and Policies would not need to be customized for teachers working at different grade levels.

Figure 10

Differences Among Groups - Competency 6: Adhering to Legal Frameworks and Policies



Note. 95% CI means that you can be 95% certain that the results are an accurate depiction of the true mean for the particular configuration of grades that are taught be a teacher.

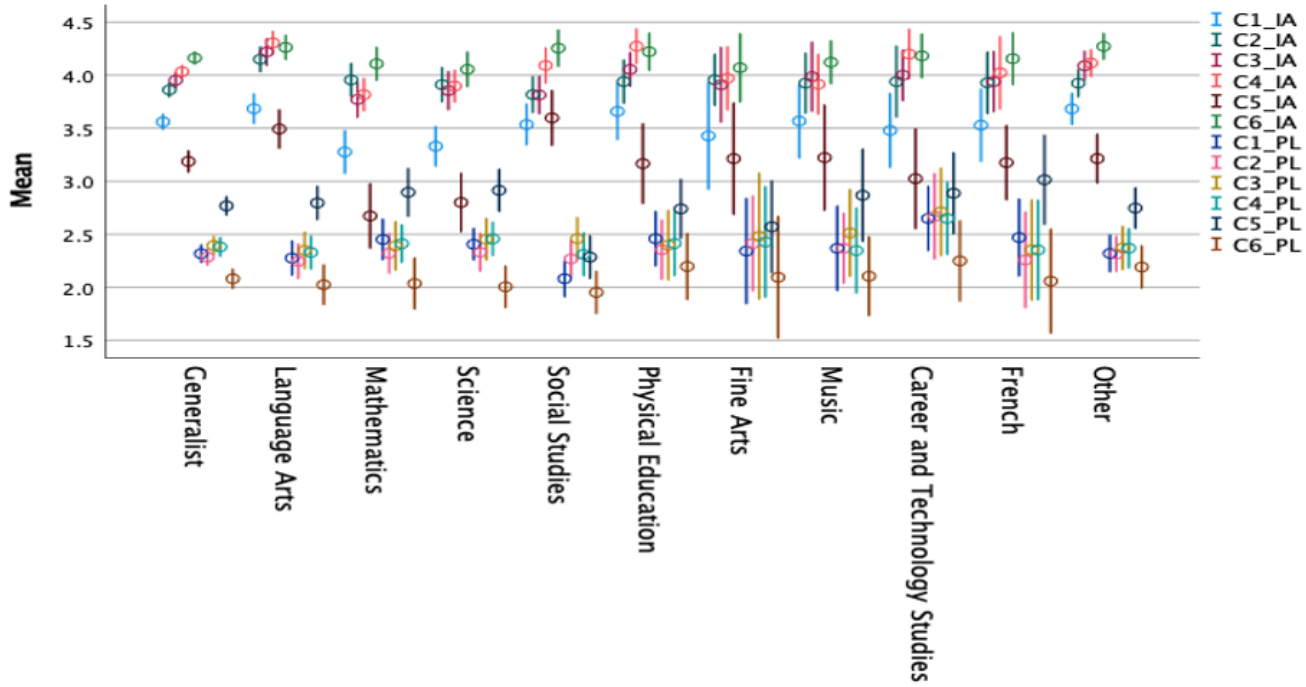
Means of Teacher Survey Results Analysed by Teachers' Subject Specialization

Teachers were asked to indicate their subject specialization. Figure 11 show the results from Implementation Advancement and Professional Learning Needs presented with confidence intervals. Results indicate teachers with different subject specializations responded in ways that are statistically significantly different ($F[120, 7020]=1.81$, $p<0.001$, Pillai's Trace=0.300, $\eta^2=0.030$). Specifically, Competency 1: Fostering Effective Relationships, Competency 2: Engaging in Career-Long Learning, Competency 3: Demonstrating a Professional Body of Knowledge, Competency 4: Establishing Inclusive Environments, and Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit had statistically significant differences.

In practical terms, there are modest differences between two groups, social studies and arts education teachers, and mathematics and science teachers across the various competencies. By implication, those planning professional learning opportunities might differentiate the professional learning for Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit according to this subject area difference.

Figure 11

Results of Teacher Survey Analyzed by Subject Specialization Displayed on an Interval Plot



Differences among Groups on Implementation Advancement – Subject Specialization

While most of the teachers in each subject area responded relatively similarly, Competency 5: Applying Foundational Knowledge for First Nations, Métis and Inuit education, similar to Year 1, showed interesting differences among the Mathematics and Science specialization teachers. Specifically, results for mathematics teachers indicating *Implementation Advancement* for Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit were statistically significantly ($p<0.05$) different from all other specialization teachers: generalist (mean difference=0.514), language arts (mean difference=0.820), and social studies (mean difference=0.924). Also, results for science teachers indicating *Implementation Advancement* for Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit were statistically significantly ($p<0.05$) different from all other specialization teachers: language arts (mean difference=0.693), and social studies (mean difference=0.797).

In other words, mathematics and science teachers report in ways that were significantly lower than generalist and language arts teachers for Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit. Social studies teachers were significantly further along than all other teachers in implementation advancement. The result suggests a substantial break in disciplinary knowledge and about orientations toward non-Indigenous and Indigenous views of maths and sciences.

This difference might be attributed to differences in Programs of Study for the various subject areas. It might also be attributed to the forms of resources teachers are accessing in their teaching.

Further, results could also be attributed to the forms of professional learning that teachers' access. There are forms of professional learning that have a positive impact on teaching practices, including teaching practices and improvements in mathematics and sciences; however, these forms of professional learning typically extend over a lengthy interval and require teachers to work through iterative cycles of improvement (Chu et al., 2020; Timperley et al., 2007). In looking at the results from Table 9, teachers report that these forms of professional learning are not positively impacting their practices to fulfill their potential. It is also worth considering professional learning that integrates Competency 3: Demonstrating a Professional Body of Knowledge, Competency 4: Establishing Inclusive Environments, and Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit as these three competencies touch on the core of teaching.

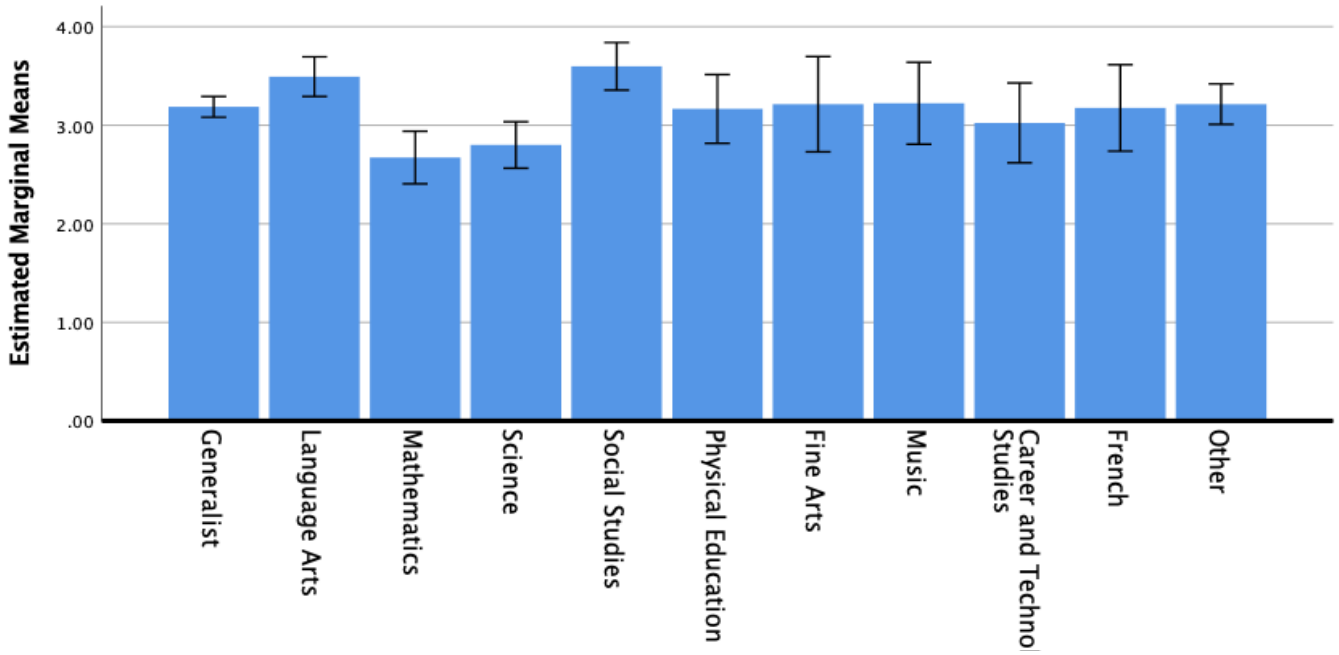
Working together through professional learning, over time, would provide teachers with opportunities to work through areas of strength to determine how to embed Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit into their practice. Further consideration should be given to providing teachers and leaders (Carr-Stewart, 2019) with professional learning focused on:

- land-based models of learning for all students. Land-based learning designs and pedagogies are appropriate in face-to-face and online learning environments. Given the current situation, land-based orientations act as counterweight to web-based or distance learning
- drawing on the natural environment around schools, homes, and in communities for mathematics and scientific inquiry (Mitchell, 2009)

Consistent with Year 1 survey results, Year 2 survey results are clear: further attention in professional learning for appropriate implementation advancement should be considered (Sterenberg, 2013).

Figure 12

Differences among Subject Discipline Groups on Implementation Advancement –Subject Specializations: Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit

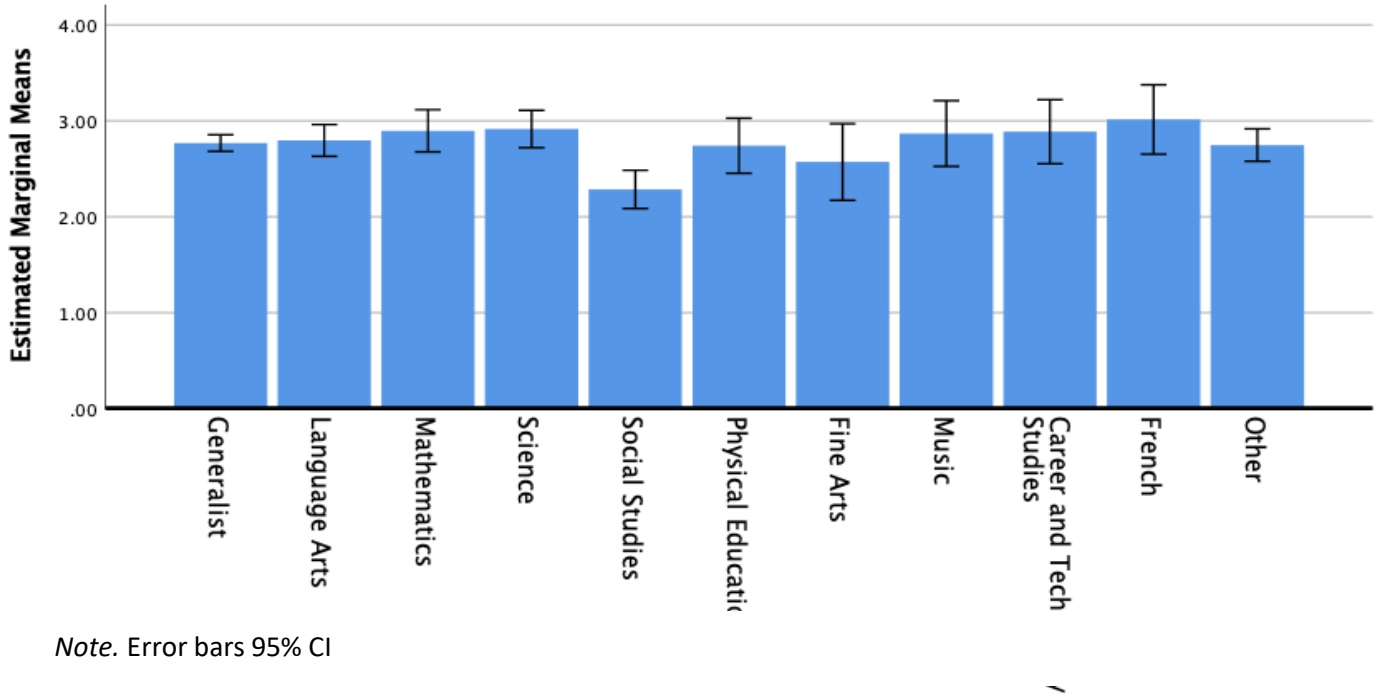


Note. 95% confidence levels (CI) indicate where we can be 95% certain that the average for this subject specialization is accurate. Non overlapping confidence intervals signify significant differences.

