Validation of the Myanmar Teacher Competency Standards Framework (TCSF)

Final Report

Strengthening Pre-service Teacher Education in Myanmar (STEM)

Prepared for:

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1   Background: Teacher Competency Standards

Teacher competency standards originated in the United States (Davis, 1962), where the primary objective of teacher competency standards was first to "upgrade the status of teaching to a profession" (Cochran-Smith & Zeichner, 2009, p.74). Over the past seven decades, teaching standards have continued to evolve. National teacher competency standards have now been implemented in many countries around the world, including Australia, New Zealand, The Netherlands, The United Kingdom, and the United States (Call, 2018; Chung & Kim, 2010; Koster and Dengerink, 2008). Teacher competency standards have long been considered a way to improve learning and quality assurance in teaching (Tang, Cheng & So, 2006). However, as Darling Hammond (1998) and Hargreaves (2000) have noted, teaching standards are not the only way to solve educational issues, a sentiment echoed by Hudson (2009) and Tuinamuana (2011). The justification for teacher standards, as many researchers have highlighted, lies in the notion that improved teaching will create greater conditions for student achievement (Danielson & McGreal, 2000; Darling-Hammond, 2001).

Professional standards for teachers are now widely used as policy mechanisms that both assess and enhance teacher quality. Professional teacher standards "seek to clarify the dimensions of effective teaching practice, detailing the competencies of accomplished teachers, and applying rubrics specifically designed to measure teacher quality" (Koster & Dengerink, 2008; Kleinhenz & Ingvarson, 2007; Mayer et al. 2005; Santoro, 2012; as cited in Clinton, Dinham, Savage, Aston, Dabrowski, Gullickson & Arbour, 2015, p.9). Teacher competency standards can be used prescriptively or in aspirational ways, that build capacity to augment teacher quality (Sachs, 2003). In countries in the Asia Pacific region, particularly Australia and New Zealand, teacher competency standards are intended to be used in aspirational rather than punitive ways, moving beyond teacher evaluation to support engagement and connection with students, and draw on key principles of high quality teaching practice (AITSL, 2011; Education Council of New Zealand, 2017). Here, teacher competency standards offer a tool for teacher self-reflection, professional development, and peer dialogue, supporting a process of self-assessment, transparency of practice, and professional accountability (Doecke, 2011). Importantly, teacher competency standards are often perceived as having the potential to raise the status of the teaching profession, assisting in the attraction, development and retention of high quality teachers, as well as providing a framework that recognises and rewards professional growth (AITSL, 2011; Dinham et al., 2008).

In the Asia pacific region, Myanmar has also moved to improve the quality of education in a number of areas, including through revisions to existing teacher education programs, curricula frameworks, gender and inclusion mechanisms, and teacher competency standards. In this context, the first draft of the Myanmar draft Teacher Competency Standards Framework (TCSF) was developed by a team of Myanmar experts, namely the TCSF working group, in 2015-2016, drawing from extensive international literature and experience. It was subsequently field tested to examine whether it was fit for purpose and useful for Myanmar's education system. Here, like other teacher standards around the world, the TCSF aims to offer a framework for Myanmar's teaching profession and individual teachers to reflect upon and ultimately enhance teaching practices, build knowledge, and ultimately, improve teacher education and professional learning (Kleinhenz & Ingvarson, 2007; Sergiovanni & Starrat, 2002). The TCSF therefore aim to provide a framework for beginning teachers in Myanmar, and is a significant component of the broader reforms in Myanmar that aim to improve the quality of teachers and teaching across the entire system of education.

1.1   The TSCF

In 2018, a review of international literature on the validation of teacher competency standards was undertaken (My-EQIP, 2018), and late in 2018 the design of a validation study for the TCSF for beginning teachers was developed (STEM & My-EQIP, 2018b). As a result of expert input and review, revisions were made to the TCSF, and a new version of the TCSF was produced (STEM & My-EQIP, 2018a). Together, the standards framework offers opportunities for teachers to understand teaching and learning effectiveness and apply this to their own practice. Made up of 4 key domains, the TCSF offer an aspirational framework for teachers to build their own capacity and professional learning in the areas of professional knowledge and understanding, skills and practice, values and dispositions, and professional learning and development. Version 3.2 of the TCSF are explained in more detail below (and outlined in full Appendix 6).

1.1.1 Domain A

This domain centres on the information that teachers should know and be able to demonstrate. It encompasses the knowledge required for teaching different ages and stages and level-appropriated subject content competency. Inherent in any focus on subject competency is the necessity to understand how students learn and how they can be effectively taught in the key learning areas. Underpinning all competency standards in this domain is knowledge of educational policy and school curricula for Myanmar, its aims and objectives and developments.

1.1.2 Domain B

This domain deals with what teachers are able to do. The teachers' professional knowledge and understanding is complemented by possession of a repertoire of teaching strategies for different educational contexts to meet the needs of individual students as appropriate to different subject areas and stages of schooling

1.1.3 Domain C

This domain refers to the ideas, values and beliefs that teachers hold about education, teaching and learning. It is underpinned by the values expressed in the Myanmar National Education Law and reflects the mutual understanding by teachers and the community about the Myanmar teacher – Teach students to be disciplined, Teach and explain to your best, Teach everything known, Appreciate students and Stand up for students whenever needed, Teach to value the professional work of being a teacher. According to Myanmar tradition, in return, the community will respect teachers

1.1.4 Domain D

This domain deals with teachers' continuing professional growth and development. It incorporates teachers' habits, motivation and actions related to their on-going learning and professional improvement. It advocates the importance of all teachers being aware of their role as leaders within the community and highlights the need for active research to support teachers' classroom performance and continuing professional development.

2 Validating the TCSF

The draft TCSF for Beginning Teachers is already based on international best practice in teacher competency standards. The TCSF has been reviewed and refined several times, including after undergoing field testing in 2016. This means that there is already a high level of confidence in the validity of the TCSF as a description of effective teaching. However, although the TCSF is informed by Myanmar cultural expectations of teaching, there is less evidence available about how well the TCSF describes effective teaching practice as it is occurring in Myanmar schools. The validation study therefore aims to answer the following focus question: *Does the TCSF describe effective teaching in Myanmar?*

As the TCSF moves from development to implementation, it is essential to understand if the TCSF describes practice that is clearly achievable in Myanmar schools, and consistent with Myanmar teachers' ideas of quality teaching, then it is likely to be implemented successfully. Achievability and relevance are both essential for teaching standards to have widespread, sustained impact on improving teaching practice. The validation study provides an opportunity to involve a wide variety of stakeholders, so as to maximise engagement and contribution to the development of the TCSF. This will improve uptake and engagement. The validation study will therefore remain relevant throughout TCSF implementation. It is expected that the validation of the TCSF can therefore be used to demonstrate:

- *ownership of the TCSF by the teaching profession, because they were involved in its development*

- *a rigorous evidence base for reform, adapting international best practice to the Myanmar context*

- *exploration of practical possibilities for implementation, such as self-appraisal and teaching portfolios; and*

- *evidence of the complexity involved in connecting the TCSF to teachers' everyday practice, which may help to manage expectations about the speed with which TCSF-related reforms can be achieved.*

By demonstrating that the TCSF describes effective teaching in Myanmar, the validation study aims to foster confidence in the TCSF among teachers, school leaders, government agencies, and other stakeholders.

2.1 Validity Considerations

It is important to acknowledge that "validity"" may be defined in many different ways. Utilising Messick's (1989) six components of *construct validity,* we are offered a useful framework for validating teacher competency standards, as outlined below:

• **Consequential validity** concerns the benefits of using teaching standards, relative to the risks. It is often demonstrated with stakeholder surveys or consultations, or documentation of impact.

• **Content validity** and **substantive validity** concern whether teaching standards describe quality teaching practice, as it is demonstrated in the classroom, and articulated in theory and research. Content validity is often demonstrated by review of standards by subject-matter experts (SMEs).

• **Structural validity** concerns whether the components of the standards show patterns in empirical data that are consistent with expected patterns, based on theories of effective teaching practice. It is often demonstrated using psychometric methods, including item response theory (IRT).

• **External validity** concerns whether teaching standards have a relationship to other measures that may demonstrate teacher effectiveness. Several studies explored the relationship between teaching practice and student learning outcomes, showing that the relationship varies widely.

• **Generalisability** concerns whether standards are equally applicable to different types of teachers, regardless of their characteristics and contexts. Most studies address this through representative sampling, while others pursue deeper analysis of the applicability of teaching standards across contexts.

In the context of this study, the TCSF will be seen as valid when stakeholders involved in the validation study perceive the TCSF to be accurate, relevant, likely to be implemented successfully, and likely to support broader education reform. This report seeks to provide an overview of the findings of the validation of the TCSF as the framework moves towards implementation.

2.2 Validation Study Design, Stages and Methods

The TCSF validation study draws upon a number of key principles that have been developed from the evidence base on teacher standards validation, as well as the work of Jackson and Nietschke (2018), who developed key recommendations for validation studies of teaching standards. Drawing upon the principles above, the design of the study includes three key phases as outlined below. This three-phase design combines qualitative and quantitative methods in order to provide comprehensive information about the validity of the TCSF. It also provides opportunities to triangulate (verify) the findings, by comparing data from each phase, as outlined in Appendix 7. An overview of the phases is detailed below:

Table 1: Overview of the TCSF validation study

Phase 1: An **expert review** of the draft TCSF (Beginning Teachers), including a paper-based review of each TCSF element's clarity, achievability, and assessability, and focus group discussion in a workshop format.	**PHASE 1: EXPERT REVIEW** Does the TCSF reflect effective teaching practice in Myanmar?
Phase 2: A **teacher survey** using the draft TCSF, seeking their views on the relevance of each standard and element, and their views on their own current practice. This survey would help to gauge which standards and elements teachers feel they do well, and where they may need professional development.	**PHASE 2: TEACHER SURVEY** Can Myanmar teachers connect the TCSF to their practice?
Phase 3: **Case studies** of teaching practice, in a purposive sample of effective teachers.	**PHASE 3: CASE STUDIES** Does effective teaching practice in Myanmar reflect the TCSF?

2.2.1   Expert review

The first phase of the validation study involved an expert review of the draft TCSF for Beginning Teachers. The selection of experts aimed to capture a broad range of expertise about current teaching practice in Myanmar, and in selected international contexts. The group of experts therefore included those with highly advanced knowledge, or specialist insight into a specific area. Fifty one experts participated in the first phase of the study (for more detail, please see *Appendix 2: Expert survey participants)*. 15 were experts in teacher education, 19 were experts in teaching practice, 14 were experts in teaching policy, and there were three international experts. The group of experts was drawn from the following groups:

- **Experts with insight into current practice in Myanmar teacher education**, including in Universities of Education (UOE), Education Colleges (EC), monastic institutions, and the University for the Development of National Races (UDNR). The Myanmar Academy of Arts and Sciences (MAAS) was also represented in this group. Experts in this group were selected based on their theoretical and practical understanding of effective teaching.

- **Experts with insight into current practice in Myanmar schools**, including public, private, monastic and ethnic schools, at primary, middle, and high school level. This included selected head teachers, District or Township Education Officers, or teaching union representatives from different school sectors. Teacher mentors were also included. Experts in this group were selected based on having a broad and deep understanding of current teaching practice.

- **Experts with insight into the education policy context**, potentially including representatives from NEPC, NAQAC, NCC, DHE, DBE, DAE, DERPT, and Monitoring and Evaluation. Experts representing government were selected based on their knowledge of effective teaching, and their understanding of the role of professional standards in driving education system improvement.

- **Experts with insight into international standards for effective teaching,** especially in the ASEAN region. This group was selected based on their understanding of regional or international practice.

This phase included paper-based review of each TCSF element's clarity, achievability, and assessability, and focus group discussion in a workshop format. The survey sought the experts' views on each of the minimum requirements in the TCSF. The indicators for each minimum requirement for kindergarten, primary, middle, and high school levels were set out as reference for determining, for each minimum requirement, whether it was considered likely (or respondents were uncertain or considered it was unlikely) to be understandable, achievable and assessable (for all teachers in Myanmar). For a number of the minimum requirements there were additional items with indicators involving the use of information and communication technologies (ICTs) (minimum requirements A.5.2, B.1.2, B.2.1, B.4.1, C.1.4, and D.2.1). The experts were also invited to make any suggestions about how each minimum requirement could be improved.

2.2.2   Teacher survey

This component of the study investigates whether a representative sample of Myanmar teachers and student teachers see the TCSF as relevant to their teaching practice, and aligned with their current level of practice. The survey aims to evaluate the relevance and achievability of the TCSF by exploring the perceptions of teachers and student teachers. This survey did not aim to understand teaching capability, but rather to understand teacher and student teachers' views on the draft TCSF and its applicability to teaching in Myanmar now and in the future so as to strengthen the effectiveness of the Myanmar teaching workforce.