Specifically, the social studies teachers indicated they needed Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit professional learning significantly less (p<0.05) than other specialization sections teachers: generalist (mean difference=0.483), language arts (mean difference=0.511), mathematics (mean difference=0.611), science (mean difference=0.630), French (mean difference=0.729), and other (mean difference=0.462).

Figure 13

Differences among Subject Discipline Groups on Professional Learning Needs – Subject Specializations: Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit



Note. Error bars 95% CI

Means of Teacher Survey Results Analysed by Teachers' Years of Experience Teaching in Alberta

Teachers were asked to indicate their years of teaching experience in Alberta. Figure 14 show the results from *Implementation Advancement* and *Professional Learning Needs* presented as an interval plot. The error bars in Figure 14 highlight the differences between implementation advancement and professional learning needs at 95% confidence interval. The analysis was conducted using a multivariate analysis of variance (MANOVA).

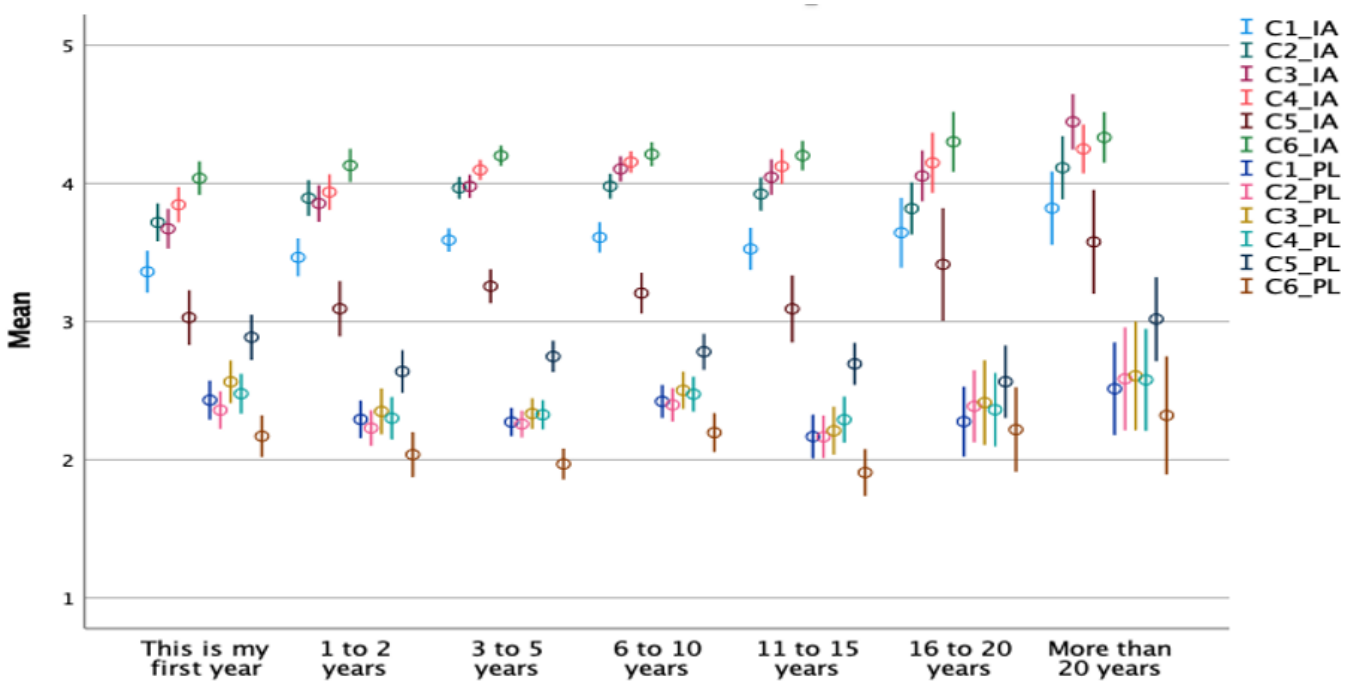
Means of Teacher Survey Results Compared by Years of Teaching Experience in Alberta

Teachers were asked to indicate their years of teaching experience in Alberta. Results indicate teachers with different years of teaching experience responded to the implementation advancement and professional learning items in ways that were statistically different. (F[72, 4206]=1.949, p<0.001, Pillai's Trace=0.194, η^2=0.032). Generally, the patterns within teachers' responses indicated the more years of experience they had teaching in Alberta, the more they enacted each competency and the less they need professional learning for each competency. However, the results for two of the measures are worth noting: Competency 4: Establishing Inclusive Environments– Professional Learning Needs, and Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit – Professional Learning Needs. While these two competencies did not show a statistically significant difference based on different years of teaching experience, statistically significant differences were noted in teachers' subject specialization. Effect sizes are also marginally larger for differences between more experienced versus less experienced teachers. As indicated previously, it would be advisable to find ways to integrate

competencies 4, and 5 to meet teachers' professional learning needs to assist teachers in creating and enacting designs for learning that meet the needs of all students.

Figure 14

Results of Teacher Survey Analyzed by Years of Teaching Experience Displayed on an Interval Plot

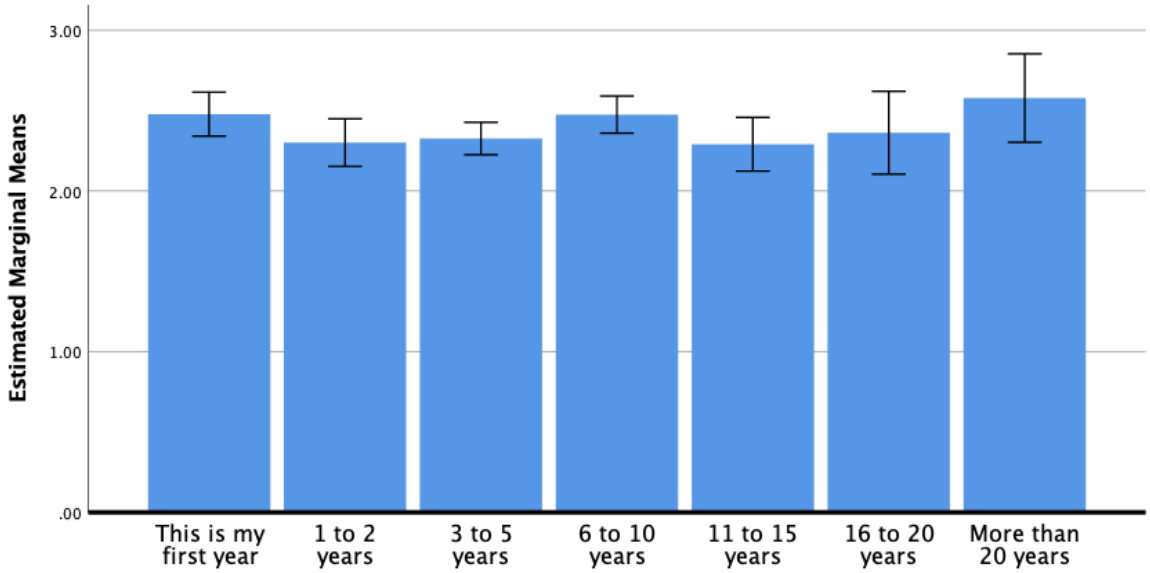


Differences among Groups on Professional Learning Needs Competency 4: Establishing Inclusive Learning Environments and Competency 5: Applying Foundational Knowledge for First Nations, Métis and Inuit – Years of Teaching Experience in Alberta

Teachers' responses to Competency 4: Establishing. Inclusive Environments (Figure 15) and Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit (Figure 16) indicated no statistically significant differences among any of the groups in terms of Professional Learning Needs. This indicates all teachers, regardless of the years of teaching in Alberta, enact a similar level of Competency 5: Applying Foundational Knowledge About First Nations, Métis, and Inuit.

Figure 15

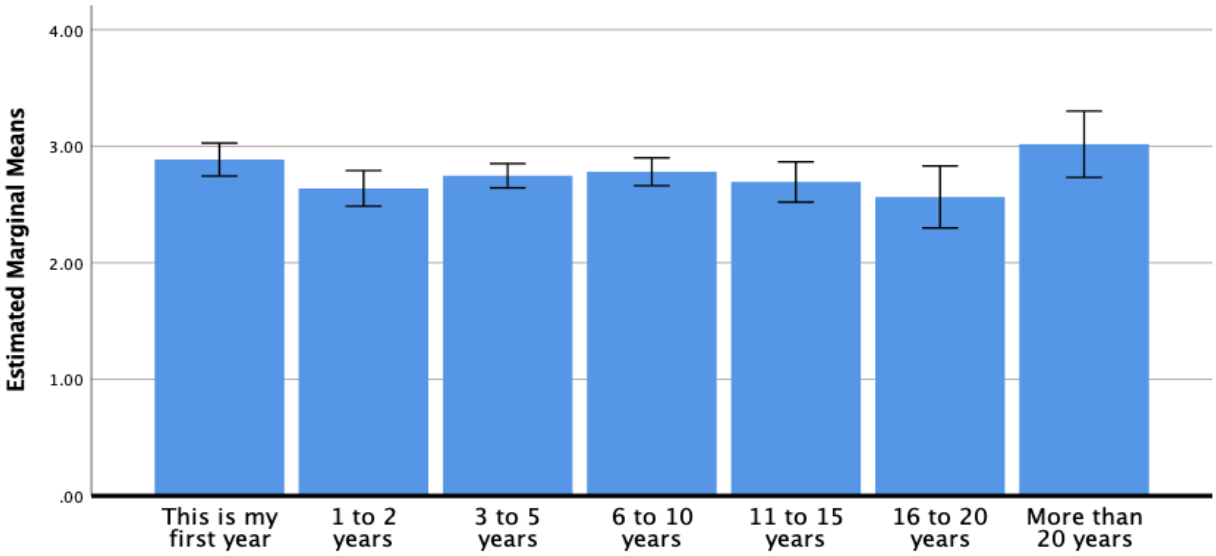
Differences Among Groups on Professional Learning Needs - Years of Teaching Experience in Alberta Competency 4



Note. Error bars 95% CI

Figure 16

Differences Among Groups on Professional Learning Needs - Years of Teaching Experience in Alberta Competency 5



Note. Error bars 95% CI

Summary of Teacher Survey Results

This section of the report summarizes the results of the teacher survey related to implementation advancement, professional learning needs, participation in various types of professional learning activities, impact of professional learning on teaching practice, and consideration of results in terms of demographic data.

1. In terms of implementation advancement, Alberta teachers responded to surveys in similar ways, indicating that that they typically fall somewhere in the Enacting or Adapting levels, or at the mid points in the five-point scale.

2. Although a year over year comparison reveals an overall decrease in implementation advancement for competencies 1, 2, 3, 4, and 6 and an increase in Competency 5, claims about a longitudinal trend cannot be warranted with only 2 years.

3. There has been an overall increase in participating teachers' need for professional learning beyond the levels they are currently accessing.

4. Teachers indicated low levels of need of professional learning related to the six competencies. Although generic or similarly structured professional learning may be designed to further implementation in most cases, customization by subject discipline background is warranted for Competency 5: Applying Foundational Knowledge about First Nations, Métis and Inuit. Distinctions about the professional learning needs of K-9 and high school teachers could also be considered for Competency 5. Similarly, those responsible for designing and leading professional learning might recognize modest differences among language arts, arts education, social studies, and mathematics/science teachers for Competency 5: Applying Foundational Knowledge about First Nations, Métis and Inuit.

5. Approaches to professional learning such as iterative cycles of learning sustained over time, integrating competencies 3, 4, and 5, and land-based approaches deserve consideration. In addition, social studies teachers could be well positioned to take leadership roles for advance implementation of Competency 5, although no particular subject specialization differences were evident for the other competencies.

6. The comparison of the results with the demographic data indicated, although there is substantial variation at the individual teacher level about implementing the six (6) competencies in their classroom or school, there are similar patterns for most of the competencies. The exceptions are for Competency 4: Establishing Inclusive Learning Environments and Competency 5: Applying Foundational Knowledge about First Nations, Métis and Inuit as these two competencies showed no significant variation.

7. The comparison of the results with the demographic data indicated the grade level teaching assignment, the subject matter specialization, and experience levels of teachers have very small or modest impact on their perceptions. Teachers with more than two years of

teaching experience are generally on par with teachers in their first year or two of teaching in understanding and enacting the competencies.

8. Similar to Year 1 survey results, math-science teachers in particular, but any teacher of mathematics and science subjects, continue to require sensitive and sensible knowledge about introducing traditional, foundational knowledge from a non-Indigenous perspective in the classroom. Professional learning about land-based approaches to curriculum implementation, and the use the natural environment around schools and community to further mathematics and scientific inquiry, may be desirable.

9. To advance implementation, professional learning should attend to adapting existing routines to the six (6) competencies. Further work in using evidence from teachers' practice to further refine their instruction is relevant. Flexibility is required in adapting to new ways of working. Teaching practices are evolving. The standard asks both individuals and school authorities to flexibly deal with ill-structured and novel problems. Alberta Standards policy supports flexibility and does not rigidify teaching practice.

10. Above all, a review of the types of professional learning that Alberta teachers have engaged in over the past year indicates a discernable shift away from face-to- face interactions, and collegial modes of professional learning, toward learning at a distance, choosing individually among online offerings, and having restricted opportunity to build collective efficacy as crucial to enhanced student achievement.

Leader Survey Results and Discussion

In this section we present and discuss the provincial results from the second year of implementation of the *Leadership Quality Standard* (LQS) (Alberta Education, 2018a) in three sub-sections:

1. Implementation advancement related to each LQS competency;
2. Professional learning level of need related to nine LQS competency and selected indicators; and
3. Participation in various types of professional learning activities.

Implementation Advancement Related to Each LQS Competency

Results displayed in Table 11 and Figure 17 below indicate that the overall mean for implementation advancement of the LQS competencies by participating leaders (*n*=444) is 3.85 which falls in the "enacting" phase on the 5-point scale outlined in Table 1 of this report. This result indicates that leaders are adapting to new ways of working related to the standard. School and jurisdiction leaders are using evidence from their practice to further refine their practices related to the competencies.

Seven of the nine competencies measured in this part of the survey correspond to the "enacting" phase on the *Implementation Advancement* scale:

Competency 1 – Fostering Effective Relationships (mean= 3.91),

Competency 2 – Modeling Commitment to Professional Learning (mean=3.84),

Competency 3 – Embodying Visionary Leadership (mean=3.94),

Competency 4 – Leading a Learning Community (mean=3.97),

Competency 5 – Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit (mean=3.38),

Competency 7 – Developing Leadership Capacity (mean=3.81), and

Competency 9 – Understanding and Responding to the Larger Societal Context (mean=3.74).

Results further indicate that Competency 6 – Providing Instructional Leadership (mean=4.05) and Competency 8 – Managing School Operations and Resources (mean=4.00) correspond to the "embedding" phase on the Implementation Advancement scale.

Table 11

Descriptive and Reliability for the Implementation Advancement Related to Nine LQS Competencies

Construct	Mean	Standard Deviation
Competency 1: Fostering Effective Relationships (α=0.72)	**3.91**	**0.52**
1. I build trusting relationships with parents/guardians of the students in my school or community of schools.	4.06	0.70
2. I build relationships that create a welcoming, caring, respectful, and safe learning environment.	4.35	0.59
3. I establish relationships with First Nations, Métis and Inuit	3.06	0.97

Construct	Mean	Standard Deviation
parents/guardians, Elders/knowledge keepers, local leaders and community members.		
4. I demonstrate a commitment to the health and well-being of all teachers, staff, and students.	4.27	0.68
5. I promote collective collaborative complex problem solving with the school community.	3.82	0.78
Competency 2: Modeling Commitment to Professional Learning (α=0.71)	**3.84**	**0.58**
1. I engage with others such as teachers, principals, and other leaders to improve my leadership practice.	4.12	0.73
2. I actively seek out feedback from a variety of sources to enhance my leadership practice.	3.87	0.82
3. I actively apply educational research to inform my leadership practice.	3.79	0.82
4. I engage members of the school community to build a shared understanding of current trends and priorities in the education system.	3.57	0.81
Competency 3: Embodying Visionary Leadership (α=0.73)	**3.94**	**0.49**
1. I communicate an education philosophy that is student-centered based on sound principles of effective teaching and leadership.	4.22	0.68
2. I demonstrate an appreciation for diversity.	4.27	0.65
3. I collaborate with other leaders and superintendents to address challenges and priorities.	3.81	0.83
4. I support school community members, including school councils, in fulfilling their roles and responsibilities.	3.72	0.82
5. I promote innovation that fosters a commitment to continuous improvement.	3.94	0.73
6. I use a range of data to determine progress towards achieving goals.	3.69	0.77
Competency 4: Leading a Learning Community (α=0.76)	**3.97**	**0.53**
1. I foster in the school community equality and respect with regard to rights as provided for in the *Alberta Human Rights Act* and the *Canadian Charter of Rights and Freedoms.*	3.96	0.76
2. I create an inclusive learning environment in which diversity is embraced, a sense of belonging is emphasized, and all students and staff are welcomed, cared for, respected, and safe.	4.24	0.64
3. I cultivate a culture of high expectations for all students and staff.	4.06	0.65
4. I create collaborative learning opportunities for other leaders, teachers, and support staff.	3.91	0.76
5. I collaborate with community service agencies to provide wrap-around supports for all students who may require them.	3.68	0.86
Competency 5: Supporting the Application of Foundational Knowledge About	**3.38**	**0.76**

Construct	Mean	Standard Deviation
First Nations, Métis, and Inuit (α=0.93)		
1. I support the school community in acquiring, designing, and planning learning opportunities for all students that accurately demonstrate the strength and diversity of First Nations, Métis, and Inuit peoples of Canada.	3.43	0.86
2. I align resources and building the capacity of the school and/or school authority to support First Nations, Métis, and Inuit student achievement.	3.37	0.86
3. I enable all school and/or school authority staff to gain an understanding of the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Métis, and Inuit.	3.40	0.84
4. I enable all school and/or school authority staff to gain respect for the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Métis, and Inuit.	3.42	0.85
5. I engage in practices to facilitate reconciliation efforts within the school and/or school authority.	3.32	0.89
Competency 6: Providing Instructional Leadership (α=0.84)	**4.05**	**0.53**
1. I build the capacity of all teachers to respond to the learning needs of every student.	3.91	0.67
2. I ensure that student instruction addresses learning outcomes outlined in the programs of study.	4.14	0.66
3. I demonstrate a strong understanding of assessment.	4.17	0.69
4. I demonstrate a strong understanding of effective pedagogy.	4.22	0.62
5. I interpret a wide range of data to inform school practices.	3.80	0.76
Competency 7: Developing Leadership Capacity (α=0.80)	**3.81**	**0.57**
1. I demonstrate collaborative decision-making informed by open dialogue.	4.10	0.66
2. I empower other educators (e.g. teachers) in educational leadership roles.	4.05	0.70
3. I facilitate the constructive involvement of school council(s) in school life.	3.40	0.88
4. I create opportunities for students to exercise their voice in school leadership and decision making.	3.48	0.89
5. I promote shared leadership among members of the school community.	4.00	0.71
Competency 8: Managing School Operations and Resources (α=0.84)	**4.07**	**0.54**
1. I apply principles of effective teaching and learning, child development, and ethical leadership to all decisions.	4.20	0.63
2. I align practices, procedures, policies, decisions, and resources with school and school authority vision, goals, and priorities.	4.01	0.73

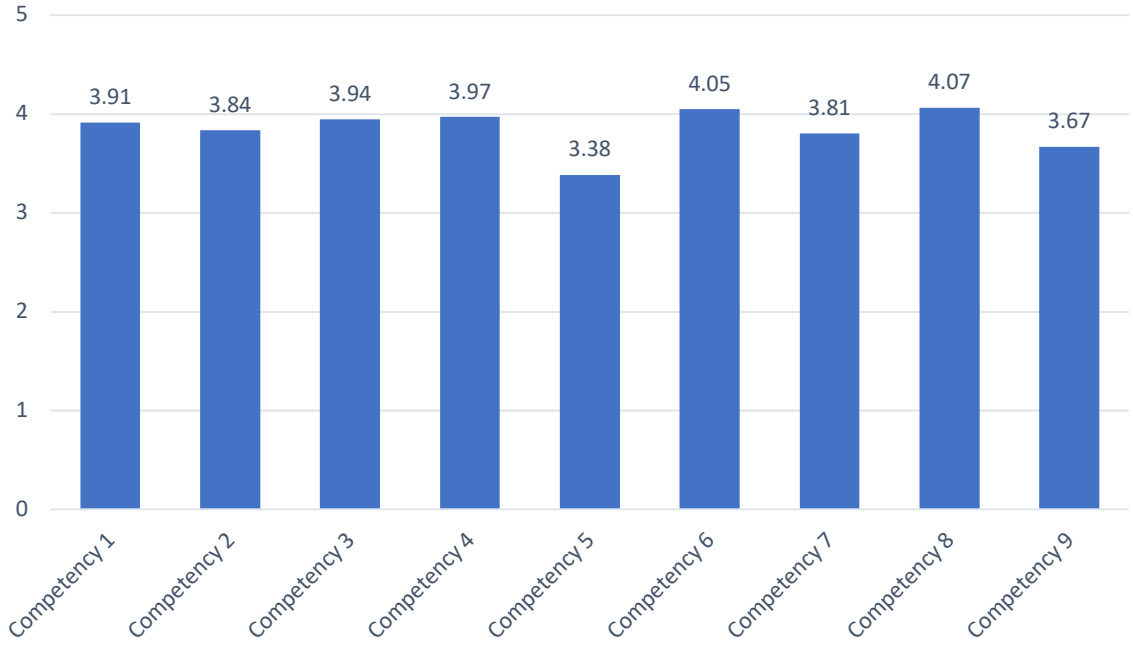
Construct	Mean	Standard Deviation
3. I follow through on decisions by allocating resources to provide the learning environments need to improve learning for all students.	4.04	0.71
4. I facilitate access to appropriate technology and digital learning environments.	4.02	0.71
5. I ensure operations align with provincial legislation, regulations and policies, and the policies and processes of the school authority.	4.06	0.71
Competency 9: Understanding and Responding to the Larger Societal Context (α=0.78)	**3.67**	**0.63**
1. I support members of the school community understand the legal frameworks and policies of the Alberta Education system.	3.64	0.84
2. I represent the needs of students at all levels of the education system.	4.13	0.67
3. I engage local community members to gain an understanding of the local context.	3.27	0.93
4. I demonstrate an understanding of the ways local, provincial, and international issues and trends impact education.	3.62	0.81
5. I facilitate conversations with stakeholders regarding matters impacting schools and school authorities.	3.67	0.85

Note. *Cronbach alpha values indicate internal consistency for each competency and were calculated using all Alberta leader survey responses (*n*=444).

Figure 17 provides a visual overview of the means related to implementation advancement for each of the nine LQS competencies.

Figure 17

Comparison of Means on the Implementation Advancement Related to Nine LQS Competencies



Note. 5-point Likert scale: 1=not yet, 2=initiating, 3=enacting, 4=embedding, and 5=extending.

The following table (Table 12) provides an overview of the nine competencies in the Leadership Quality Standard to implementation advancement.