A total of 4952 teachers and student teachers were represented in the survey phase of the validation study. A purposive sampling methodology was employed, with survey respondents spread across four key teacher levels (kinder, primary, lower and upper secondary) and student teacher level. Different school types[1] were also involved, including public, religious (monastic), ethnic (non-government), private, and education college/university. Survey data was collected across regions[2] and states of Myanmar, providing a sample that presents a range of geographical

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[1] *School labels were categorised during SPSS analysis. For reference, religious schools are Monastic Education, ethnic pertains to non-government schools, and Education College also includes universities. Please consider when reading this report.*

[2] The above regions/states were collapsed for the survey analysis run in SPSS into the geographic categories of *East, West, South, North (including Upper), Central,* and *Lower.*

locations across Myanmar. A full overview of the participants represented in the study is provided in *Appendix 3: Survey Participants*, while an overview of survey representation is detailed in the table below:

Table 2: Study Sample

Region/States	Number of Responses
Kachin	163
Kayah	78
Kayin	249
Chin	87
Sagaing	543
Tanintharyi	168
Bago (East)	355
Bago (West)	206
Magway	314
Mandalay	546
Mon	250
Rakhine	294
Yangon	396
Shan (South)	296
Shan (North)	150
Shan (East)	147
Ayeyarwady	551
Nay Pyi Taw	159
Total	**4952**

The tool utilised in the survey phase explored teachers' and student teachers' perceptions of the importance of each element of the TCSF, and their perception of their current capability. The capability question involved three levels: an area of improvement; something the teacher/student teacher can do adequately; or a strength. This is similar to the self-assessment rubric used in the prototype materials for the School Quality Assurance Standards Framework (SQASF), and aims to foster an improvement-oriented approach to self-appraisal. Teachers and student teachers were asked whether each minimum requirement was understandable and important, describe their current capability regarding the requirement, and indicate whether they believed that the minimum requirement is important for pre-service teacher education and for future teachers. The instrument also includes a short set of evaluative questions, including participant opinions on the use of ICT, in order to determine whether completing the survey was a valuable learning experience for the teacher or student teacher. A final open-ended question invited comments on the TCSF (limited to a single question, for manageable data entry and analysis). Finally, the survey also included contextual

questions about the teacher and their context, including their qualification[3]; teacher type; school type[4]; class size; gender; home language; ICT use, and years of experience, in order to explore differences by demographic.. This survey sought to gauge which standards and elements teachers and student teachers feel they do well, and conversely, where teachers feel they may need further professional development.

2.2.3 Case studies

The final phase focused on case studies of effective teaching practice in a purposive sample of effective teachers and teacher education students. This included compiling portfolios of evidence about teaching knowledge and practice using multiple methods: observations, interviews, and documentation. Analysis of the data focused on whether each standard and element could be demonstrated in practice; and whether the effective teaching practices demonstrated in each case study site could be mapped against the TCSF. This phase focused on responding to four key research questions:

1) *Which standards, minimum requirements and indicators were easiest and hardest to demonstrate?*
2) *How is effective teaching demonstrated by the selected teachers in Myanmar?*
3) *How does the evidence of effective teaching differ in different contexts?*
4) *How did participants and researchers engage with the study as a professional learning exercise?*

A purposive sampling approach was undertaken for the case study phase of the validation study. Schools were selected from across the regions/states of Myanmar to ensure geographic and demographic coverage. The sample for the case studies is ten schools in total. Across all states/regions, five were selected that represented a diverse combination of demographic indicators (density, urbanization, ethnicity, health, socio-economic, etc.). These were selected using the Multiple Disadvantage Index (MDI-1) looking at regional variation in prevalence rates of different disadvantages (see below table) for the 14 indicators identified for the Multiple Disadvantage Index. The State/Regions were selected calculating the sum of prevalence rates for education indicators (MDI-1), representing 2 state/regions of high education disadvantage, 1 state/regions of average education disadvantage and 2 state/regions of low education disadvantage. The final school selection was informed by indicators in the DBE database and with the advice of Township Education Officers for the respective selected townships. This ensured a solid informed selection of schools, including recommended distribution across type and level, and considerate of the following criteria:

- Rural/urban schools

- S/L size schools

- H/L Social Economic Status (SES) schools

- H/L performing schools (indicator TBD- consider Pass Rate in DBE)

Two schools in each township were selected. However, for each school, 3 schools were nominated. The purpose was to be able to compare schools within the same school category, and to identify replacement schools for each school, should the nominated school not be able to participate. This amounted to a total of 30 schools identified. Once the schools were identified, it was assessed if any of the selected schools were likely to be unsuitable because of difficulties in access or for other reasons. Criteria for exclusion includes school size (indicating fewer than three teachers at either primary, middle, or high school level), very remote schools (school distance from the township education office), and particular local factors (such as schools affected by natural disasters or conflict). The focus of the case studies was to provide an exploration of teaching effectiveness as demonstrated by in-service practitioners. In order to complete this exploration, two teachers were selected as study participants (attached in Appendix 3: Case Study Participants). Each participant was assigned a team of two researchers, who were responsible for working with them to compile evidence of their effective teaching practice. Case study sites included schools in urban and rural areas, both advantaged and disadvantaged in terms of socioeconomic status.

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[3] *Qualifications were organised into three categories of diploma or lower (including high school); bachelor level, and postgraduate (masters or above). The categories are in line with international standards for education qualifications.*

[4] *During SPSS analysis, school system variables were organised as public, religious, ethnic, private, and Education College. School labels were categorised during SPSS analysis. For reference, religious schools are Monastic Education, ethnic pertains to non-government schools, and Education College also includes universities. Please consider when reading this report.*

2.2.4   Sample considerations

It is worth noting several particular considerations when reading the results presented in the following section of this report. These considerations pertain to the results presented from the survey and case study phases of the TCSF validation study.

Generalisability of survey sample

Descriptive statistics are a form of statistical analysis that aids interpretation by describing, summarizing, and showing data in a meaningful way. Application of descriptive statistics also supports recognition of patterns that comes from the data collected. However, it must be acknowledged that there are limitations to the conclusions that can be drawn from the data presented in this report. While descriptive statistics provide an ability to describe what is shown, we cannot draw any specific conclusions based on a hypothesis. As hypothesis testing was not undertaken in this study, as there is no intervention and no control group, descriptive statistics are the most appropriate methodological application that provide an understanding of what is occurring in Myanmar.

From a methodological perspective, it is also important to acknowledge that there appears to be a certain level of positive bias in the survey data, which is important to consider in the reading of this report. In relation to the questionnaires administered, survey respondents reported understanding and awareness of the 4 Domains and their corresponding indicators and minimum requirements consistently "quite well". There was also little variation in these levels on the basis of demographics, such as gender, location, or teacher type. Reporting in this way may be cultural, particularly in terms of the reluctance of respondents to accurately report their levels of understanding and awareness of the TCSF. However, when considered against comparable research undertaken into validation and implementation of teaching standards in Asia Pacific, the USA, and the UK (Chróinín, Tormey & O'Sullivan, 2012; Clinton et al, 2015; Darling-Hammond, 2017), the findings are worthy of pause. Related research has observed that levels of knowledge, understanding, awareness, and engagement in teacher evaluation and teacher standards are highly varied. The findings presented here therefore should be considered carefully. The data set however provides an opportunity for further exploration and understanding into the TCSF in Myanmar, and an area of focus that will be explored in Phase 3: Case Studies.

Case Study Data

It should also be emphasized that the case study insights offered in this report do not offer a representative sample of teaching practice across Myanmar, but instead are designed to provide insights into effective teaching practice in order to support the development of the TCSF moving forward. Data collected during the Case Study phase of the validation study was designed so as to allow for a more detailed exploration of the TCSF in practice. The data gathered during the final phase of the validation study, whilst not statistically representative of the Myanmar teaching population, can therefore support the MoE to make inferences on the ways in which the TCSF are reflected in effective teaching practice in Myanmar, and provide avenues for future examination as the TCSF is implemented.

2.1   Validation and implementation considerations

The implementation of standards based education policy can be thought of as occurring through various stages. As the table below outlines, the first phase involves engaging and raising awareness amongst key stakeholders and implementers. Then, an interpretation of the policy as it pertains to practice must be considered, before teacher competency standards can become embedded in practice.

In the context of the TCSF, the three phases of research have occurred over an 18-month period, from November 2018 to May 2020. This approach allows for timing to support adoption of the TCSF as part of the new four-year teacher education programs, from 2020. This integrated three-phase design is shown in Figure 1 below. The validation study provides an important opportunity to improve the draft TCSF, and to raise public awareness and confidence in relation to the TCSF reforms. This will ultimately help to achieve the core purpose of the TCSF itself, to guide improvement to teaching practice. This final report presents key findings from each phase of the study, and considers implications for the validity of the TCSF.
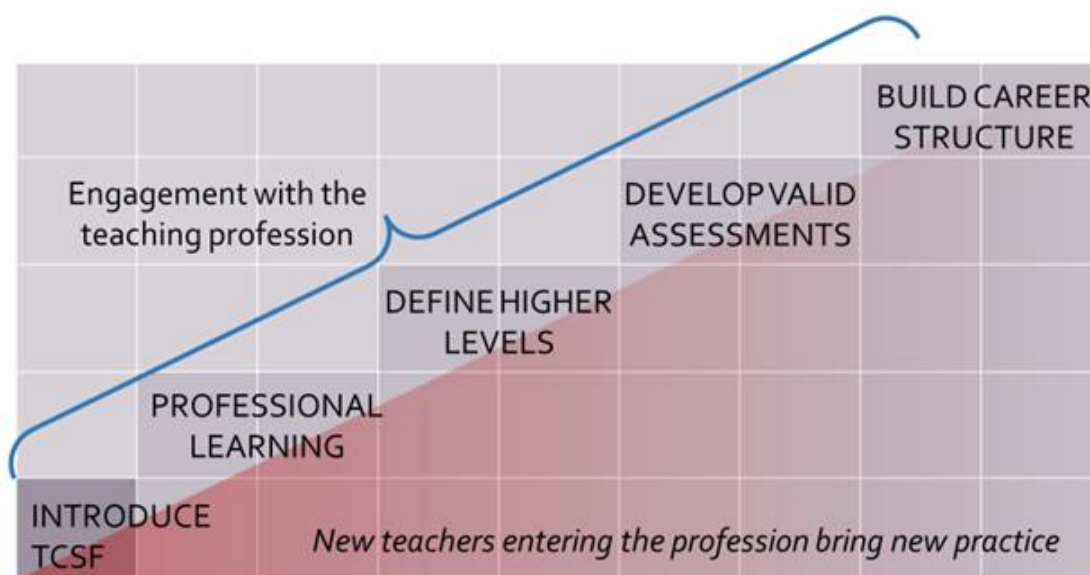
Figure 1: Suggested steps in implementation of higher levels of the TCSF, following validation

This incremental process illustrates why this study is focusing on the TCSF for Beginning Teachers only, rather than the standards for four levels of teaching that have also been developed (Beginning, Experienced, Expert, and Lead). Until the foundational standards have been validated, and implementation has commenced, it is premature to describe how the TCSF might be demonstrated at higher levels of teaching practice[5]. As the TCSF is implemented, the evidence base about effective teaching in Myanmar will continue to grow. Development of the higher levels in the TCSF can then be informed by knowledge about actual practice. These must also be informed by ongoing dialogue between government agencies and the teaching profession. If desired, it is therefore possible to conduct additional validation studies after this date, as higher levels of the TCSF are developed, and as evidence is collected from assessments using the TCSF. Repeated validations would inform continuous improvement to the TCSF, as part of ongoing monitoring and evaluation of its relevance and impact.

3   Findings

By drawing together the findings from the three activities, we are able to provide a number of evidence-based conclusions about the TCSF's validity, confirming that the TCSF is now ready for implementation. This section presents the findings of the validation study based on the three phases of research within the broader validation study.

3.1   Phase I – Expert review

The first phase of the validation study involved an expert review of the draft TCSF for Beginning Teachers. The expert survey aimed to evaluate the relevance and achievability of the TCSF by exploring the perceptions/views of education stakeholders. This survey did not aim to understand teaching capability, but rather, to ascertain expert views on the draft TCSF and its applicability to teaching in Myanmar now and in the future. The findings of phase I are presented below:

Key Findings

- Overall, participants involved in the TCSF expert survey indicated that overall the TCSF was understandable, achievable, and assessable;
- The most positive overall response was about understandability, with the majority of experts considering minimum requirements likely to be understandable;
- The least positive overall response concerned achievability;

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[5] *Based on advice from Dr Lawrence Ingvarson, Australian Council for Educational Research, November 2018.*

- Experts in teacher education were broadly positive that all items are understandable, achievable and assessable;
- Experts in teaching practice were least positive, especially about achievability and assessability;
- Experts in teacher policy were very positive about understandability, but less positive about achievability;
- There were some particular difficulties in the interpretation of the TCSF. These arose, first, from problems with the wording of the minimum requirements or indicators
- There was concern that the requirements could not be met in the immediate circumstances of teachers in Myanmar because of the resource context of schools (such as ICT facilities and class sizes) and their current knowledge and skills (especially, but not only, related to ICT).

While there were these overall differences between the groups, there was also great variation within groups. There were also substantial differences between responses to different minimum requirements. Items that experts generally rated lower in understandability, achievability and assessability were in several categories: first, the items with information and communication technology (ICT) content, and, second, the inter-related categories of minimum requirements concerned with recognising and responding to students' individual needs and their diverse social and cultural backgrounds, the importance of inquiry and research-based teaching and learning, and teachers having and recognising own educational philosophy. These valuable expert considerations helped to shape the subsequent activities of the validation study, resulting in amendments to the first version of the TCSF, which were subsequently used in Phases II and III. The findings of the final two stages of the validation study are presented in more detail in the following sections.

3.2   Phase II – Teacher survey

The second phase of the validation study investigates whether a representative sample of Myanmar teachers and student teachers see the TCSF as relevant to their teaching practice, and aligned with their current level of practice. The survey aimed to evaluate the relevance and achievability of the TCSF by exploring the perceptions of teachers and student teachers. This survey did not aim to understand teaching capability, but rather, to ascertain teachers and student teachers' views on the draft TCSF and its applicability to teaching in Myanmar now and in the future.