Table 12

Overview of Nine Competencies Related to Implementation Advancement for LQS Competencies

Scale	Mean	Competency
Enacting – Individuals are using evidence from their practice to further refine their practices related to the competencies. They are adapting to new ways of working. Practices are evolving that allow individuals/systems to flexibly navigate the ill-structured, novel problem-solving nature of practice in response to the integrated nature of the competencies articulated in the standard.	3.91	Competency 1: Fostering Effective Relationships
	3.84	Competency 2: Modeling Commitment to Professional Learning
	3.94	Competency 3: Embodying Visionary Leadership
	3.97	Competency 4: Leading a Learning Community
	3.38	Competency 5: Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit
	3.81	Competency 7: Developing Leadership Capacity
	3.67	Competency 9: Understanding and Responding to the Larger Societal Context
Embedding - Individuals are improving/strengthening competency levels. Individuals/systems are using evidence to confirm that the competencies in this standard are now part of common everyday practice	4.05	Competency 6: Providing Instructional Leadership
	4.07	Competency 8: Managing School Operations and Resources

Box and Whisker Plot

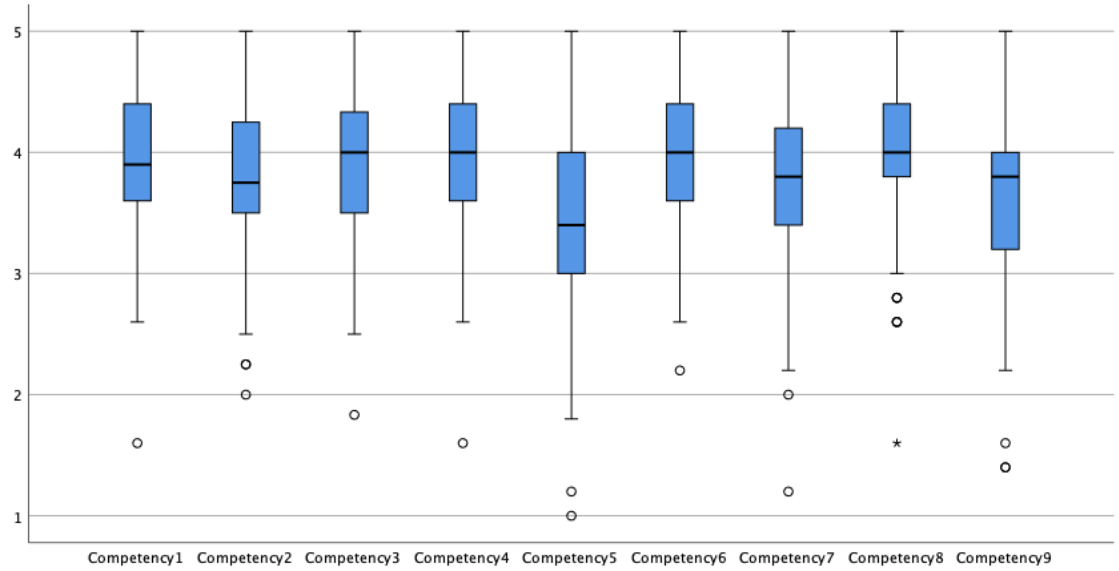
The following box and whisker plot (Figure 18) shows both the distribution and variation within the data set. A box and whisker plot indicates five measures: the minimum score, lower quartile, median, upper quartile, maximum score, with the whiskers representing the lower 25% of the scores and the upper 25% of the scores for each of the five competencies. In addition to these five measures, the box and whisker plot in Figure 19 includes the outliers in the data set (indicated by small circles). The

outliers in the data are all beyond the lower quartile, indicating some leaders are still within the awareness and initiating or early adoption phases of implementation advancement.

As can be observed in the box and whisker plot, there is some positive skewing in three of the competencies; however, for most competencies the median falls midpoint in the interquartile range indicating a fairly normal distribution. The upper range of the data is consistently at the top of the range indicating a number of the participating leaders are reporting they are now establishing the LQS competencies within a variety of school authority planning process, division-wide and school improvement plans, and growth plans.

Figure 18

Distribution and Variance in Implementation Advancement Related to LQS Competencies



Comparison of Year 1 and Year 2 Results

Table 13 provides a comparison of year one and year two results on implementation advancement of the LQS competencies. You will notice a slight change, either up or down, between the two years. Leaders report a slight decrease in seven of the competencies in the implementation advancement in the second year. There have been slight increases in competencies 5 and 9. The difference between year 1 and year 2 results on implementation advancement on most competencies are not significant. Trends cannot be discerned from only two longitudinal points in time.

Table 13

Comparison Between Year One and Year Two Results of Implementation Advancement

Competency	**Year One (*n*=630)**	**Year Two (*n*=444)**
Competency 1: Fostering Effective Relationships	3.84	3.91
Competency 2: Modeling Commitment to Professional Learning	4.20	3.84
Competency 3: Embodying Visionary Leadership	4.05	3.94
Competency 4: Leading a Learning Community	4.31	3.97
Competency 5: Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit	3.37	3.38
Competency 6: Providing Instructional Leadership	4.23	4.05
Competency 7: Developing Leadership Capacity	4.15	3.81
Competency 8: Managing School Operations and Resources	4.28	4.07
Competency 9: Understanding and Responding to the Larger Societal	3.66	3.67

Professional Learning Level of Need Related to Nine LQS Competencies

The survey asked leaders to indicate their need for professional learning for nine of the LQS competencies. Table 14 and Figure 19 provide the aggregated results from the leaders responding to this survey. Consistent with Year 1 results, leaders report a low level of need with an overall mean around 2.32.

It is important to cross reference these results with the results from Part 1 of the survey- Implementation Advancement Related to Each Competency and Part 3 of the survey - Participation in Various Types of Professional Learning Opportunities. The overall mean for Implementation Advancement (3.85) indicates that school and district leaders are at the enacting or adapting phase of implementation in their practice. As leaders are still adapting to new ways of working and leading, additional professional learning to support the competencies in the LQS is warranted. Moreover, averages at the entire competency level overlook different means and variation at the sub-competency level. For example, in competency 6, the overall average is 2.28, but range from 2.61 for helping teachers individuate instruction to 2.00 for understanding particular program outcomes.

Table 14

Descriptive and Reliability Statistics for Professional Learning Related to Nine LQS Competencies

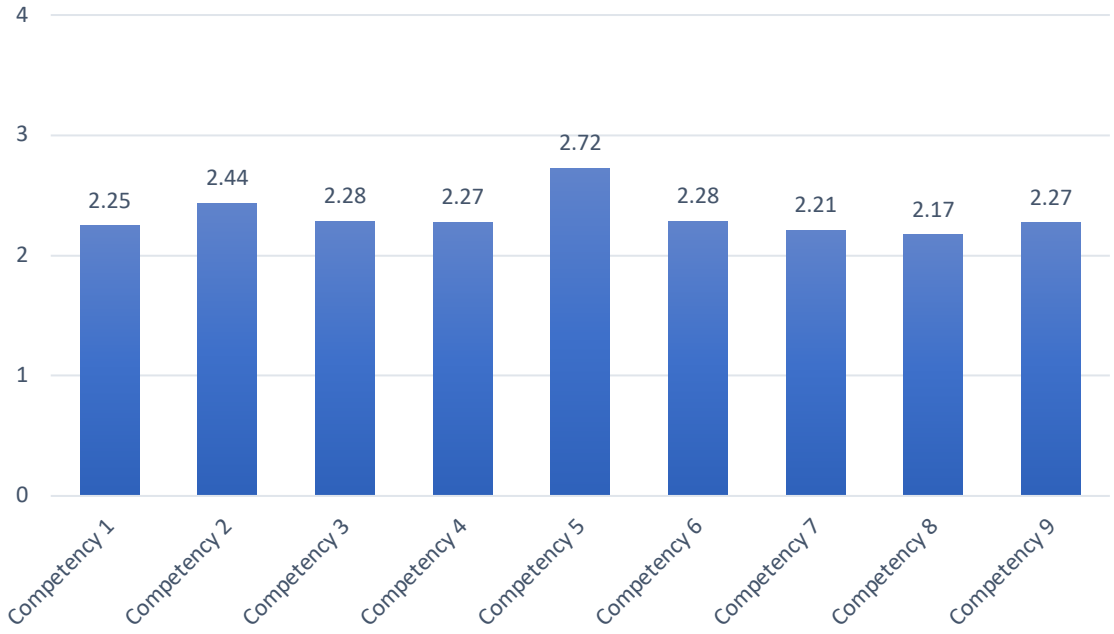
Construct	Mean	Standard Deviation
Competency 1: Fostering Effective Relationships (α=0.87)	**2.25**	**0.75**
1. I require PL about building trusting relationships with parents/guardians of students in my school or community of schools.	1.91	0.90
2. I require PL about creating a welcoming, caring, respectful, and safe learning environment.	1.89	0.96
3. I require PL about establishing stronger relationships with First Nations, Métis and Inuit parents/guardians, Elders/knowledge keepers, local leaders and community members.	2.83	0.83
4. I require PL about demonstrating a commitment to the health and well-being of all teachers, staff, and students.	2.30	0.98
5. I require PL about strengthening relationships to promote collective, collaborative, complex problem solving with the school community.	2.28	0.94
Competency 2: Modeling Commitment to Professional Learning (α=0.81)	**2.44**	**0.65**
1. I require PL about engaging with others to improve my leadership practice (e.g. with teachers, principals, other leaders).	2.37	0.89
2. I require PL about seeking out feedback from a variety of sources to enhance my leadership practice.	2.32	0.83
3. I require PL about new developments in leadership research and theory.	2.63	0.77
4. I require PL about engaging members the school community to build a shared understanding of current trends and priorities in the education system.	2.42	0.76
Competency 3: Embodying Visionary Leadership (α=0.86)	**2.28**	**0.71**
1. I need PL on communicating an educational philosophy that is student-centered and based on sound principles of effective teaching and leadership.	2.12	0.88
2. I require PL about better appreciating diversity.	2.17	0.91
3. I require PL about developing collaboration among leaders.	2.30	0.90
4. I require PL about promoting innovation and continuous improvement.	2.43	0.88
5. I require PL about using a range of data to determine progress towards goals.	2.40	0.82
Competency 4: Leading a Learning Community (α=0.86)	**2.27**	**0.71**
1. I require PL about fostering equality and respect for rights as provided in the *Alberta Human Rights Act* and *the Canadian Charter of Rights and Freedoms*.	2.21	0.85
2. I require PL about creating an inclusive learning environment in which	2.13	0.93

Construct	Mean	Standard Deviation
diversity is embraced, a sense of belonging is emphasized, and all students and staff are welcomed, cared for, respected, and safe.		
3. I require PL about cultivating a culture of high expectations for all students and staff.	2.19	0.93
4. I require PL about collaborative learning opportunities for other leaders, teachers, and support staff.	2.32	0.86
5. I require PL about collaborating with community service agencies to provide wrap-around supports for all students who may require them.	2.50	0.84
Competency 5: Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit (α=0.95)	**2.72**	**0.75**
1. I require PL about acquiring, designing, and planning learning opportunities that demonstrate the strength and diversity of First Nations, Métis, and Inuit peoples of Canada.	2.81	0.82
2. I require PL about aligning resources and building capacity of the school and/or school authority to support First Nations, Métis, and Inuit student achievement.	2.73	0.83
3. I require PL about enabling all school and/or school authority staff to understand the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Métis, and Inuit.	2.73	0.82
4. I require PL about enabling all school and/or school authority staff to respect the histories, cultures, languages, contributions, perspectives, experiences, and contemporary contexts of First Nations, Métis, and Inuit.	2.66	0.86
5. I require PL about facilitating reconciliation within the school and/or school authority.	2.69	0.83
Competency 6: Providing Instructional Leadership (α=0.90)	**2.28**	**0.74**
1. I require PL about strengthening the capacity of all teachers to respond to the learning needs of every student.	2.61	0.89
2. I require PL about instruction that addresses learning outcomes outlined in the programs of study.	2.00	0.86
3. I require PL about assessment.	2.19	0.92
4. I require PL about effective pedagogy.	2.14	0.85
5. I require PL about using data for improving the quality of the school and/or school authority.	2.45	0.83
Competency 7: Developing Leadership Capacity (α=0.89)	**2.21**	**0.72**
1. I require PL about collaborative decision making informed by open dialogue.	2.10	0.89
2. I require PL about empowering teachers in educational leadership roles.	2.18	0.89

Construct	Mean	Standard Deviation
3. I require PL about the constructive involvement of school council(s) in school life.	2.30	0.86
4. I require PL about strengthening students' voice in school leadership and decision making.	2.26	0.83
5. I require PL about promoting shared leadership among members of the school community.	2.19	0.85
Competency 8: Managing School Operations and Resources (α=0.91)	**2.17**	**0.74**
1. I require PL about applying principles of effective teaching and learning, child development, and ethical leadership.	2.14	0.86
2. I require PL about aligning practices, procedures, policies, decisions, and resources with school and school authority vision, goals, and priorities.	2.09	0.85
3. I require PL about allocating resources to improve the learning environments of all students	2.21	0.88
4. I require PL about facilitating access to appropriate technology and digital learning environments.	2.28	0.91
5. I require PL about aligning operations with provincial legislation, regulations and policies, and the policies and processes of the school authority.	2.15	0.84
Competency 9: Understanding and Responding to the Larger Societal Context (α=0.91)	**2.27**	**0.71**
1. I require PL about supporting members of the school community understand the legal frameworks and policies of the Alberta Education system.	2.29	0.86
2. I require PL about representing the needs of students at all levels of the education system.	2.20	0.88
3. I require PL about engaging local community to understand the local context.	2.25	0.76
4. I require PL about understanding the ways local, provincial, and international issues and trends impact education.	2.32	0.80
5. I require PL about facilitating conversations with stakeholders regarding matters impacting schools and school authorities.	2.31	0.83