Key Findings

Overall, teachers and student teachers in Myanmar were largely positive about their ability to understand and use the TCSF minimum requirements in their practice. Overall, perceptions of capability are somewhat lower than perceptions of the value of the TCSF, suggesting that teachers and student teachers need support during future implementation to augment their teaching practice. This also offers opportunity to explore evidence of practice and alignment to the TCSF. The key findings of Phase II are outlined below:

- Across the 4 domains, across all demographic categories, teachers and student teachers reported they can either perform adequately or above;
- Across the 4 domains, across all demographic categories, teachers and student teachers reported they understand their requirements quite well;
- There was no significant distance in perceptions of the domains by teacher type;
- Teachers and student teachers were slightly more confident in demonstrating an understanding of how different teaching methods can meet students' individual learning needs, though this was not statistically significant;
- Gender does not seem to play a large role in differentiating between groups. Male and Female teachers and student teachers tended to show the same answers in any given domain and indicator;
- Across domains, teachers and student teachers believe that the minimum requirement for pre-service teacher education curriculum and for future teachers is well determined and is helpful in promoting a meaningful educational context;
- In relation to qualification, there was no significant difference between perceived ability to teach or act in a teaching capacity;

- Higher education levels resulted in slightly greater emphasis on the importance of pre-service education, however higher education levels do not result in higher perceptions of competency across the 4 domains;
- Religious (monastic) schools fare slightly not as well as public schools in perceived capability across the 4 domains; though this was not statistically significant, and
- Teachers and student teachers in north, lower, and central regions of Myanmar have slightly lower perceptions of their teaching capability when compared to other regions of the country.
- Survey respondents including both teachers and student teachers engaged in ICT occasionally but there were no significant findings generated from the extra items regarding perspectives on ICT;
- Survey respondents including both teachers and student teachers appeared to be highly engaged with the TSCF, which creates a positive environment and a common framework within which to discuss goals, opportunities, and shared responsibility for the outcomes of Myanmar's students.

An overview of the overall survey results across Domains and indicators is provided in the figures below, while a detailed overview of the findings across demographics are presented in *Appendix 5: Survey Results.*

Key Findings: Overall Domain A

Figure 2: Domain A Findings

The figure above shows that across the categories, survey respondents (including teachers and student teachers) report they understand and perceive the TCSF Domain A to be important to a good level (M[6]= 75 and M= 82 respectively). Perceptions of capability were lower (M=37). However, participants reported positive perceptions of the minimum requirements to a very high level (M= 87).

Key Findings: Overall Domain B

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[6] *M= mean (average score across survey respondents)*

Figure 3: Domain B Findings

The figure above shows that across the categories, Domain B participants (including teachers and student teachers) report they understand and perceive importance of the TCSF quite well (M= 81 and M= 83 respectively). Perceptions of capability were again lower (M=45). In particular, participants reported positive perceptions of the minimum requirements to a high level (M= 87).

Key Findings: Overall Domain C
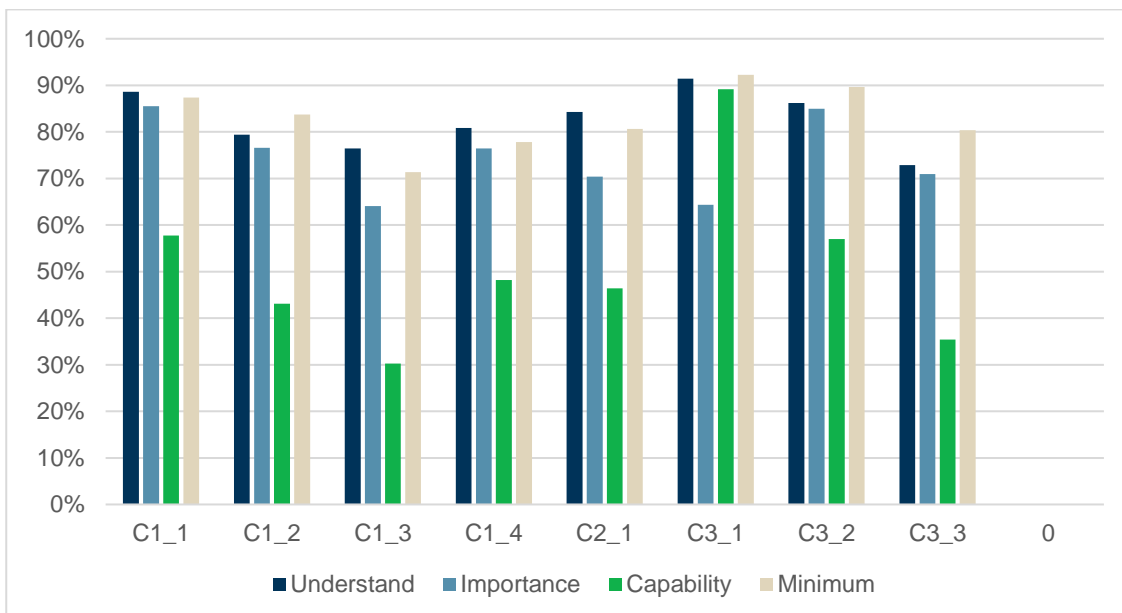
Figure 4: Domain C Findings

The figure above shows that across the categories, survey participants (including teachers and student teachers) report they understand and perceive importance of the TCSF Domain C quite well (M=83 and M= 74 respectively). Perceptions of capability were again lower (M=51). In particular, participants reported positive perceptions of the minimum requirements to a high level (M=83).
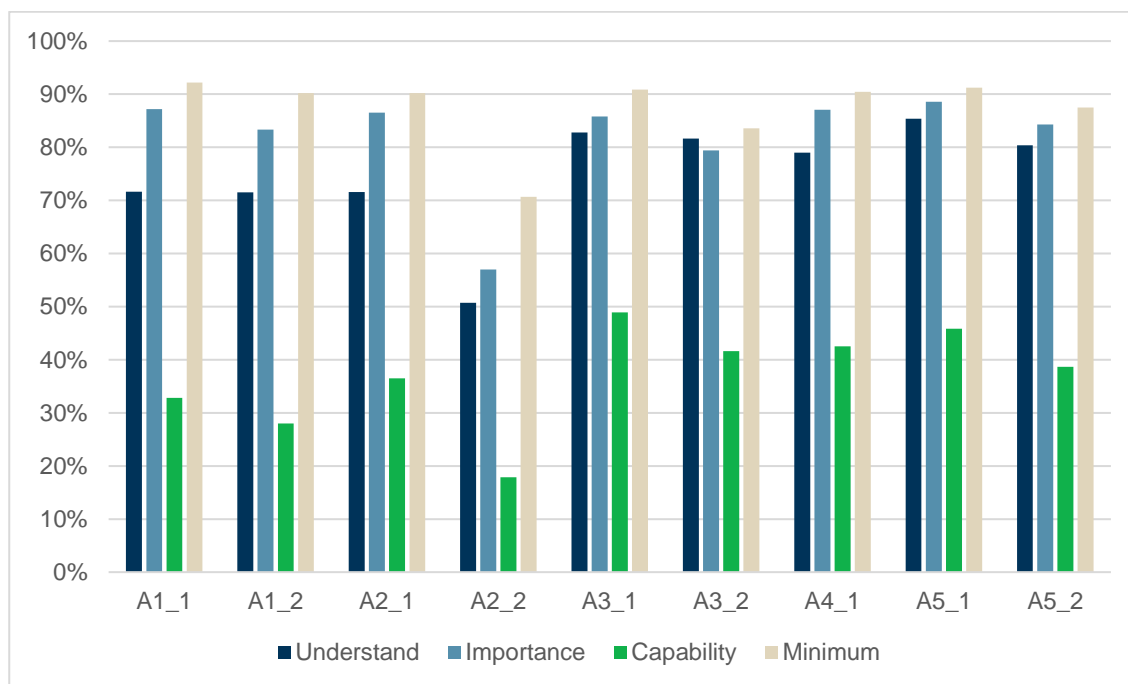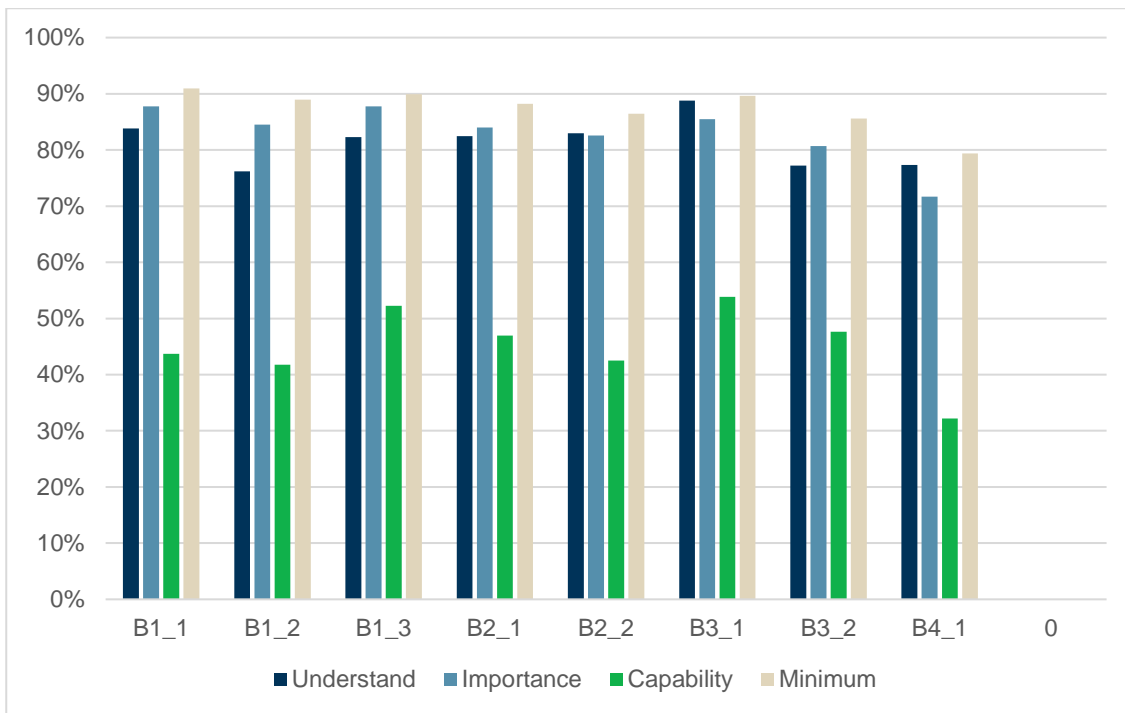
Key Findings: Overall Domain D
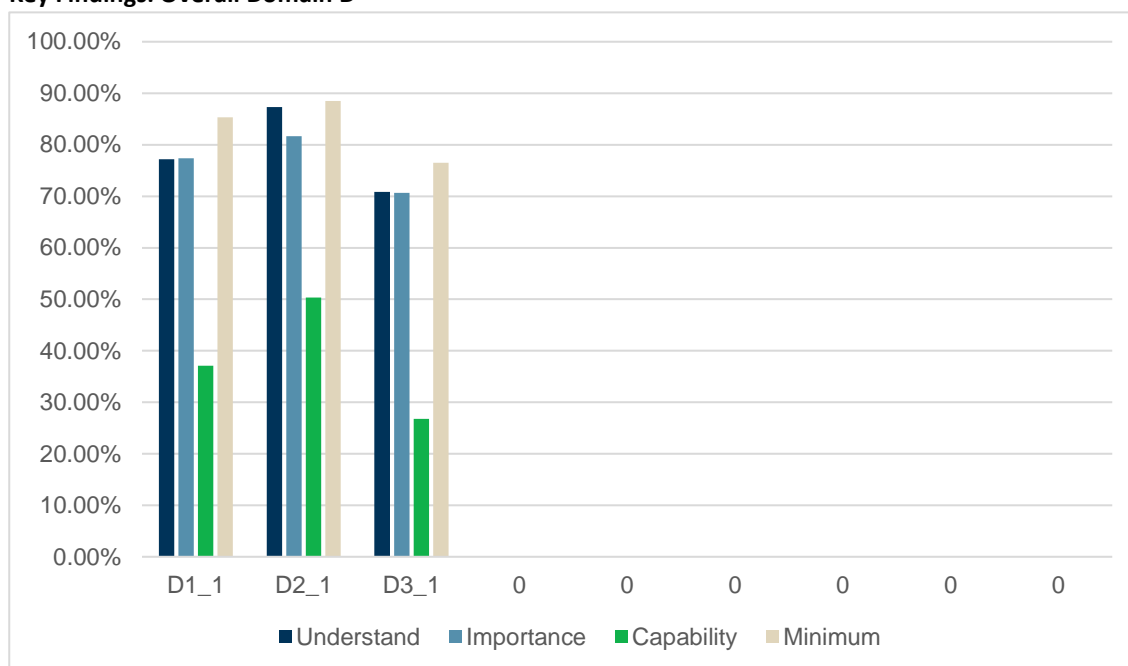
Figure 5: Domain D Findings

The figure above shows that across the categories, survey participants (including teachers and student teachers) report they understand and perceive importance of the TCSF Domain D quite well (M=78 and M= 77 respectively). Perceptions of capability were again lower (M=38). In particular, teachers and student teachers reported positive perceptions of the minimum requirements to a high level (M=83).

Implications for practice

The findings of this phase indicate that overall, the TCSF is perceived to be a useful mechanism to support the career trajectories of Myanmar's education profession. Survey respondents, including teachers and student teachers, appeared to understand the TCSF well, indicating that the education reforms supported by the MoE are having a significant impact on awareness of the TSCF within Myanmar. Teachers and student teachers across Myanmar reported good levels of satisfaction with the implementation of the TSCF, indicating willingness to adapt to the changes driven by the National Education Sector Plan (NESP). Teachers and student teachers also reported feeling valued, and this is important, as a sense of autonomy over the changes to the profession can create engagement and motivation, and build a community of practitioners.