Figure 19

Means of Professional Learning Need Related to Nine LQS Competencies



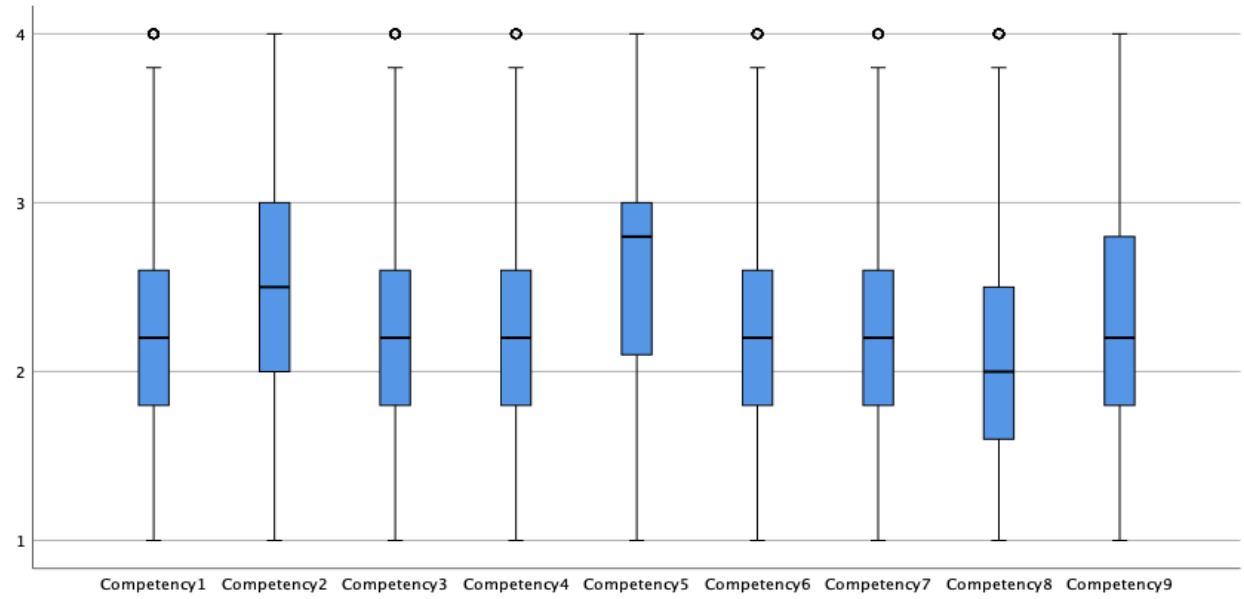
Note. 4-point Likert scale: 1= No need at present; 2= Low level of need; 3= Moderate level of need; 4= High level of need

Box and Whisker Plot

The following box and whisker plot (Figure 20) shows the distribution and variation within the data set for the four competencies. As can be observed in the box and whisker plot, there is some negative skewing in competencies 5 and 9. The outliers are all reporting a high level of professional learning need (level 4). Because scales are inverted for level of professional learning need– with 1 indicating no need and 4 indicating a high level of need–the results suggest that many school leaders are requesting they receive more professional learning than they currently receive for implementing the LQS.

Figure 20

Distribution and Variance in Professional Learning Needs Related to Nine LQS Competencies



Comparison of Year 1 and Year 2 Results

Table 15 provides a comparison of year one and year two results for professional learning needs of the LQS competencies. Perhaps most noticeable is a relatively low level of additional need beyond what leaders are currently accessing. However, the distribution as reported in the box and whisker plot (Figure 20) suggests that many participants who indicated a high level of need. School authorities are advised to examine their individual Year 2 division survey reports if they participated in the survey. Other school authorities might wish to conduct a needs analysis.

All competency areas were included in the survey this year. In subsequent years, participants will continue to respond to questions regarding their professional learning needs in each competency area to inform leadership development.

Table 15

Comparison Between Year One and Year Two Results for Professional Learning Needs

Competency	**Year One (*n*=630)**	**Year Two (*n*=444)**
Competency 1: Fostering Effective Relationships	na	2.25
Competency 2: Modeling Commitment to Professional Learning	2.40	2.44
Competency 3: Embodying Visionary Leadership	2.29	2.28
Competency 4: Leading a Learning Community	2.36	2.27
Competency 5: Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit	na	2.72
Competency 6: Providing Instructional Leadership	2.42	2.28

Competency 7: Developing Leadership Capacity	2.41	2.21
Competency 8: Managing School Operations and Resources	2.36	2.17
Competency 9: Understanding and Responding to the Larger Societal	na	2.27

Leader Participation in Professional Learning Opportunities

"Successful leadership can play a highly significant role in improving student learning" (Leithwood et al., 2004, p. 5). The work of district and school leaders can be conceptualized as complex, practical, problem solving. Leaders require a special type of thinking that is embedded in educational activity (Leithwood et al, 2004; Robinson, 2011; Hallinger, 2011, 2018). As calls for leaders to focus their attention on teaching and learning continue to grow, leaders increasingly must change their leadership practice (Mombourquette & Sproule, 2019). Mombourquette and Sproule contend, "to model a commitment to professional learning, effective educational leaders demonstrate the qualities of self-leadership" (p. 154). Learning how to increase their self-leadership, self-awareness, confidence, and proficiency leaders engage in a process of reflecting on action (Ibarra, 2015, p. 3).

It is evident from the results that leaders are engaged in numerous forms of professional learning to build their professional expertise, including attending courses and seminars (98%, 95%, 91%), participating in a professional learning network formed at the school authority level (85%), and attending conferences (76%). The results indicate leaders are attending to Competency 2: Modeling a Commitment to Professional Learning. Online courses, formal qualifications programs, and peer or self-observation or coaching as part of a formal school arrangement are not as widely considered for principals' professional learning, as in person professional learning, in person courses and seminars, or network participation.

Table 16

Frequencies and Reliability of Various Types of Professional Learning Accessed

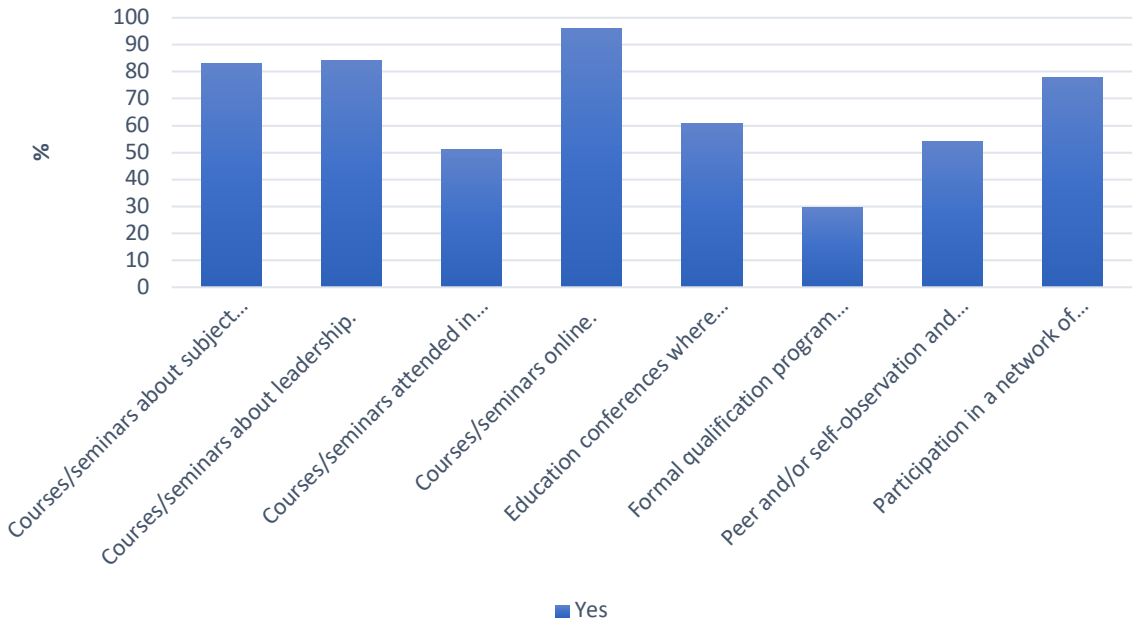
	Frequency (%)	
	Yes	**No**
In the last 12 months, did you participate in any of the following professional learning activities aimed at you as the school authority leader? **(α=0.62)**		
Courses/seminars about subject matter, teaching methods, or pedagogical topics.	245 (83%)	51 (17%)
Courses/seminars about leadership.	250 (84%)	47 (16%)
Courses/seminars attended in person.	150 (51%)	147 (49%)
Courses/seminars online.	284 (96%)	13 (4%)
Education conferences where teachers, principals, and/or researchers present their research or discuss educational issues.	182 (61%)	115 (39%)
Formal qualification program (degree program, certificate program).	88 (30%)	209 (70%)
Peer and/or self-observation and coaching as part of a formal school arrangement.	159 (54%)	138 (46%)
Participation in a network of school or school authority leaders	231 (78%)	66 (22%)

	formed specifically for the professional learning of school and school authority leaders.

The following graph (Figure 21) provides a visual representation of the data in Table 16.

Figure 21

Types of Professional Learning Accessed



Comparison of Year 1 and Year 2 Results

Table 16 provides a comparison of year one and year two results for form of professional learning accessed to support LQS implementation. Perhaps most remarkable, but understandable, is a shift in forms of learning from Year 1, marking the first year of LQS implementation, to Year 2 with the onset of the pandemic and public health advisories. Online attendance at seminars has shifted from 48% in 2019 to 96% in 2020; conference attendance has dropped from 79% to 61%; peer and self-observation has gone from 47% to 54%; registration in a formal credentialing program has gone from 14% to 30%. Presuming that random sampling is accurate, we are witnessing a transformation in the forms and formats chosen for professional leadership learning, or what is called the emergence of a Professional Learning Cloud (Moldoveanu & Narayandas, 2019).

Table 16

Comparison Between Year One and Year Two Results of Forms of Professional Learning Accessed

Form of Professional Learning Accessed	Year One (*n*=630)	Year Two (*n*=444)
Courses/seminars about subject matter, teaching methods, or pedagogical topics.	480 (91%)	245 (83%)
Courses/seminars about leadership.	426 (95%)	250 (84%)
Courses/seminar attended in person.	437 (98%)	150 (51%)
Courses/seminars online.	209 (47%)	284 (96%)
Education conferences where teachers, principals, and/or researchers present their research or discuss educational issues.	341 (76%)	182 (61%)
Formal qualification program (degree program, certificate program).	200 (45%)	88 (30%)
Peer and/or self-observation and coaching as part of a formal school arrangement.	257 (58%)	159 (54%)
Participation in a network of school or school authority leaders formed specifically for the professional learning of school and school authority leaders.	381 (85%)	231 (78%)

Summary of Leader Survey Results

This section of the report summarizes the results of the year 2 leader survey related to implementation advancement, professional learning needs, and participation in various types of professional learning activities. Although the instrumentation was not identical for teachers and leaders, four overall contrasts can be made:

1. Consistent with year 1 survey results, school and system leaders report that internal-to-school-system competencies are further advanced in implementation than those which require leadership outside the school system, such with parents, guardians, First Nations and Métis stakeholders, or in a larger social context. While leaders report small gains have been made in engaging as community leaders rather than just as instructional leaders, this is still an area that needs to be addressed to further advance LQS implementation.
2. In year 2, school and system leaders report having taken a step back in implementation of the LQS standard in seven of the competency areas. While the regression is minimal, it also worthy of attention. Whether this is a response to leading schools and school authorities during a pandemic is unclear and deserves further investigation.
3. School and system leaders' expressions of need for professional learning continue to be low, as in year 1; however, there is a negative skewing of the data and a number of outliers beyond the lower quartile range suggesting this deserves further investigation.

4. School leaders and system leaders have continued to engage in multiple forms of professional learning to advance implementation efforts. It is encouraging to see so many reporting they are participating in networks of leaders at the school and division levels designed for professional learning purposes.
5. The forms and formats of professional learning for Alberta school administrators have necessarily changed in the midst of the public health crisis, addressing onerous demands in closing and opening schools, helping move students and teachers online, and responding to public health advisories. At the same time, leadership development as offered by provincial, national and international post-secondary institutions is also changing from predominately face-to face interactions toward virtual offerings. What this means for implementation of the LQS standard is clear, but not so its enactment as behavioral change.

Superintendent Survey Results and Discussion

In this section we present and discuss the provincial results from the second year of implementation of the *Superintendent Leadership Quality Standard* (SLQS) (Alberta Education, 2018b) in three sub-sections:

1. Implementation advancement related to each SLQS competency;
2. Professional learning level of need related to seven SLQS competency and selected indicators; and
3. Participation in various types of professional learning activities.

Implementation Advancement Related to Each SLQS Competency

Results displayed in Table 17 and Figure 23 below indicate that the overall mean for implementation advancement of the SLQS competencies by participating superintendents (*n*=36) is 3.81 which falls in the "enacting" phase on the 5-point scale outlined in Table 1 in this report. This result indicates that superintendents are adapting to new ways of working related to the standard. School and jurisdiction leaders are using evidence from their practice to further refine their practices related to the competencies.

All of the seven competencies measured in this part of the survey correspond to the "enacting" or "adapting" phase on the Implementation Advancement scale: Competency 1 – Building Effective Relationships (mean= 3.68), Competency 2 – Modeling Commitment to Professional Learning (mean=3.94), Competency 3 – Visionary Leadership (mean=3.87), Competency 4 – Leading Learning (mean=3.91), Competency 5 – Ensuring First Nations, Métis and Inuit Education for All Students (mean=3.43), Competency 6 – School Authority Operations and Resources (mean=3.95), and Competency 7 – Supporting Effective Governance (mean=3.91).

As with the teacher and school leadership standards, superintendents' overall to the various competencies disguise important variations at the sub-competency level. For example, superintendents' responses to Building Effective Relationships averaged 3.68, but ranged from 4.23 in modelling ethical practices to 2.80 for building relationships to FNMI parents and elders and local leaders.

Table 17

Descriptive and Reliability for the Implementation Advancement Related to Seven SLQS Competencies

Construct	Mean	Standard Deviation
Competency 1: Building Effective Relationships (α=0.75)	**3.68**	**0.65**
1. I build relationships through collaborating with leaders in the school authority to build trusting relationships with parents/guardians of the students.	3.72	0.88
2. I build relationships with First Nations, Métis and Inuit parents/guardians, Elders, local leaders and community members.	2.80	1.16
3. I build relationships by modelling ethical leadership practices.	4.23	0.86
4. I establish constructive relationships with all members of the educational	3.77	0.82

Construct	Mean	Standard Deviation
community.		
5. I build relationships by facilitating the meaningful participation of all members of the school and local community.	3.87	0.86
Competency 2: Modeling Commitment to Professional Learning (α=0.78)	**3.94**	**0.59**
1. I communicate a student-centered philosophy based on sound principles of effective teaching and leadership.	4.07	0.87
2. I collaborate with all members of the jurisdiction and other superintendents to build professional expertise.	3.77	0.90
3. I actively seek out feedback from a variety of sources to enhance my leadership practice.	4.07	0.83
4. I apply educational research to inform my leadership practice.	3.87	0.78
5. I engage members of the school authority to establish a shared understanding of current trends and priorities in the education system.	3.93	0.64
Competency 3: Visionary Leadership (α=0.70)	**3.87**	**0.51**
1. I ensure the vision is informed by research on effective learning, teaching, and leadership.	3.93	0.74
2. I promote innovation that results in a commitment to continuous improvement.	4.03	0.81
3. I promote a common understanding of the school authority's goals, priorities, and strategic initiatives.	3.90	0.76
4. I ensure that the vision is expressed in the school authority's education plan and is responsive to the ongoing review of the school authority's achievements.	3.73	0.79
5. I ensure that the vision meets all requirements identified in provincial legislation.	3.77	0.73
Competency 4: Leading Learning (α=0.71)	**3.91**	**0.49**
1. I foster in the school community equality and respect with regard to rights as provided for in the *Alberta Human Rights Act* and the *Canadian Charter of Rights and Freedoms.*	4.10	0.66
2. I provide learning opportunities based on research informed principles to support building the capacity for all members of the school community to fulfill their educational roles.	3.77	0.63
3. I ensure that all instruction in the school authority addresses learning outcomes outlined in the programs of study.	3.90	0.76
4. I build school and jurisdiction leaders' capacities and hold them accountable for providing instructional leadership through effective support, supervision and evaluation.	3.87	0.90
5. I ensure that student assessment and evaluation practices are evidence-based and accurate.	3.93	0.64

Construct	Mean	Standard Deviation
Competency 5: Ensuring First Nations, Métis and Inuit Education for All Students (α=0.86)	**3.43**	**0.76**
1. I support staff in accessing the professional learning required to meet the learning needs of First Nations, Métis, Inuit and all other students.	3.67	0.96
2. I collaborate with neighbouring First Nations and Métis leaders, organizations and communities to optimize learning success and development of First Nations, Métis, Inuit and all other students.	2.73	1.08
3. I seek to understand the historical, social, economic, and political implications of treaties and agreements with First Nations; legislation and agreements negotiated with Métis; and residential schools and their legacy.	3.57	0.86
4. I align school authority resources to support First Nations, Métis, and Inuit student achievement.	3.50	1.04
5. I engage in practice to facilitate reconciliation within the school community.	3.70	0.79
Competency 6: School Authority Operations and Resources (α=0.49)	**3.95**	**0.45**
1. I provide direction on resource management in accordance with all statutory, regulatory, and school authority requirements.	3.80	0.85
2. I provide support for ongoing supervision and evaluation of all staff members in in relation to their respective professional responsibilities.	3.90	0.76
3. I establish data-informed strategic planning that are responsive to changing contexts.	3.83	0.79
4. I respect cultural diversity in differing perspectives in the school community.	4.30	0.70
5. I implement programs and procedures for the effective management of human resources in support of mentorship, capacity-building and succession planning.	3.93	0.83
Competency 7: Supporting Effective Governance (α=0.72)	**3.91**	**0.59**
1. I sustain a productive working relationship with the board, based on mutual trust, respect, and integrity.	4.03	0.81
2. I ensure all students and staff are provided with a welcoming caring, respectful and safe learning environment that respects diversity and fosters a sense of belonging.	4.23	0.68
3. I ensure that all students in the school authority have the opportunity to meet the standards of education set by the Minister of Education.	3.77	0.77
4. I support the regular review and evaluation of the impact of board policies.	3.70	0.92
5. I build the capacity of the board and staff to predict, communicate and respond to emergent circumstances, including emergency readiness and crisis management, and to political, social, economic, legal and cultural	3.80	1.06

Construct	Mean	Standard Deviation
contexts and trends.		

Note. *Cronbach alpha values indicate internal consistency for each competency and were calculated using all Alberta superintendent survey responses (*n*=36).

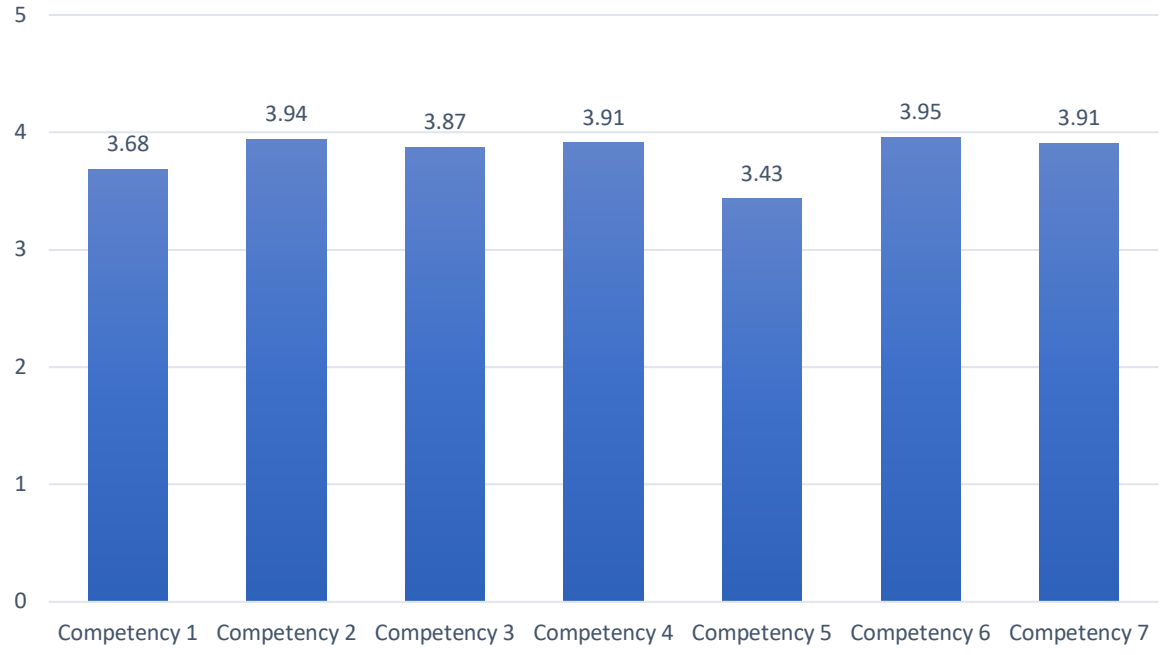
Table 18

Overview of Seven Competencies Related to Implementation for SLQS Competencies

Scale	Mean	Competency
Enacting – Individuals are using evidence from their practice to further refine their practices related to the competencies. They are adapting to new ways of working. Practices are evolving that allow individuals/systems to flexibly navigate the ill-structured, novel problem-solving nature of practice in response to the integrated nature of the competencies articulated in the standard.	3.68	Competency 1: Building Effective Relationships
	3.94	Competency 2: Modeling Commitment to Professional Learning
	3.87	Competency 3: Visionary Leadership
	3.91	Competency 4: Leading a Learning Community
	3.43	Competency 5: Supporting the Application of Foundational Knowledge About First Nations, Métis, and Inuit
	3.95	Competency 6: School Authority Operations and Resources
	3.91	Competency 7: Supporting Effective Governance

Figure 22

Comparison of Means on the Implementation Advancement Related to Seven SLQS Competencies



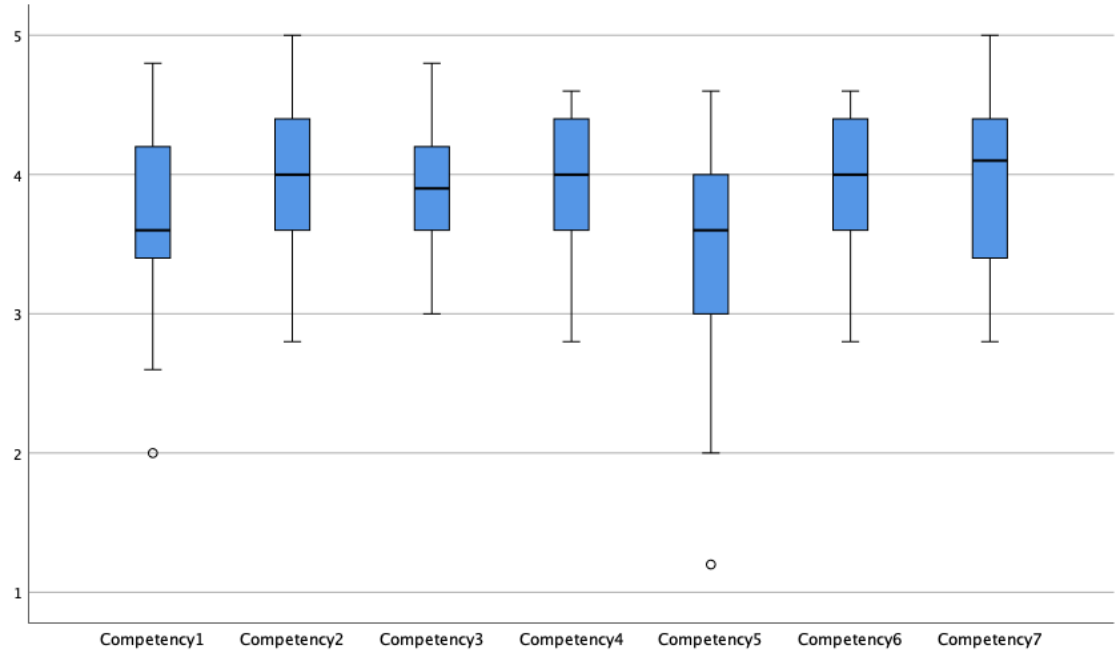
Box and Whisker Plot

The following box and whisker plot (Figure 23) shows both the distribution and variation within the data set. A box and whisker plot sets out five measures: the minimum score, lower quartile, median, upper quartile, maximum score, with the whiskers representing the lower 25% of the scores and 25% of the upper scores for each of the five competencies. In addition to these five measures, the box and whisker plot includes the outliers in the data set (indicated by small circles). The results indicate outliers in competencies 1 and 5.