The survey data indicates that teachers and student teachers in Myanmar are open to further supporting mechanisms to enhance teaching capability within Myanmar. Amongst teachers and student teachers, support for early career teachers was highly valued, indicating a willingness to implement the TSCF and engage with the profession, both for male and female teachers, regardless of qualification level of system taught in. It is also encouraging to note that established teachers placed high value on supporting early career teachers as a mechanism to build collective efficacy in the profession. This finding is encouraging, and may support Myanmar's MoE to build capacity in teachers along their career trajectory. Thus, based on the findings of Phase 2, it is recommended that implementation of the TCSF focuses on utilising the experience of established teachers to drive engagement and professional development with early career teachers, while continuing to provide time and resourcing for the most experienced of Myanmar's teachers.

3.3   Phase III – Case studies of teaching practice

The third phase of the validation study uses a small set of case studies to focus closely on ensuring that the TCSF can be demonstrated by effective teachers in Myanmar, in a diverse range of contexts. A multiple-case study design enables a cross-section of schools and contexts from across Myanmar to be included in the sample, to a total of ten cases. A combination of semi structured interviews, questionnaires, and observational data was utilised for this phase of the validation study.

Key Findings

The case studies offer insights into the ways in which the TCSF is understood and beginning to be aligned to teaching practice in Myanmar. The findings of this phase indicate that overall, teachers who were involved in the research phase were attempting to utilise the TCSF across the majority of Domains, Indicators and minimum requirements. Teachers who participated in the case studies exhibited much concern for their profession and for students in Myanmar, and reported a strong desire to engage in further professional development mechanisms to improve their teaching practice and understanding of the TCSF. There were also a number of areas of the TCSF that were not apparent in regards to use of the TCSF in practice, suggesting the need to examine teaching practice further as the MoE moves towards implementation. The key findings from Phase III are outlined below:

- Across the 4 domains, case study participants appeared to be attempting to meet the minimum requirements;
- Although case study participants were able to describe *what* they did in regards to the 4 Domains, they were less able to describe *how* they employed pedagogical approaches to their teaching.
- Participating teachers reported setting goals for students and having confidence in monitoring student learning. However, establishing clear learning objectives was not always apparent in classroom observations;
- Teachers made efforts to consider gender and inclusion mechanisms in their practice;
- In over half of the classroom observations conducted, observers did not record teachers referring to student' culture or context, suggesting the ability to link lessons to a student's life requires professional support;
- Case study teachers expressed a desire for greater access to resources across the profession, including time to support students of diverse ability;
- Teachers expressed value in mentoring, collegial practice, and school and community engagement;
- There was limited evidence of teachers using ICT in classroom observations;
- Participants highlighted a need for professional development to support the monitoring of student assessment and achievement;
- Access to tailored professional learning resources aligned to the TCSF was also identified as an area of interest for participating teachers.

Detailed descriptions of the findings of the case study phase are provided below. Findings are described by domain in line with the methodological approach taken to data collection and analysis.

Domain A: Professional Knowledge and Understanding

Based on the data gathered in Phase 3, it appears that teachers are attempting to meet the minimum requirements outlined within Domain A in their practice. Teachers who participated in the case study component of the validation study identified a desire to improve their ability to monitor student improvement, to apply new pedagogical methods, and use more technology in the classroom. These are encouraging findings which demonstrate a willingness to improve professional knowledge and understanding. However, there are some areas that are worthy of further exploration as the TCSF moves forward and becomes further embedded in education policy, as explained in the remainder of this section. There is evidence to show that teachers are setting goals for their own teaching practice and maintaining records of student learning. Teachers reported confidence in addressing the needs of all students, however, there is less certainty over *how* teachers are able to provide students with support, regardless of ability.

There was also little evidence of how teachers are using information technology in the classroom, suggesting an opportunity for exploration in understanding the implementation of the TCSF in Myanmar schools in regard to effective ICT use. This is particularly relevant for students with additional learning needs who have been shown to benefit from access to digital technologies, and aligns with the findings of Phase II- survey, which indicated that teachers only engage occasionally with ICT. Finally, given the varying levels at which teachers reported receiving feedback on their teaching practice and the lack of evidence linking feedback to either observation or professional learning, the responses suggest a desire for more opportunities for informative collegial discussion around teaching and learning approaches, rather than a mentor/mentee approach. Providing opportunities for participation in professional learning communities could support Myanmar's teachers to move beyond a mentor relationship, to actively engaging with their peers on ways to build collective teacher efficacy and communities of practice.

Domain B: Professional Skills and Practices

In the majority of lessons observed during the case study phase of the validation study, teachers outlined the learning outcomes of a lesson. However, in a third of classroom lesson observations, the teacher did not outline the learning outcomes of the lesson at all. This is a much higher proportion than those who did not outline the lesson focus, and it is worth investigating further as a lack of clear learning intentions may shape the learning opportunities afforded to students. There did not appear to be any questions, classroom observation categories, and corresponding data collected pertaining to teachers speaking positively to others about school culture and the primary curriculum to promote understanding among parents. This suggests areas for further exploration in the areas of school culture and community involvement. Providing opportunities for participation in professional learning communities could support Myanmar's teachers to move beyond a mentor relationship, to actively engaging with their peers on ways to build collective teacher efficacy and communities of practice.

In over half of the classroom observations conducted, observers did not record teachers referring to student' culture or context. In almost a third of the classroom observations, teachers were observed referring to a students' culture or context once or twice. These findings could suggest that this is not a common practice in the classrooms observed, or it may not have been relevant to the lesson focus or objectives. This is not surprising, as there has been research that found teachers find establishing the relevance or real world connection between classroom learning and students' lives challenging. Tapping into students' interests might be more subtle and better investigated using in depth interviews with teachers to explore their thinking and approach to planning. Both of these are related to facilitating student engagement and motivation to learn.

Domain C: Professional Values and Dispositions

There is some evidence to suggest teachers demonstrate positive attitudes towards teaching and learning. The responses presented in this section provide a number of opportunities for supporting the development of professional dispositions and values within the system. In relation to Domain C, there is evidence to emphasise the value of teachers' attitudes towards teaching and learning, leading in community, and being part of a shared responsibility over student learning, when engaging both with parents and the broader school community.

There was also some evidence of teachers participating in school and community activities from the perspective of head teachers, though this was less clearly articulated amongst teacher level respondents. There was less evidence of quality and equity in classroom practice. In relation to developing professional values and dispositions as a means to improving educational quality and equity, the responses illuminate a need for further support around the value of learning communities within the school as a mechanism to support all students.

Domain D: Professional Growth and Development

The responses indicate several possible avenues to improvement and continued teacher development within the system. In relation to Domain D, there is clear evidence to suggest teachers are demonstrating a willingness to collaborate with others to support their own learning, whether in a mentoring situation with a more experienced colleague, or alongside others in a professional learning cluster. There is also evidence to show that teachers are setting goals for their own practice and seeking out opportunities and materials to further their own progress towards these goals. It is somewhat less clear the process that teachers are going through to identify goals for development, whether they have adequate access to research-based materials and information to support them in achieving these goals, and how teachers might be using reflective practice to make decisions about their own professional learning needs.

The data analysed in Phase 3 of the validation study also suggests that teachers have no access to the curriculum documents. If access to teacher guides are available in Myanmar, it would be beneficial for teachers to access to these ready-made materials. In relation to reflecting on evidence of student learning, the responses suggest a desire for more support in assessing student progress and monitoring individual student learning. If access to teacher guides are available in Myanmar, it would be beneficial for teachers to access to these ready-made materials. In relation to reflecting on evidence of student learning, the responses suggest a desire for more support in assessing student progress and monitoring individual student learning.

Implications for Practice

The case study component of the validation study suggests that the nature and focus of communication and collaboration around the implementation of the TSCF have begun to evolve over the course of the validation study.

The development of the TCSF means that teachers have the potential to align professional and career goals with the professional learning and development they need to do in order to reach those goals. The TCSF could be used for professional growth, contributing to the further development of professionalism among teachers in Myanmar. In turn, the TCSF ensures that teachers have a reference point to improve their practice. Indeed, over time it is likely that the TSCF will lead to a sharing of knowledge about effective implementation practices at the school level, indicating progress from a predominant focus on the regulatory implementation of the TCSF (procedural use) towards an increasing focus on the implementation of the TCSF to support the professional growth of teachers (extended use). Throughout this report, we have highlighted the TCSF domains, minimum requirements, and indicators that are readily and somewhat evident. Other standards are not evident, but this does not mean they are not useful or relevant, but rather, emphasise that there is still limited evidence of how the TCSF align to effective teaching practice. This is a key point in informing recommendations for taking the TCSF forward. This will be discussed in more detail in the next sections of this report.

4   Conclusion

The validation study originally sought to understand perceptions of the TCSF across the education profession, and in doing, to answer the central research question: *does the TCSF describe effective teaching in Myanmar*? Yet as the validation study has progressed, it has become clear that this question cannot yet be answered because levels of knowledge, understanding, and chances to explore TCSF themes in practice are still emergent. Therefore, this validation study, while conducted over a period of fourteen months, should be considered as presenting findings guided by research questions at the beginning of a broader standards-based reform. In so doing, we can move from a baseline point to considering future implementation.

Although systemic change may take time, it appears the TCSF has begun to make an impact on teaching practice in Myanmar, even while the validation study is still underway. The TCSF is already being used as the basis for some teacher education courses, and the spread in awareness through the validation study will help increase engagement with the TCSF in teacher education. Similarly, the validation study – especially the teacher survey – has helped to raise awareness of the TCSF among schools, and provoke thinking about what the TCSF might mean for improving educational practice. The curiosity about the TCSF sparked by the validation study may itself prove to be an effective stimulus for practice improvement, even before systems are in place to mandate the use of the TCSF system-wide. If teachers are using, critiquing, and discussing the TCSF, then they are already demonstrating the conditions necessary for further teaching and learning.

In time, it is likely that the TCSF will become more embedded within the teaching profession, setting the scene for a major and important cycle of teaching reform and professionalization in Myanmar. As the national language of teaching is being refined and aligned to the TSCF, the TSCF offers a vision for future practice and policy in Myanmar education. While teachers display knowledge of and confidence in discussing the TCSF, the level, nature, and impact of implementation in classrooms remains unclear. This is important, as understanding implementation practice can support the alignment of professional development programs against the TCSF, thereby improving educational practice and quality. Hence, even though the TCSF as a framework for good teaching practice appears to be becoming more widely understood, the depth of impact of its implementation (especially into classrooms) must now be developed. If this kind of impact is achieved, the implementation of the TCSF can be considered as establishing the foundation for substantive reform in Myanmar's education that will ultimately impact student learning outcomes. The TSCF offer the potential for a common national language and framework for self-reflection and feedback on teaching practice. If the TCSF is embedded in purposeful practices and policies, as supported through future implementation, there is a greater likelihood of teachers embracing the TCSF.

5   Next Steps: From Validation to Implementation

It appears to date, that the Myanmar education system is grappling with a shift in thinking around the use of standards, which is to be expected at a time of broader education reform. As this study has found, many policymakers, researchers, educational leaders, teacher educators, and teachers are knowledgeable of, and perceive the TCSF to be of overall importance to the future of Myanmar's education system. However, there is less evidence of *how* the TCSF are and can be used in classrooms. The real challenge of this validation study therefore lies in the implementation of the TCSF, and the evaluation and monitoring of this education reform, and thus, an evaluation of the implementation of the TSCF would be important in order to track a national reform.

Broadly speaking, the TCSF are about inducting teachers into new modes of practice, which is more likely to occur when they have ongoing opportunities to engage and experiment with the TCSF. It is our view that evaluation and reflection on practice for improvement is essential for ensuring the use of the TCSF. It is important to note that this should not be restricted to teachers alone. Use of the TCSF offers a chance for improvement from early career to school leader level, and indeed those working in sector education organisations, as well as regulatory authorities and research bodies. Indeed, in consideration of other education systems and how they operate, there remains a need to understand the ways that the TCSF can support a developmental progression of skill amongst Myanmar's teachers. Here, differences across groups within education are to be expected, particularly given the reality of diverse contexts within the broader education system. Similarly, at a national level, the notion of the TCSF has already begun to be adopted by some members of the education sector who hold the potential to influence the teaching profession. Like the SQASF component of Myanmar's education reform focus, it is intended that the TCSF will be utilised in planning for professional learning, performance and development frameworks, and whole school planning and strategy. Embedding the TCSF in classroom practice will take much more time and effort, but this integration and alignment to existing policies and practice will be needed to effect widespread change in professional culture and ultimately student learning and outcomes.

It is important to remember that the validation study is only one step on the pathway to TCSF implementation. Turning to policy implementation, Berman (1980) suggests three phases of implementation — mobilisation, implementation, and institutionalisation. The findings of this validation study suggest the TCSF are at the stage of mobilisation, in which awareness and intention to use are becoming increasingly apparent. While policies and reforms often change rapidly, the TCSF should be sufficiently embedded in the minds of many teachers so as to lead to reforms than can have considerable impact on teaching and learning over the next generation. Indeed, the TCSF implementation process is likely to be complex and incremental, especially as it must take into account dependencies with other reform processes, including the SQASF, and new curriculum (both the new curriculum for K–12 education, and the new curriculum for teacher education courses). The timing of all TCSF implementation activities must be well-integrated with other related reforms, to ensure that teachers experience the Myanmar policy agenda for school reform as coherent and achievable. Accordingly, based on the findings from the three phases of research, we are able to offer a number of comments about the TCSF's validity in order to direct future implementation practice in Myanmar.