As can be observed in the box and whisker plot below, there is skewing in the data for competencies 1 and 7; however, there is little skewing in the other five competencies indicating a fairly normal distribution.

Figure 23

Distribution and Variance in Implementation Advancement Related to SLQS Competencies



Comparison of Year 1 and Year 2 Results

Table 19 provides a comparison of year one and year two results for implementation advancement of the SLQS competencies. The results indicate slight variations between years one and two. This is reassuring, as the numbers of participants have doubled in year 2 of the survey. On the other hand, two temporal data points do not constitute a "trend".

Table 19

Comparison Between Year One and Year Two Results of Implementation Advancement

Competency	**Year One (*n*=17)**	**Year Two (*n*=36)**
Competency 1: Building Effective Relationships	3.69	3.68
Competency 2: Modeling Commitment to Professional Learning	4.11	3.94
Competency 3: Visionary Leadership	3.86	3.87
Competency 4: Leading Learning	3.87	3.91
Competency 5: Ensuring First Nations, Métis, and Inuit Education for All Students	3.48	3.43
Competency 6: School Authority Operations and Resources	3.97	3.95
Competency 7: Supporting Effective Governance	3.80	3.91

Professional Learning Level of Need Related to Seven SLQS Competencies

The survey asked superintendents to indicate their need for professional learning related to seven of the SLQS competencies. Table 20 and Figure 24 provide the aggregated results from the superintendents responding to this survey. As in year 1 of the survey, superintendents report a low level of need with an overall mean around 2.43.

It is important to cross reference these results with the results from Part 1 of the survey- Implementation Advancement Related to Each Competency and Part 3 of the survey - Participation in Various Types of Professional Learning Opportunities. The overall mean for implementation advances (3.81) indicates that school and district leaders are at the enacting phase of implementation in their practice, using evidence from their practice to further refine their practices related to the competencies. As superintendents are still in the process of adapting to new ways of working and leading, it might be that additional professional learning to support some competencies in the SLQS is warranted.

Table 20

Descriptive and Reliability Statistics for Professional Learning Related to Seven SLQS Competencies

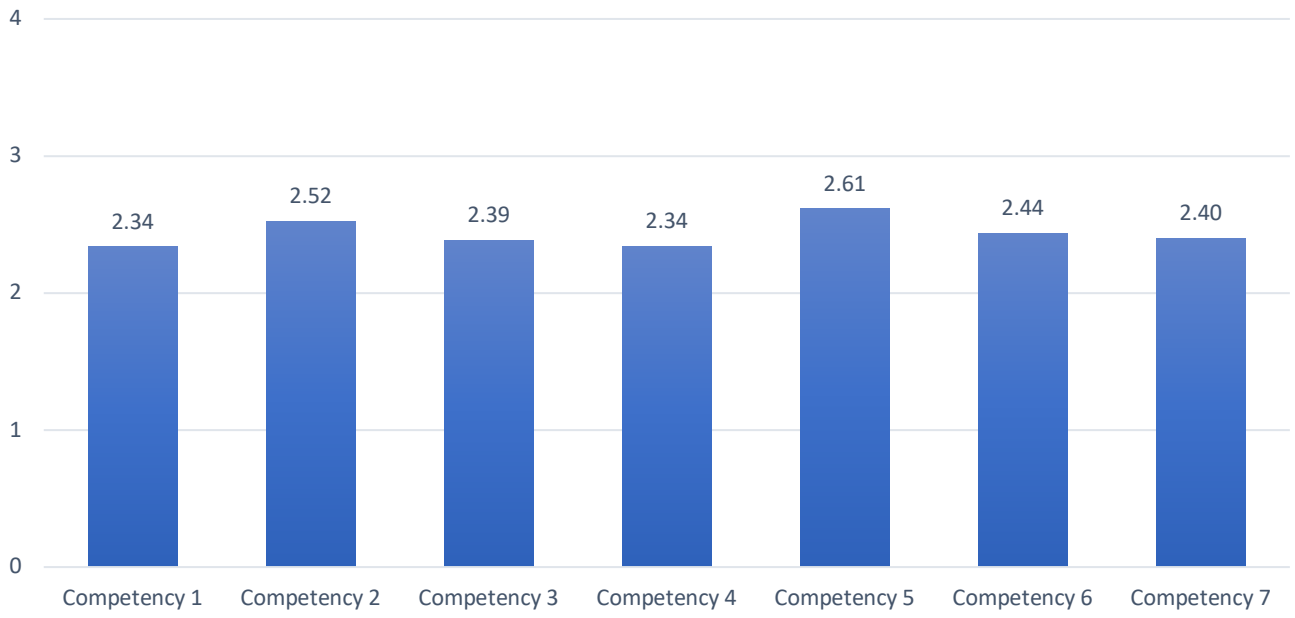
Construct	Mean	Standard Deviation
Competency 1: Building Effective Relationships (α=0.92)	**2.34**	**0.95**
1. Building collaborative, trusting relationships with parents/guardians of the students.	2.22	1.09
2. Building relationships with First Nations, Métis and Inuit parents/guardians, Elders, local leaders and community members.	2.61	0.99
3. Modelling ethical leadership practices.	2.25	1.24
4. Establishing constructive relationships with all members of the educational community.	2.18	1.09
5. Facilitating the meaningful participation of all members of the school and local community.	2.46	1.07
Competency 2: Modeling Commitment to Professional Learning (α=0.94)	**2.52**	**0.90**
1. Communicating a student-centered philosophy based on sound principles of effective teaching and leadership.	2.32	1.02
2. Collaborating with all members of the jurisdiction and other superintendents to build professional expertise.	2.39	1.10
3. Seeking feedback from a variety of sources to enhance my leadership practice.	2.50	1.07
4. New developments in leadership research and theory.	2.70	0.91
5. Current trends and priorities in the education system.	2.71	0.98
Competency 3: Visionary Leadership (α=0.96)	**2.39**	**0.97**
1. Ensure the vision is informed by research on effective learning, teaching, and leadership.	2.54	0.88
2. Promoting innovation and commitment to continuous improvement.	2.54	1.11
3. Promoting a common understanding of the school authority's goals,	2.18	1.06

Construct	Mean	Standard Deviation
priorities, and strategic initiatives.		
4. Ensure that the vision in the school authority's education plan is responsive to ongoing review of the school authority's achievements.	2.36	1.10
5. Ensure that the vision meets all requirements identified in provincial legislation.	2.32	1.12
Competency 4: Leading Learning (α=0.90)	**2.34**	**0.80**
1. Fostering equality and respect for rights as provided in the Alberta *Human Rights Act* and the *Canadian Charter of Rights and Freedoms*.	2.43	1.00
2. How to design professional learning for/with school and school authority leaders.	2.36	0.87
3. Ensuring that all instruction in the school authority addresses learning outcomes outlined in the programs of study.	2.25	1.04
4. Building school and jurisdiction leaders' capacities and holding them accountable for providing instructional leadership.	2.43	0.92
5. Student assessment and evaluation practices that are evidence-based and accurate.	2.25	0.93
Competency 5: Ensuring First Nations, Métis and Inuit Education for All Students (α=0.90)	**2.61**	**0.77**
1. Supporting staff in meeting the learning requires of First Nations, Métis, Inuit and all other students.	2.36	0.83
2. Collaborating with neighbouring First Nations and Métis leaders, organizations and communities to optimize learning.	2.75	0.89
3. The historical, social, economic, and political implications of treaties and agreements with First Nations; legislation and agreements negotiated with Métis; and residential schools and their legacy.	2.64	0.78
4. Aligning school authority resources to support First Nations, Métis, and Inuit student achievement.	2.61	1.07
5. Facilitating reconciliation within the school community.	2.71	1.01
Competency 6: School Authority Operations and Resources (α=0.94)	**2.44**	**0.96**
1. Resource management in accordance with all statutory, regulatory, and school authority requirements.	2.39	1.13
2. Supervision and evaluation of all staff members regarding their respective professional responsibilities.	2.39	1.10
3. Data-informed strategic planning.	2.43	1.07
4. Culturally diverse perspectives in the school community.	2.57	1.00
5. Effective management of human resources for mentorship, capacity-building and succession planning.	2.39	1.07
Competency 7: Supporting Effective Governance (α=0.93)	**2.40**	**0.98**

Construct	Mean	Standard Deviation
1. Sustaining productive working relationships with the board, based on mutual trust, respect, and integrity.	2.46	1.23
2. Providing a welcoming caring, respectful and safe learning environment that respects diversity and fosters a sense of belonging.	2.29	1.12
3. Meeting the standards of education set by the Minister of Education for students.	2.36	1.13
4. Regular review and evaluation of the impact of board policies.	2.43	1.00
5. Predicting, communicating and responding to emergent circumstances, including emergency readiness, crisis management, and to political, social, economic, legal and cultural contexts and trends.	2.46	1.07

Figure 24

Means of Professional Learning Need Related to Seven SLQS Competencies



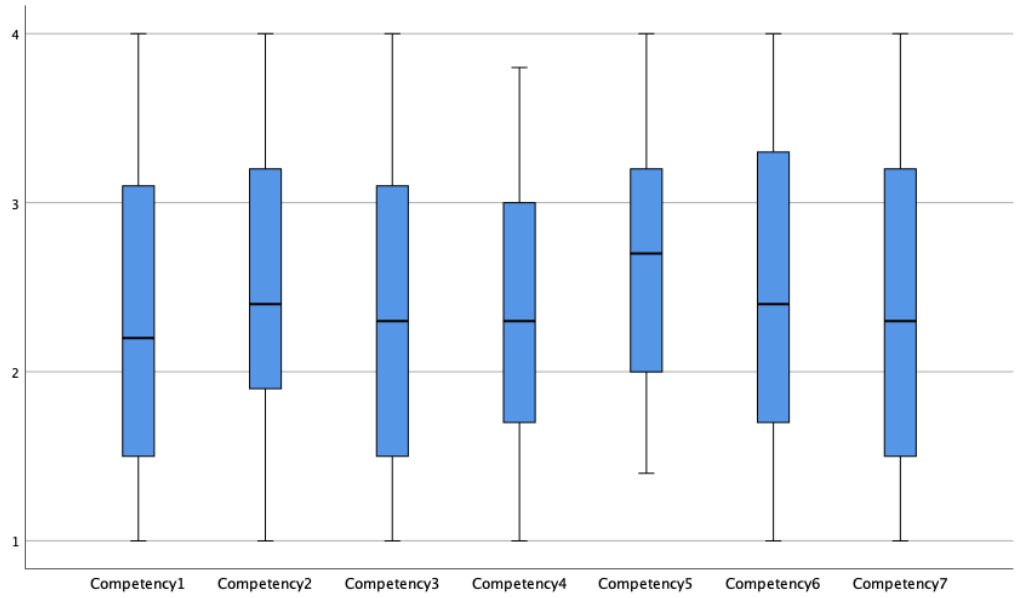
Note. 4-point Likert scale: 1= No need at present; 2= Low level of need; 3= Moderate level of need; 4= High level of need

Box and Whisker Plot

The following box and whisker plot (Figure 25) shows both the distribution and variation within the data set for the four competencies. As can be observed in the box and whisker plot, the interquartile ranges and the whiskers are fairly symmetrical indicating a fairly normal distribution of the data. The results indicate no outliers.

Figure 25

Distribution and Variance in Professional Learning Needs Related to Seven SLQS Competencies



Comparison of Year 1 and Year 2 Results

Table 20 provides a comparison of year one and year two results for professional learning needs of the SLQS competencies. The results represent an increase in the need for additional professional learning to support implementation advancement in SLQS in the three competency areas measured last year. All competency areas were included in the survey this year. In subsequent years, participants will continue to respond to questions regarding their professional learning needs in each competency area.