The analysis presented in this study has attempted to identify areas of the TCSF which could be improved. However, at this stage, we would not recommend any amendments to the current TCSF, as there is not enough evidence to suggest that across Domains, indicators, and minimum requirements, study participants perceive any areas as less important or useful than another. Anecdotally, our involvement in other teacher competency standards research suggests that some of the TCSF indicators may be too challenging for beginning teachers, however, there is no evidence in the data presented in this report to indicate this is the case for Myanmar's teachers. As implementation moves forward, evaluating the ways in which teaching practice and alignment to the TCSF can be evidenced may help to tease out areas for refinement and development in the future. Regardless, we have a way forward as Myanmar moves from validation to implementation: understanding *how* the TCSF are better used in practice. Subsequently, the next sections of this report offer a number of recommendations for consideration as the TCSF is implemented in Myanmar.

5.1   Enhance awareness and knowledge of the TSCF

As past studies have demonstrated (see Clinton et al, 2015), awareness and knowledge of teacher competency standards is key to informing and predicting uptake. From a policy interpretation and implementation perspective, awareness relates to surface level, while knowledge relates to a more profound understanding of the policy. Knowledge is the first step towards interpreting a policy, before then enacting it in a particular setting. Prior to becoming aware and knowledgeable of a policy reform, a teacher may be resistant to, or have no intention of, enacting the required behaviour changes to implement new policy mechanisms in their practice. Conversely, a teacher with high knowledge of the TCSF would understand the domains, indicators, and the minimum requirements needed to utilise the TCSF to inform practice. Therefore, according to models within behavioural psychology, increasing knowledge and awareness is the first step towards meaningfully changing one's behaviour (Prochaska et al., 1997).

The validation study, in particular the activities undertaken in Phase 2, demonstrate that preliminary levels of knowledge of the TCSF appear consistent, with very little variation across demographic groups. However, as the TCSF

are implemented, increases in knowledge would be expected, but must continue to be monitored. This is important, as knowledge is a precursor to productive use of teacher competency standards, but, on its own, is insufficient for sustainable implementation. As demonstrated by the findings of the study, many survey respondents felt less confident in their perceived competency, than in their understanding of the TCSF. Therefore, as the TCSF moves to implementation, there is a need for targeted resourcing and professional development to address issues of variation and support those teachers who may not have yet had access to quality professional development opportunities that promote knowledge, or may need additional support in adapting the TCSF to their context.

Embedding the TCSF within existing education policies may also support engagement with the TCSF. This is particularly relevant for the most experienced teachers in Myanmar, as in other studies of standards based reform in the Asia Pacific region, teachers with higher levels of experience have reported facing significant pressure to enact multiple major reforms simultaneously (Call, 2018; Ingvarson, 2010; Masters; 2015). As a result, such teachers often feel overwhelmed by the scale and scope of national education change. This is relevant and has implications for teachers in Myanmar due to the magnitude of education reform currently taking place. For example, other national reforms such as the SQASF may be time-consuming, and could divert time and energy away from the implementation of the TCSF. It is for this reason that the approach to broader education reform must consider ways to embed and align the TCSF in existing policies.

It is also important to acknowledge that major reforms in education are unlikely to be successful unless teachers are given adequate time and resources. In addition to explicit professional development around knowledge of the TCSF, teachers need adequate time and resourcing to support implementation and uptake of the TCSF. In particular, pre- and in service professional development frameworks that have already been drafted may support engagement with the TCSF moving forward. Teachers also require mentoring, coaching, and school based opportunities to experiment with the TCSF in practice and work towards extended use. Targeting the dissemination and promotion of research findings such as those presented in the TCSF validation study can lead to the development of specific resources across teaching communities, which provides opportunities for evaluation and reflection at a school, sectoral, and system level.

5.2   Identify and involve key stakeholders in the implementation of the TCSF

Stakeholders typically become aware of a policy through a number of different channels and sources. To begin, the policy-making body would typically engage in a consultation process, whereby the policy is circulated and feedback sought. Then, a process of consultation and dissemination of policy information may be enacted. In the case of the TCSF, organisations that provide professional learning and development, sectoral education bodies, regulatory authorities, and the MoE itself, each have a key role to play in building awareness and knowledge of the TCSF. However, it is important to consider the extent to which stakeholders' initial understandings of the TCSF, as a policy, are likely to be shaped, at least in part, by prior knowledge, beliefs, and experiences. These beliefs and attitudes may include the degree of clarity and actionable nature of the policy; how well supported and resourced implementers feel to implement the policy; implementers' personal self-efficacy to implement the policy; whether the policy serves their own interests; and how likely it is that the policy will lead to valued outcomes across the sector (i.e., enhancing student learning outcomes).

Key stakeholders, such as teachers, policy makers, and others involved in the implementation of the TCSF will then need to undergo a process of interpreting the TCSF and translating those interpretations into practice. Based on initial encounters with a given policy, stakeholders at varying levels (i.e., schools, professional associations, and agencies at state and national levels) will then begin to formulate their attitudes and beliefs in relation to the policy (see Desimone et al 2002). Whether or not the primary audience of a policy (e.g., teachers) are positively or negatively disposed to the policy, has clear implications in regard their willingness to engage with the policy reform, and their motivation to enact it in practice. While this kind of individualised engagement is influential in determining early reactions to a policy, 'situated cognition', or attitudes and beliefs formed within the context of social interactions, are arguably even more persuasive in fostering an evolving interpretation of the policy (Spillane, Reiser & Reimer, 2002). It is therefore critical for the MoE to consider the creation of structured networks to support monitoring, evaluating, and implementing the TCSF across Myanmar.

5.3   Use ICT mechanisms to support teacher practice

Over the course of the validation study, teachers and student teachers appeared to engage to limited extent with information communication technology mechanisms. Phase 2 highlighted that ICT was only used occasionally in the schools and education colleges of teachers and student teachers. Similarly, across phase 3, ICT was not readily observed in classrooms, and was not identified as a mechanism for successful teaching practice or for future implementation of the TCSF. There was also little evidence of how teachers were using information technology in the classroom to inform pedagogy or support different types of students, suggesting an opportunity for exploration in understanding the implementation of the TCSF in Myanmar schools in regard to effective ICT use. This is important, as research indicates that ICT can greatly enhance teaching and learning. Further, and in relation to Myanmar's increasing focus on inclusion and equity within education systems, recent research undertaken in the Asia Pacific region indicates that ICT can augment opportunities to learn, particularly for students with additional learning needs (Adam and Tatnall, 2017; Enkhtsogt & Kim, 2018; Sumardi, Ayu & Naim, 2019). Thus, considering ways to continue to support and motivate Myanmar's teachers to engage with ICT mechanisms is important to support teaching practice and promote educational quality for all students.

5.4   Communicate the implementation of the TCSF in an aspirational way

Closely related to targeting resources for extended use is the need to achieve and maintain a balance between compliance based, and developmental purposes of the TCSF. Indeed, Phase 3 of the validation study has indicated there may be a perceived lack of clarity as to the purpose and intent of the TCSF. This must be clarified in resourcing and communications to teachers, as the very nature of the TCSF is intended to enable teachers to identify their own professional needs and conduct their own self-assessments. This kind of reflection supports professional dialogue and self-directed career progression. However, it remains a challenge to determine the extent to which the TCSF are meant for procedural use or extended use. This is important, as teacher evaluation and performance review is a major concern globally for teachers and systems alike.

Teachers are often given responsibility over student engagement and achievement, yet there is often suspicion around the role of teacher evaluation. This mindset can reduce any sense of enhancement within the profession, and progress of practice linked to constructive feedback which is likely to occur when implementing the TCSF. Achieving balance in the dual uses of the TCSF is critical to the future success of the TCSF in terms of achieving the intended outcome of enhanced teacher quality. Embedding and communicating the purposes of the TCSF as being about growth, may over time reduce anxiety, and it is critical to ensure that authorities across the states continue to consider the need to balance local policy against a backdrop of national reform in order to ensure successful implementation of the TCSF. Thus, to fully institutionalise the TCSF across Myanmar, it is essential that the education sector nationally do not lose sight of continuing the implementation process and maintaining the balance between procedural and developmental uses of the TCSF.

5.5   Target schools and teachers to create buy-in

Honig (2006) has emphasised the role of 'people' (i.e., those charged with implementing the policy) as the critical mediators of implementation success. In particular, school leaders and professional communities of practice (such as leadership groups and in-school steering committees) may play an important role in supporting the implementation of policy through their capacity to shape stakeholder knowledge, and their beliefs surrounding the particular reform. Coburn and Stein (2006) identify teachers' professional communities of practice as crucial sites for implementation and highlight their organisational context and interactions as key mediators of the change process. Similarly, middle level leaders (such as heads of departments) may serve as key instigators for change when teachers are the primary audience of the policy, by mediating between teachers and accountability bodies. In this sense, middle level leaders can be champions for the reform, provide motivation, aspiration, and promotion, and contextualised guidance regarding actions, and foster collaboration between teachers.

Spillane, Reiser & Reimer (2002) and Fullan (2010) have written extensively on the importance of giving teachers the opportunity to talk to one another about policy reforms to facilitate the social sense-making processes. However, research has found that many teachers do not have enough opportunities to receive quality feedback from peers and/or mentors about their developing use of standards based mechanisms (Clinton et al, 2015). Some teachers see performance evaluations linked to teacher competency standards as either superficial or performative. This challenge

continues to be researched internationally, where there is growing evidence that teachers feel they lack adequate attention, support and recognition for the work they do, and as a result may become disillusioned. Here, the future implementation of the TSCF offers many opportunities to support the development of professional collaborations at both the organisational and individual (peer-to-peer) levels.

Forms of professional learning and development that engage teachers in locally situated and context-specific engagement with policy initiatives such as the TCSF, also position teachers to take ownership and shared accountability in the implementation of any reform. Existing education policy and school leadership research suggests that the success of any reform depends on the ability of school leaders to clearly understand policy initiatives, shape a reform vision, establish clear goals for the school, and mobilise staff towards the achievement of set goals (Caldwell & Harris 2008; Elmore 2004). While there was emergent evidence of professional dialogue using the language of the TCSF in Phase 3 of the validation study, there was less evidence of how this occurred, and indeed, the ways in which teachers and their mentors or leaders can work together to build collaboration. This is important, as collaboration between leaders and teachers leads to enhanced relationships, which has in turn been linked to student outcomes, reduced attrition rates, and a sense of professionalisation (Fullan, 2010).

The data collected in Phase 3 also suggests there is richness in local mentoring and information-sharing arrangements that will allow teachers to engage with the TCSF in ways tailored to their local contexts and demands. This aligns to existing research on policy implementation which suggests that teachers make sense of new policies through processes of 'enactment' in real-life settings (Ball, 1998; Ball et al, 2012; Honig, 2006). Teachers can be understood, therefore, as policy actors who are central to making the TCSF 'real' in schools. Accordingly, monitoring uptake and implementation of the TCSF could in turn support the future investigation of the relationship between the TCSF and student achievement during a time of broader education reform in Myanmar.

5.6   Explore the link between the TCSF and student achievement

The idea underpinning the TCSF is that quality teaching will lead to quality learning. However, over the course of the validation study, the perceived relationship between the TCSF and student achievement has not been fully explored. Across phases one to three, student achievement was rarely identified as a mechanism for successful implementation of the TCSF. As the *raison d'etre* for teacher competency standards in the countries that have chosen to implement them, the relationship between enhanced student achievement and the implementation of teaching standards is an area that therefore warrants further investigation. For Myanmar, supporting uptake and expansion of this policy reform may be enhanced by connecting implementation of the TCSF to other mechanisms, such as the SQASF-SQIP (School Quality Assurance Assessment Framework-School Quality Improvement Plan). These mechanisms can improve the awareness of teachers on learning outcomes and learning achievements that aim to enhance student opportunities to learn.

6   Final thoughts

This validation study has demonstrated that the TCSF offer an opportunity for improvement within Myanmar's teaching profession, setting the scene for a major and important cycle of teaching reform and professionalisation. The TCSF offer a basis for future development and monitoring of teaching practice across various levels and in various areas. As expectations for Myanmar's teaching profession become refined and aligned to the TCSF, the TCSF offer a vision for future practice and policy in Myanmar. While the TCSF will likely play an integral role in the broader context of national schooling reform in Myanmar, complex questions and uncertainties remain about who is best placed to take responsibility for driving different aspects of the reform, and supporting monitoring and evaluation. The MoE has a powerful role to play in supporting professional practices that drive meaningful and sustainable implementation of the TCSF, but in ways that also recognise the complex dynamics of Myanmar's education system. In this context, it would appear that the MoE can advocate for the TCSF, educate about the TCSF, support implementation, and provide leadership at a national level. However, the ways in which the TCSF are interpreted and put into practice in local contexts may be more problematic and requires cooperation and collaboration across all levels of the education profession.

Throughout this report, we have provided a number of areas for consideration and exploration within the TCSF that may support Myanmar's teachers to use the TSCF more readily and meaningfully. Although we have some indication of the practices that are already being used, there are notable opportunities for further research, research that

extends our understanding of teaching practices that aren't readily observable. Applying specific methodology will enable a movement from hypothesis of teaching practice to detailed exploration in developing mechanisms to support the uptake and impact of the TCSF. Thus, it is our final recommendation that the MoE continues to support the momentum of this reform through further exploration of implementation, and curated evidence of teaching practice aligned to the TSCF. By providing support for the reform moving forward, the implementation of the TCSF can become a shared responsibility between policy makers and practitioners alike.

The TCSF offer much potential for professional growth, contributing to the further development of professionalism and ownership of the TCSF among teachers in Myanmar. The TCSF offer a common approach to teaching, and a framework for reflection on practice as a way by which to improve teaching quality. If the TCSF are embedded in purposeful policies and practices in the realms of performance and development, professional learning, and self-reflection, there is a greater likelihood of teachers embracing the TCSF. Consequently, as the implementation of the TCSF moves forward, further consideration might be given as to how the Ministry of Education can best position itself as a partner in this reform, supporting states, sectors, and individual institutes and schools as they begin to use and embed the TCSF in broader practice.

7   References

Adam, T., & Tatnall, A. (2017). The value of using ICT in the education of school students with learning difficulties. Education and Information Technologies, 22(6), 2711-2726.

Australian Institute for Teaching and School Leadership (2011). *Australian Professional Standards for Teachers*. Melbourne: Education Services Australia.

Ball, S. J. (1998). Big policies/small world: An introduction to international perspectives in education policy. Comparative education, 34(2), 119-130.

Ball, S., Maguire, M., Braun, A., Perryman, J., & Hoskins, K. (2012). Assessment technologies in schools: 'Deliverology'and the 'play of dominations'. *Research Papers in Education*, *27*(5), 513-533.

Berman, E. H. (1980). The foundations' role in American foreign policy: the case of Africa, post 1945. *Philanthropy and cultural imperialism: the foundations at home and abroad*, 205.

Caldwell, B., & Harris, J. L. (2008). *Why not the best schools?* Australian Council for Educational Research.

Call, K. (2018). Professional teaching standards: A comparative analysis of their history, implementation and efficacy. *Australian Journal of Teacher Education*, *43*(3), 6.

Chróinín, D. N., Tormey, R., & O'Sullivan, M. (2012). Beginning teacher standards for physical education: Promoting a democratic ideal? *Teaching and Teacher Education*, *28*(1), 78-88.

Chung, H. & Kim, H. (2010). Implementing Professional Standards in Teacher Preparation Programs in the United States: Preservice Teachers' Understanding of Teaching Standards. *KEDI Journal of Educational Policy, 7*(2), 365-377.

Clark, N. (2013). Education in South Korea. Asia Pacific. *World Education News and Reviews*.

Clinton, J., Dinham, S., Savage, G., Aston, R., Dabrowski, A., Gullickson, A. & Arbour, G. (2015). *Evaluation of the Implementation of the Australian Professional Standards for Teachers*.

Clinton, J., & Dawson, G. (2018). Enfranchising the profession through evaluation: a story from Australia. *Teachers and Teaching*, *24*(3), 312-327.

Coburn, C. E., & Stein, M. K. (2006). Communities of practice theory and the role of teacher professional community in policy implementation. *New directions in education policy implementation: Confronting complexity*, 25-46.

Cochran-Smith M. & Zeichner K. (Eds.). (2005). Studying Teacher Education: The report of the AERA panel on research and teacher education. Washington, DC: American Educational Research Association.

Danielson, C. & McGreal, T.L. (2000). Teacher evaluation to enhance professional practice. Alexandria: *Association for Supervision and Curriculum Development.*

Darling-Hammond, L. (1998). Teachers and Teaching: Testing policy hypotheses from a national commission report. *Educational Researcher, 27*(1), 5-15.

Darling-Hammond, L. (2000). Teacher Quality and Student Achievement: A review of state policy evidence. *Education Policy Analysis Archives, 8*(1), 1-44.

Darling-Hammond, L. (2001). Standard setting in teaching: Changes in licensing, certification, and assessment. In V. Richardson (Ed.), *Handbook of research on teaching.* Washington: American Educational Research Association.

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, *40*(3), 291-309.

Davis, D. (1962). Professional Standards in Teaching: Moving from Ideas to Action. *Journal of Teacher Education, 13*(2), 191-202.

Delandshere, G., & Petrosky, A. (2004). Political Rationales and Ideological Stances of the Standards based reform of Teacher Education in the US. *Teaching and Teacher Education, 20*(1), 1 – 15.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational evaluation and policy analysis*, *24*(2), 81-112.

Dinham, S. (2013). The quality teaching movement in Australia encounters difficult terrain: A personal perspective. *Australian Journal of Education, 57*(2), 91–106.

Dinham, S.; Ingvarson, L. & Kleinhenz, E. (2008). Investing in Teacher Quality: Doing What Matters Most', in *Teaching Talent: The Best Teachers for Australia's Classrooms*. Melbourne: Business Council of Australia.

Doecke, B. (2001). Public and personal domains: Professional standards for teachers of English in Australia. *Educational Studies in Language and Literature, 1*(2), 163-177.

Education Council of New Zealand (2017). *Graduating Teacher Standards.* Retrieved from https://educationcouncil.org.nz/content/graduating-teacher-standards

Elmore, R. F. (2002). Bridging the gap between standards and achievement: The imperative for professional development in education. *Secondary lenses on learning participant book: Team leadership for mathematics in middle and high schools*, 313-344.

Enkhtsogt, T. A., & Kim, Y. (2018). Major Principles of ICT Policy for Improving ICT Integration in Education for Students with Disabilities in Mongolia. *Asia-Pacific Collaborative education Journal*, 14(2), 21-32.

Fullan, M. (2010). *All systems go: The change imperative for whole system reform*. Corwin Press.

Honig, M. I. (2006). *New directions in education policy implementation*. Suny Press.

Hudson, P. (2009). How can preservice teachers be measured against advocated professional teaching standards? *Australian Journal of Teacher Education, 34*(5), 65-73.

Kleinhenz, E. & Ingvarson, L. (2007). *Standards for Teaching: Theoretical Underpinnings and Applications.* Australian Council for Education Research.

Ingvarson, L.C. (2010). Recognising Accomplished Teachers in Australia: Where have we been? Where are we heading? *Australian Journal of Education, 54*(1), 46 – 71.

Ingvarson, L.C. & Rowe, K. (2007). Conceptualising and Evaluating Teacher Quality Substantive and Methodological Issues. ACER.

Ingvarson, L.C, Reid, K, Buckely, S, Kleinhenz, E. Masters, G.N. & Rowley, G. (2014). Best Practice Teacher Education Programs and Australia's Own Programs. *Teacher Education*. 1 – 91

Jackson, J. & Nietschke, Y. (2018). *Validating professional standards for teachers: A practical guide for research design*. Camberwell, Australia: Australian Council for Educational Research.

Leonard, S. (2012). Professional Conversations: Mentor Teachers' Theories-in-Use Using the Australian National Professional Standards for Teachers. *Australian Journal of Teacher Education, 37*(12), 46-62

Masters, G. (2015). Raising the Professional Status of teaching. *Teacher Magazine.* Retrieved from https://www.teachermagazine.com.au/geoff-masters/article/raising-theprofessional-status-of-teaching

Mayer, D., Mitchell, J., Macdonald, D. & Bell, R. (2005). Professional Standards for Teachers: A Case Study of Professional Learning. *Asia-Pacific Journal of Teacher Education*, *33*(2), 159-79.

My-EQIP. (2018). Validation Study of the Myanmar Teacher Competency Standards Framework (TCSF): Preparatory snapshot review. Yangon, Myanmar: Myanmar Education Quality Improvement Program (My-EQIP).

Prochaska, J. O., & Velicer, W. F. (1997). The transtheoretical model of health behavior change. *American journal of health promotion*, *12*(1), 38-48.

Sergiovanni, T. J. & Starrat, R. J. (2002). *Supervision: A redefinition.* Boston, MA: McGraw-Hill.

Spillane, J. P., Reiser, B. J., & Reimer, T. (2002). Policy implementation and cognition: Reframing and refocusing implementation research. *Review of educational research*, *72*(3), 387-431.

STEM & My-EQIP. (2018a). Teacher Competency Standards Framework (TCSF) Beginning Teachers. Draft Version 2.2, 27 December 2018. Nay Pyi Daw, Myanmar: Myanmar Education Quality Improvement Program (My-EQIP) & UNESCO.

STEM & My-EQIP. (2019). *Teacher Competency Standards Framework (TCSF) validation study. Expert Review Survey and Information Sheet*. Nay Pyi Daw, Myanmar: Myanmar Education Quality Improvement Program (My-EQIP) & UNESCO.

Sumardi, S., Ayu, A., & Naim, M. (2019, July). Reading Habit Development with ICT Support for Students with Specific Learning Disabilities in Jember, Indonesia. In 6th International Conference on Educational Research and Innovation (ICERI 2018). Atlantis Press.

Tang, S., Cheng, M. & So, W. (2006). Supporting student teachers' professional learning with standards-referenced assessment. *Asia-Pacific Journal of Teacher Education*, *43* (2), 223-244.

Tuinamuana, K. (2011). Teacher Professional Standards, Accountability, and Ideology: Alternative Discourses. *Australian Journal of Teacher Education, 36*(12), 72 – 82.

8 Appendix 1: Framework for Synthesis

The final phase of the validation study involves synthesising findings from all three phases, to prepare a report on the validation of the TCSF overall. The framework for synthesising the findings from each phase is informed by the five types of validity, as shown in Table 3 below:

Table 3: Framework for synthesising findings from the three phases of the TCSF validation study

	Expert review	Teacher survey	Case studies
Consequential validity *Does the TCSF deliver benefits and impact, without incurring undue costs or risks?*	Focus group discussions will explore whether experts think the TCSF is usable (likely to have impact)	Investigates whether using the TCSF to think about practice is a useful professional learning activity	Participants and researchers may gain professional learning by using the TCSF to think about practice
Content/substantive validity *Does the TCSF describe effective teaching, as it is defined in theory and demonstrated in practice?*	Confirms whether experts think the content of the TCSF is clear, achievable and assessable	Confirms whether teachers think the elements of the TCSF are important, and whether they describe their current practice	Provides evidence of whether the TCSF describes effective teaching as it is demonstrated in practice
Structural validity *Do the TCSF components (domains, standards, elements and indicators) interrelate as expected?*		Provides data that could be analysed psychometrically, to investigate structural patterns in the TCSF	Will help confirm whether domains, standards, elements and indicators fit together well in practice
External validity *How is the TCSF related to other indicators that might be associated with effective teaching?*		Explores whether self-appraisal against the TCSF is related to other teacher characteristics	May offer insight into the relationship between effective teaching and other external factors
Generalisability *Is the TCSF relevant and achievable across all contexts and groups?*	Involves experts with diverse characteristics, expertise and experience	Uses a representative sample of teachers and teacher education students	Adds to understanding about what effective teaching might look like in different contexts

9   Appendix 2: Expert survey participants

Dr Ma Kyi Swe	YUOE	Teacher Education
Dr Myo Ko Aung	SUOE	Teacher Education
Dr Cho Mar	University of Development of National Races	Teacher Education
U Aung Myat Soe	Yankin EC	Teacher Education
Daw Aye Myint	Taungoo EC	Teacher Education
Daw Myat Thuzar	Hlegu EC	Teacher Education
Dr Khin Zaw	YUOE	Teacher Education
Dr Thein Lwin	YUOE	Teacher Education
Dr Khin Myo Myint Kyu	DDG (Retired)	Teacher Education
Dr Aye Aye Cho	YUOE	Teacher Education
Daw Cho Cho San	Mawlamyine EC	Teacher Education
Dr Tin Nyo	MAAS	Teacher Education
Dr Myint Myint San	ADB	Teacher Education
Daw Tin Tin Shu	JICA	Teacher Education
Daw Tin Ma Ma Htet	Paung Daw Oo Monastic School	Teacher Education
Dr Myint Myint San	DBE	Practice
Daw Van Ni San	BEHS-1	Practice
Daw Khin Mar Cho	BEHS-2,	Practice
U Win Khing	BEMS-3, High school(branch)	Practice
Dr Yu Mon Thaw	Township Education Office, Mayangone Tsp, Basic Education High School	Practice
Daw Yu Mon Tant Naing	Teacher Union	Practice
Daw Htay Htay Wai	Teacher Union	Practice
U Min Myat Phone	Teacher Union	Practice
Daw San San Yee	Teacher Task Force	Practice
U Aye Myint Than Htay	UNICEF /Practice	
U Aung Ba Thein	Private School	Practice
Daw Cho Cho Oo	A Lin Yaung Private School	Practice
Daw Zin Zin Win	Private School Association	Practice
Daw Su Su Htwe	Great Light Private School	Practice
Daw Nan Ei Mon	Member of MEDG	Practice
Mi Ong Sajaing	Partner of MEC	Practice
Mi Aie Mon	Partner of MEC	Practice
Daw Aye Aye Tun	Independent	Practice
Daw Aye Aye Thinn	Hope for shining Star	Practice
Dr Win Aung	National Education Policy Commission	Policy
U Mya Kyaw	National Education Policy Commission	Policy
Dr Daw Mya Kywe	National Curriculum Committee	Policy
Dr Lwin Lwin Soe	National Curriculum Committee	Policy
U Mae Aung	National Accreditation & Quality Assurance Committee	Policy
Daw Khin Mya Htwe	National Accreditation & Quality Assurance Committee	Policy
UWin Phay	Teacher Task Force	Policy
Daw Ni Ni Than	Dawei EC	Policy
Dr Tin Maung Win	DBE	Policy
Dr Tin Yu Yu Aye	DBE	Policy