Table 21

Comparison Between Year One and Year Two Results of Implementation Advancement

Competency	**Year One (*n*=17)**	**Year Two (*n*=36)**
Competency 1: Building Effective Relationships	na	2.34
Competency 2: Modeling Commitment to Professional Learning	2.16	2.52
Competency 3: Visionary Leadership	na	2.39
Competency 4: Leading Learning	2.21	2.34
Competency 5: Ensuring First Nations, Métis, and Inuit Education for All Students	na	2.61
Competency 6: School Authority Operations and Resources	2.41	2.44
Competency 7: Supporting Effective Governance	na	2.40

Superintendent Participation in Professional Learning Opportunities

The research literature shows a strong association between the effects of Superintendent leadership and student achievement (Leithwood, 2008, 2010, 2011; Louis, et al., 2010; Marzano & Waters, 2006, 2009). Brandon, Hanna, and Negropontes (2015) highlight the importance of making professional learning a central priority in high performing school divisions. They further indicate the importance of the superintendency teams in leading learning "based on research derived frameworks in authentically engaging professional leadership learning communities that are informed by evidence of impact on teaching and learning" (Brandon et al., 2015, p. 83).

The results in Table 21 and Figure 26 indicate that superintendents access a variety of professional learning opportunities including reading professional literature (96%), participating in seminars or courses about leadership (89%), and participating in a network of school or school authority leaders. It is encouraging to see such high levels of superintendents' involvement and participation in professional learning, which might help to understand the relatively low levels of further need to access additional professional learning.

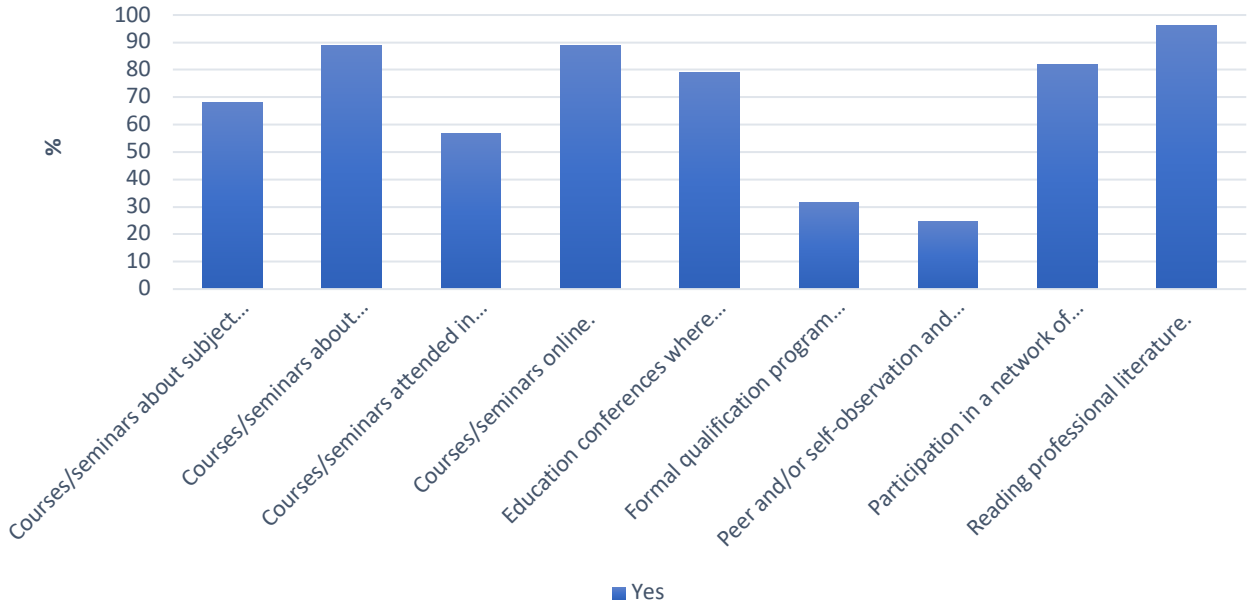
Table 22

Frequencies and Reliability of Various Types of Professional Learning Accessed

	Frequency (%)	
	Yes	**No**
In the last 12 months, did you participate in any of the following professional learning activities aimed at you as the school authority leader? **(α=0.69)**		
Courses/seminars about subject matter, teaching methods, or pedagogical topics.	19 (68%)	9 (32%)
Courses/seminars about leadership.	25 (89%)	3 (11%)
Courses/seminars attended in person.	16 (57%)	12 (43%)
Courses/seminars online.	25 (89%)	3 (11%)
Education conferences where teachers, principals, and/or researchers present their research or discuss educational issues.	22 (79%)	6 (21%)
Formal qualification program (degree program, certificate program).	9 (32%)	19 (68%)
Peer and/or self-observation and coaching as part of a formal school arrangement.	7 (25%)	21 (75%)
Participation in a network of school or school authority leaders formed specifically for the professional learning of school and school authority leaders.	23 (82%)	5 (18%)
Reading professional literature.	27 (96%)	1 (4%)

Figure 26

Types of Professional Learning Accessed



Comparison of Year 1 and Year 2 Results

Table 22 provides a comparison of year one and year two results for form of professional learning accessed to support SLQS implementation. Similar to teachers and leaders, is a shift in forms of learning from Year 1, marking the first year of SLQS implementation, to Year 2 with the onset of the pandemic and public health advisories. Online attendance at seminars has shifted from 63% in 2019 to 89% in 2020; conference attendance has dropped from 94% to 79%; registration in a formal qualification program has dropped from 66% to 32%, and peer and self-observation has gone from 53% to 25%. Presuming that random sampling is accurate, we are witnessing a transformation in the forms and formats chosen for professional leadership learning, or what is called the emergence of a Professional Learning Cloud (Moldoveanu & Narayandas, 2019).

Table 22

Comparison Between Year One and Year Two Results of Forms of Professional Learning Accessed

Form of Professional Learning Accessed	Year One (*n*=17)	Year Two (*n*=36)
Courses/seminars about subject matter, teaching methods, or pedagogical topics.	29 (91%)	19 (68%)
Courses/seminars about leadership.	31 (97%)	25 (89%)
Courses/seminar attended in person.	30 (94%)	16 (57%)

Form of Professional Learning Accessed	Year One (*n*=17)	Year Two (*n*=36)
Courses/seminars online.	20 (63%)	25 (89%)
Education conferences where teachers, principals, and/or researchers present their research or discuss educational issues.	30 (94%)	22 (79%)
Formal qualification program (degree program, certificate program).	21 (66%)	9 (32%)
Peer and/or self-observation and coaching as part of a formal school arrangement.	17 (53%)	7 (25%)
Participation in a network of school or school authority leaders formed specifically for the professional learning of school and school authority leaders.	28 (88%)	23 (82%)
Reading Professional Literature	31 (97%)	27 (96%)

Summary of Superintendent Survey Results

This section of the report summarizes the results of the superintendent leader survey related to implementation advancement, professional learning needs, and participation in various types of professional learning activities.

1. In terms of implementation advancement, Alberta School superintendents report that they continue to further refine their practices related to the competencies. Strong leadership is needed particularly during extraordinary times, such as a global pandemic. The results are clear, superintendents have continued to make some advances in the implementation of SLQS, particularly in the areas of leading learning (Competency 4) and supporting effective governance (Competency 7). All competencies remain at the enacting stage, which suggests that superintendents are still adapting their practice to the new standard.
2. Superintendents' expressions about professional learning needs mirror those for teachers and school and system level leaders. The results suggest that superintendents, like teachers and school leaders, are accessing various forms of professional learning.
3. Means scores indicate that Alberta Superintendents recognize they are not sufficiently engaging FNMI parents, elders and community leaders in local policy and planning, and that they need further professional development in this regard.

Conclusions From 2020-21 Surveys

Conclusions From the 2019-20 Provincial Survey

Online surveys undertaken in 22 Alberta school jurisdictions, and 29 independent schools in the fall of 2020, provide a reasonably accurate and reliable picture of teacher, leader, and superintendent perceptions of implementation processes for Alberta's three professional practice standards at the onset of the implementation process. These results are provided to support ongoing educator efforts to assess, deepen, and extend implementation of the TQS, the LQS, and the SLQS such that the application of professional judgement, reading of context, and application of teaching and leadership competencies are more likely to lead to optimum learning for *all* students.

These survey results provide a broad-brush picture of year two of the implementation of the professional standards across Alberta. We may importantly note that in the midst of a global pandemic, implementation efforts of all three standards continue. Many competencies are at the enactment stage– where teachers, school leaders, and superintendents are still adapting in their practice to novel problems– they reported much flexibility. The public health situation in 2020 and 2021 have required such flexibility and continuing adaptivity. The standards and their implementation do not appear to be rigidifying practice since interquartile ranges and standard deviations remain professionally healthy for fostering discussion and multiple perspectives.

At the same time, leaders must engage the wider community in schools. Survey results indicate that those competencies in leading those within the system are stronger than for leading those beyond the system. While small gains have been made in year 2 of the study, leaders must continue to engage with the public to continue constructing public confidence. Continuing to engage in professional learning about successfully interacting with neo-immigrant parents, Indigenous leaders, and other community stakeholders is warranted.

At the same time, there are important indications that the forms and formats of professional learning and leadership development have shifted markedly over the past year, and will continue to shift after the pandemic. More technological delivery of customized courses, more collegial approaches in virtual learning space, and greater demand for both credentialed and non-credentialed learning will be necessary. What that means for changing educator behaviour and enacting standards to support "optimal" learning remains unclear.

Because school leader and superintendent professional learning needs are nearly identical, similar packages and approaches may be suitable. Similarly, teachers report consistently that they are in the mid-level stages of implementation. Professional learning in relation to implementation characteristics rather than customization for specific competency development may be possible, except for Competency 5. Here additional attention will be needed to support teachers teaching mathematics and sciences.

This confidential 2020-2021 Survey Report of the provincial results prepared for Alberta Education summarizes results from one thousand one hundred and sixty (1160) teachers, four hundred and forty-four (444) leaders, and thirty-six (36) superintendents who participated in the survey portion of this study in the fall of 2020. These results are meant to be used to: first, to help guide school

divisions' planning to deepen and extend implementation; to guide further the inquiry by research team members during year-three of the study; to inform forthcoming decisions at Alberta universities and within the Ministry of Education; and to provide local planners with a provincial comparator when appraising their own results.

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Appendix A: 2020-21 Provincial Survey: Participating School Authorities

Mixed Methods Case Studies	**Type**
1. Almadina School Society	Charter
2. Calgary Catholic School District	Metro
3. Edmonton Public School Board	Metro
4. Golden Hills School Division	Rural
5. Grande Prairie Public School District	Urban
6. Greater St. Albert Catholic School Division	Rurban
7. Northland School Division	Rural
8. Palliser School Division	Rural
9. Red Deer Catholic Regional Schools	Urban
10. Rundle College Society	Independent
Additional Participating Divisions	Type
11. Battle River School Division	Rural
12. Black Gold School Division	Rural
13. Foothills School Division	Rural
14. Fort McMurray School Division	Rural
15. Horizon School Division	Rural
16. Livingstone Range School Division	Rural
17. Northern Gateway School Division	Rural
18. Parkland School Division	Rural
19. Pembina Hills School Division	Rural
20. Fort McMurray Roman Catholic Separate School Division	Ruban
21. Grande Prairie Roman Catholic Separate School Division	Ruburn
22. St. Thomas Aquinas Roman Catholic Separate School Division	Rural
Association of Independent Schools and Colleges of Alberta (AISCA)	29 School Authorities

Appendix B: 2020-21 Provincial Survey: Participating School Authorities Within the AISCA Organization

Participating School Authorities Within the AISCA Organization
1. ABC Head Start Society
2. Airdrie Christian Academy
3. AISCA
4. Alberta Conference of SDA
5. Asasa Academy
6. Aspen Hill Montessori
7. Bearspaw Christian School
8. Calgary Academy Society
9. Calvin Christian School
10. Centre for Autism Services Alberta
11. Cochrane Valley Montessori School
12. College Heights Christian School
13. Edmonton Menorah Academy
14. Foothills Alliance School
15. Glenmore Christian Academy
16. Janus Academy Society
17. Koinonia Christian School
18. Living Truth Christian School Society
19. Living Waters Christian Academy
20. Londonderry Child Development Society
21. Lycee Louis Pasteur
22. Menorah Academy
23. MAC Islamic School
24. MMEC Private Montessori School
25. Phoenix Home School Foundation
26. Prairie Adventist Christian eSchool
27. Progressive Academy Education Society
28. Rundle College Society
29. Universal Educational Institute