Daw Aye Aye Mon Oo	DERPT	Policy
Dr Aye Thida Soe	DERPT	Policy
U Tin Htay	Department of Alternative Education	Policy
Dr Pye Kyaw Thu	Department of Technical Education and vocational Training	Policy
Dr Sharon Joy Berlin Chao	SEAMEO INNOTECH, Philippines	International
Prof Fuad Abdul Hamied		International
Asst Prof Dr Sitthikorn Sumalee	Kasetsart University, Thailand	International

10 Appendix 3: Case Study Participants

Table 4: Teacher and Head Teacher Case Study Participants

State/Division	Township	School	Head Teacher	Teachers
Kachin	Mogaung	Basic Education High School, Namti	Daw Kyin Yee	U Thura Tun
				Daw Aye Moon
		Basic Education Post Primary School, Ingyingone	Daw Khin Mya Moe	Daw Hninn Po
				Daw Cho Thae Mar
Kayin	Hlaing Bwe	Basic Education Middle School Hlaing Bwe	Daw Tin Htay	U Kyaw Win Phyo
				Daw San Yu Swe
		South East Adventist Seminary (SEAS)	Saw Day Htoo Sein	U Wah Gay
				Daw Noble Lin
Shan/ South Shan/ South	Lawk Sawk	Basic Education High School Ba Htoo	Captain Myo Myint Myat	Daw Ba Be
				Daw Nan Myint Myint Nwe
		Basic Education Primary School No. (10)	Daw Lin Lin Naing	Daw Ni Ni Than
				Daw Aye Aye Soe
Yangon	Mingalar Taung Nyunt	Aung Thitsar Private High School	Daw Theingi Oo	U Ba Thein
				U Myint Oo
		Basic Education Primary School No. (10)	Daw Than Than Swe	Daw Khin Than Htwe
				Daw Khine Zin Zin Chu
Magway	Myin Thar	Basic Education Primary School No. (1), Myinthar	U Aung Win Kyaw	Daw Kay Khing Htwe
				Daw Wai Wai Tun
	Myin Thar	Thidaryone Nunnary School	Daw Kalayar Ni	Daw Mya Mya
				Daw Ye Ye Maw

11 Appendix 4: Survey Demographic Tables

Representation of demographic clusters in Phase 2: Survey is provided below. Survey data was delineated by region, that is: Central; East; Lower; North (including Upper); South; and West. Representation was also captured across the demographic domains of gender, school system, school year level taught, qualifications, language, and use of ICT.

Table 5: Study sample: Gender representation by Region

	Male	Female
Central	26.55%	73.45%
East	20.75%	79.25%
Lower	21.31%	78.69%
North	29.60%	70.40%
South	16.21%	83.79%
West	31.89%	68.11%

Table 6: Study sample: School system representation by Region

		Public	Religious	Ethnic	Private	Education College
Region	**Central**	74.19%	4.32%	0.00%	11.78%	9.72%
	East	83.46%	4.47%	0.00%	5.37%	6.71%
	Lower	75.13%	6.30%	0.00%	10.94%	7.63%
	North	71.49%	10.64%	0.00%	8.09%	9.79%
	South	76.95%	4.79%	8.98%	6.14%	3.14%
	West	88.45%	3.67%	0.00%	5.51%	2.36%

Table 7: Study sample: School level representation by Region

		Primary	Lower secondary	Upper Secondary	Education College
Region	**Central**	53.58%	28.26%	13.84%	4.32%
	East	58.87%	24.59%	12.07%	4.47%
	Lower	53.32%	27.85%	12.53%	6.30%
	North	45.96%	31.49%	11.91%	10.64%
	South	58.83%	23.35%	13.02%	4.79%
	West	49.87%	33.86%	12.60%	3.67%

Table 8: Study sample: Qualification of Respondents by Region

		Diploma or lower	Bachelors	Post Graduate
Region	**Central**	18.43%	80.68%	0.88%
	East	24.10%	75.90%	0.00%

	Lower	19.35%	79.33%	1.32%
	North	18.96%	81.04%	0.00%
	South	27.18%	71.25%	1.57%
	West	26.45%	73.55%	0.00%

Table 9: Study sample: Language of Respondents by Region

		Kachin	Kayah	Karen	Chin	Mon	Bamar	Rakhine	Shan	Other
Region	**Central**	0.10%	0.00%	0.10%	0.40%	0.20%	98.31%	0.10%	0.30%	0.50%
	East	0.47%	3.27%	0.31%	0.47%	0.31%	65.63%	0.47%	9.80%	19.28%
	Lower	0.07%	0.07%	5.50%	0.88%	0.34%	92.13%	0.27%	0.61%	0.14%
	North	6.11%	0.29%	0.73%	1.60%	1.16%	82.39%	1.60%	4.37%	1.75%
	South	0.15%	0.15%	16.56%	0.00%	19.66%	57.89%	0.15%	0.00%	5.42%
	West	0.00%	0.00%	0.00%	19.11%	0.00%	6.09%	74.52%	0.00%	0.28%

Table 10: Study sample: ICT use of respondents by Region

		Never	Rarely	Occasionally	Often	Nearly always
Region	**Central**	14.97%	5.13%	60.30%	17.69%	1.91%
	East	12.20%	9.49%	63.40%	14.31%	0.60%
	Lower	7.95%	5.77%	61.75%	23.17%	1.36%
	North	10.33%	9.02%	58.66%	20.82%	1.16%
	South	15.01%	7.66%	60.18%	16.39%	0.77%
	West	25.00%	7.69%	54.67%	12.36%	0.27%

12 Appendix 5: Survey Results

The figures below show that across the 4 TCSF main categories, the majority of survey respondents reported they understand and perceive importance of the TCSF quite well. Perceptions on the value of the minimum standards were also consistently positive, while perceptions of capability were somewhat lower. The results of Phase 2 were also examined by the demographic variables of gender, qualification, school system, teacher type, and region, as outlined below.

12.1 Gender

Across the 4 TCSF Domains and indicators, both genders report high levels of understanding, perceived importance, perceived capability, and perceived value of the minimum requirements. There was no significant differences on the basis of gender.
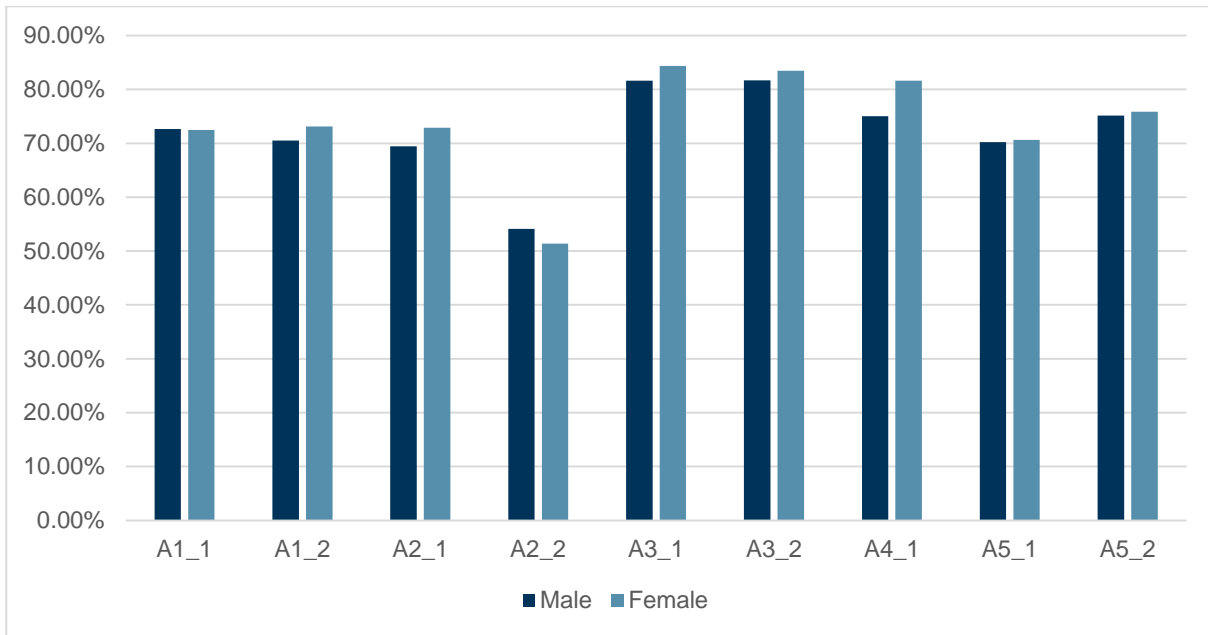
Figure 6: Gender Differences: Domain A

The figure above shows that gender differences in understanding of the TCSF Domain A are not significant. Analysis of female data returned a mean score of 74, while for men, a mean score of 72 is reported.
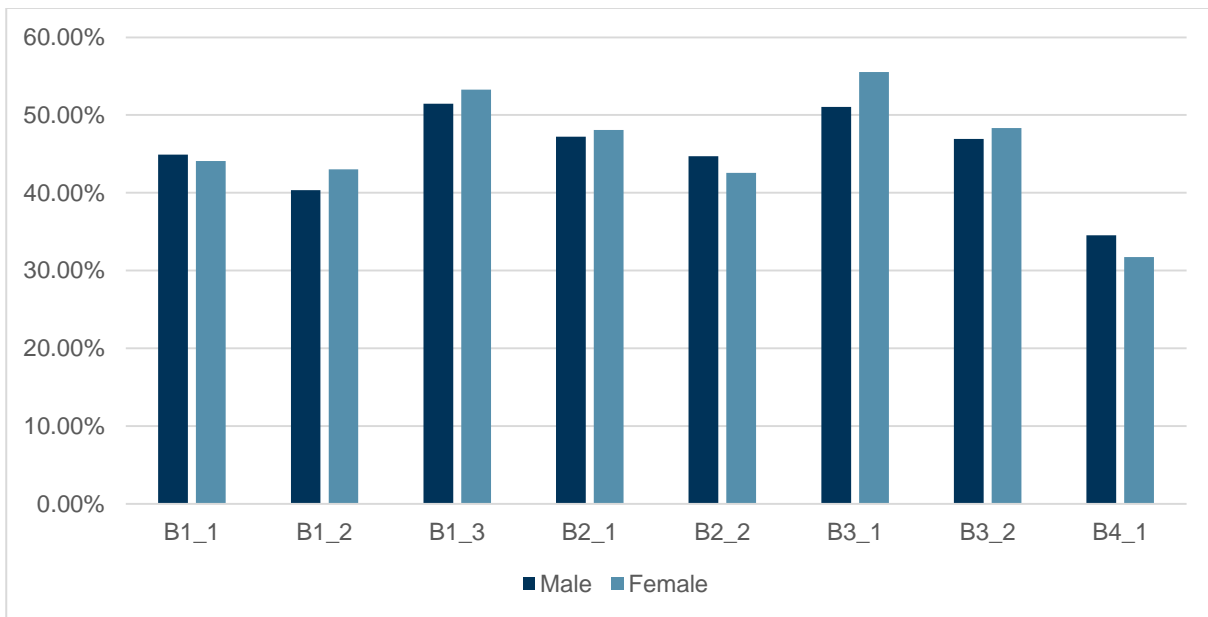
Figure 7: Gender Differences: Domain B

The figure above shows that gender differences in understanding of the TCSF Domain B are not significant. Analysis of female data returned a mean score of 81, while for men, a mean score of 79 is reported.
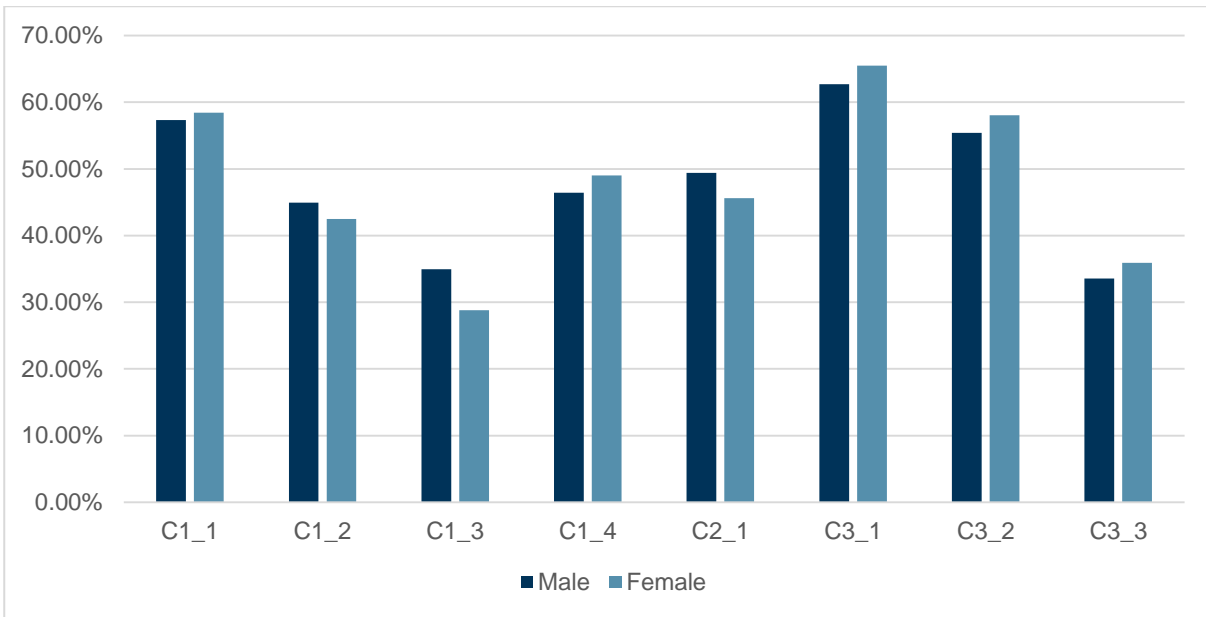
Figure 8: Gender Differences: Domain C

The figure above shows that gender differences in understanding of the TCSF Domain C are not significant. Analysis of female data returned a mean score of 47, while for men, a mean score of 48 is reported.
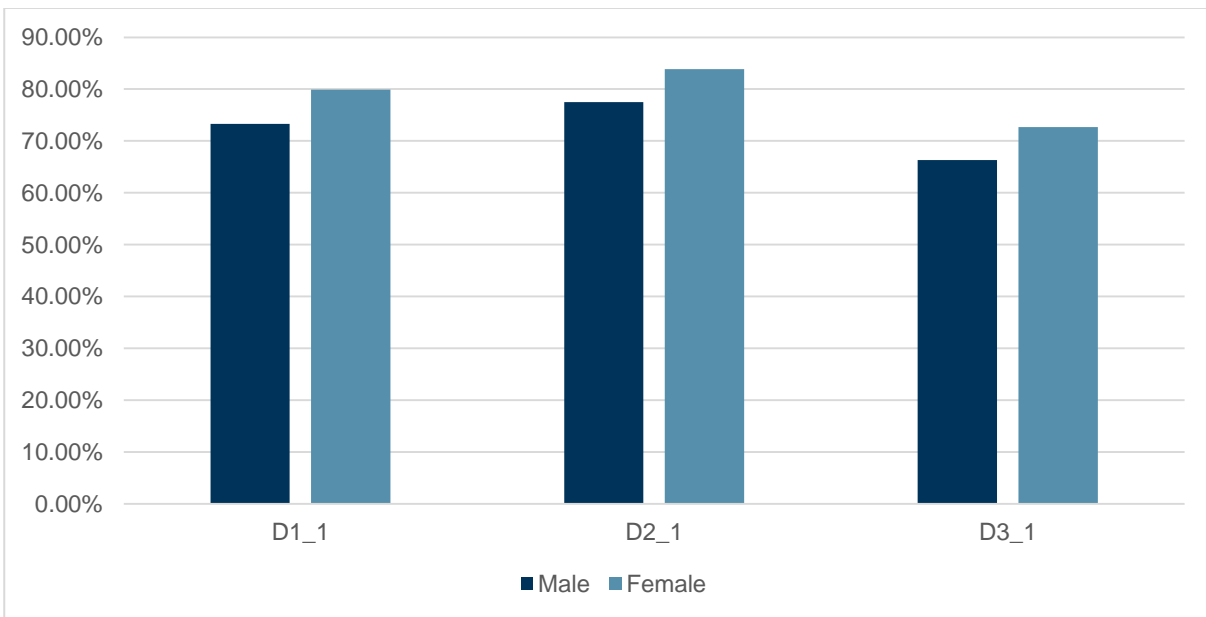
Figure 9: Gender Differences: Domain D

The figure above shows that gender differences in understanding of the TCSF Domain D are not significant. Analysis of female data returned a mean score of 84, while for men, a mean score of 81 is reported.

12.2   Qualification

Across the 4 TCSF Domains and indicators, all qualification levels report high levels of understanding, perceived importance, perceived capability, and perceived value of the minimum requirements. There was no significant differences on the basis of qualification.
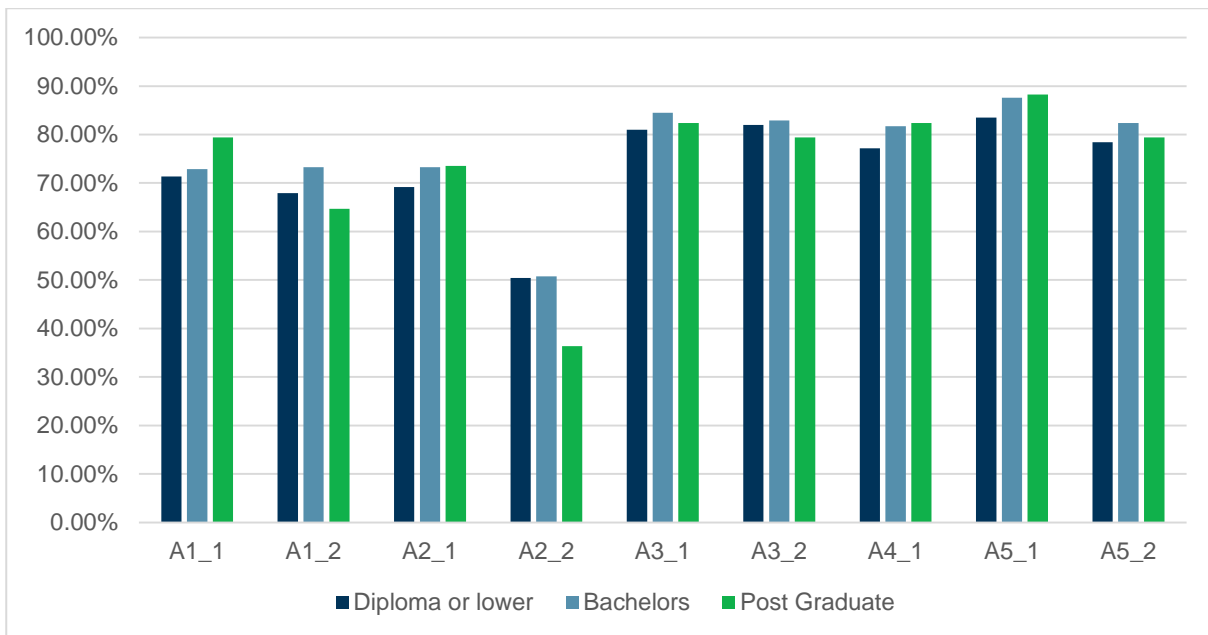
Figure 10: Qualification Differences: Domain A (understanding)

The figure above shows that participants, regardless of qualification, understand the TCSF Domain A quite well.
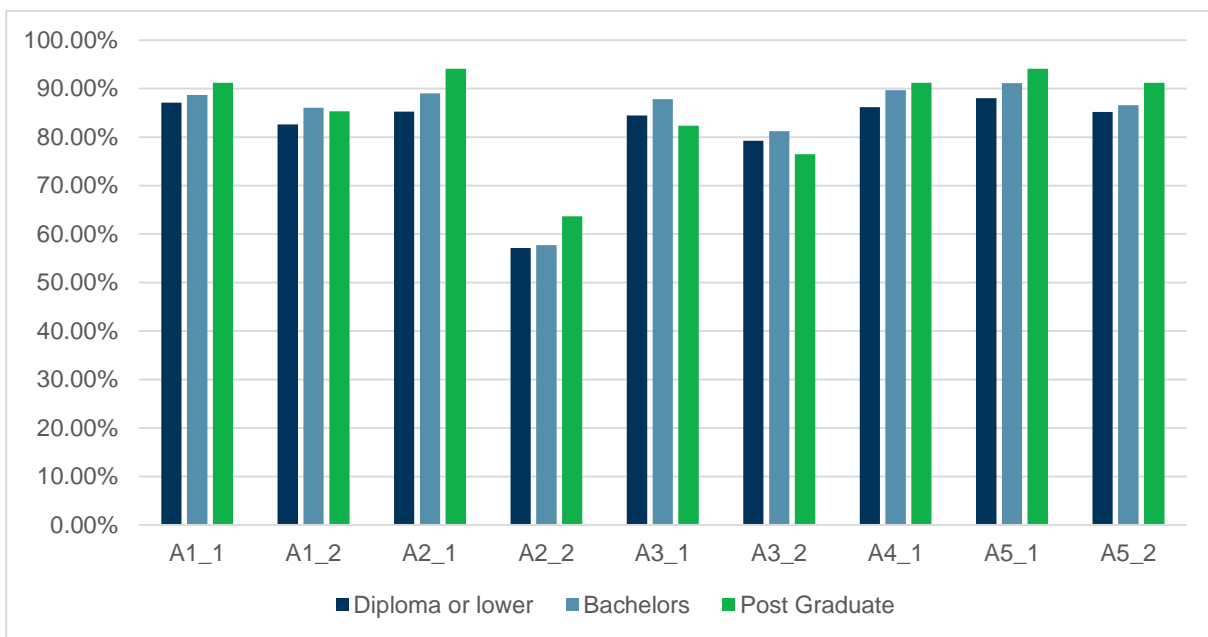
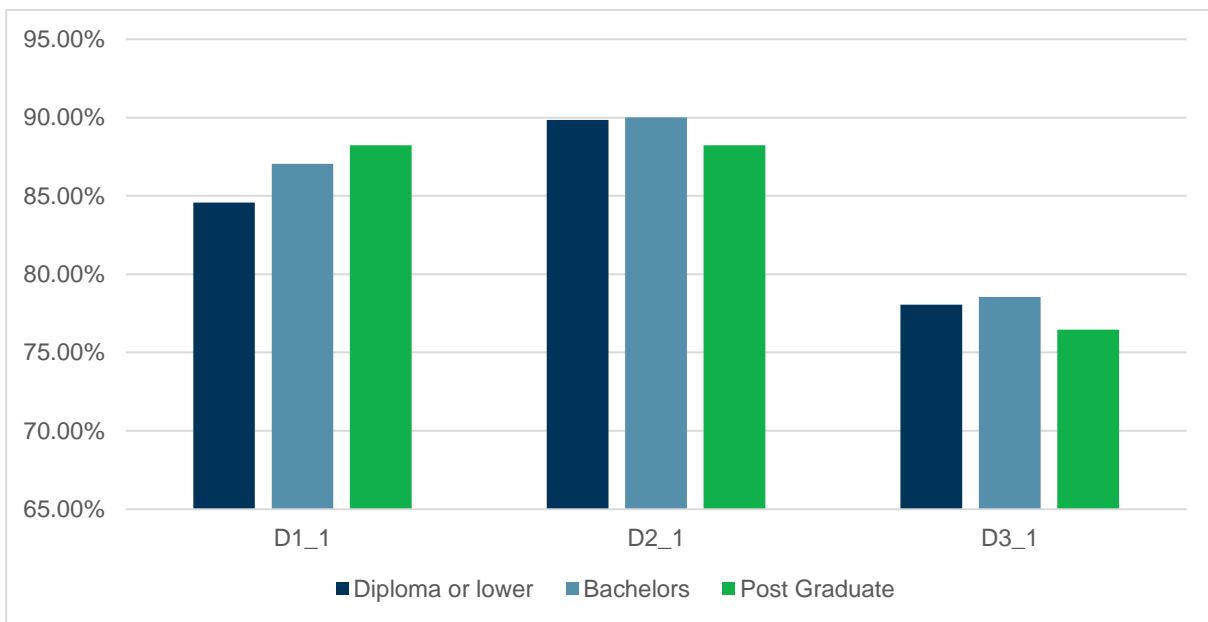**Figure 11: Qualification Differences: Domain A (importance)**

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain A to be important.
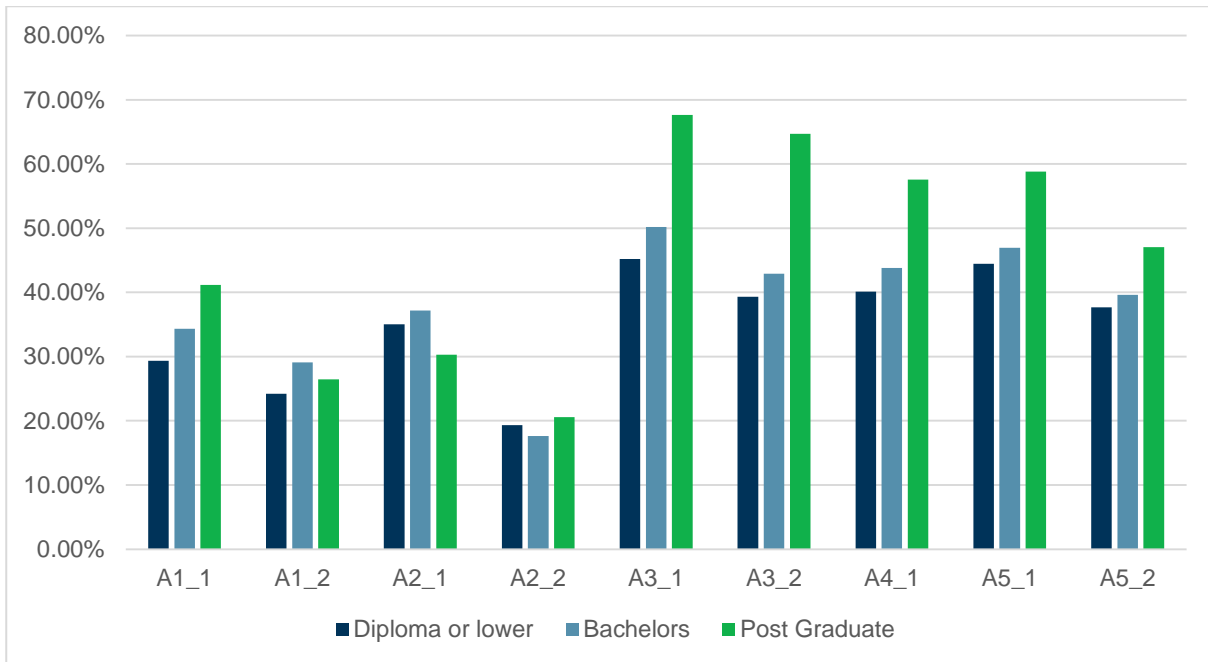
Figure 12: Qualification Differences: Domain A (capability)

The figure above shows that participants, regardless of qualification, show variability in terms of capability on the TCSF Domain A across indicators.
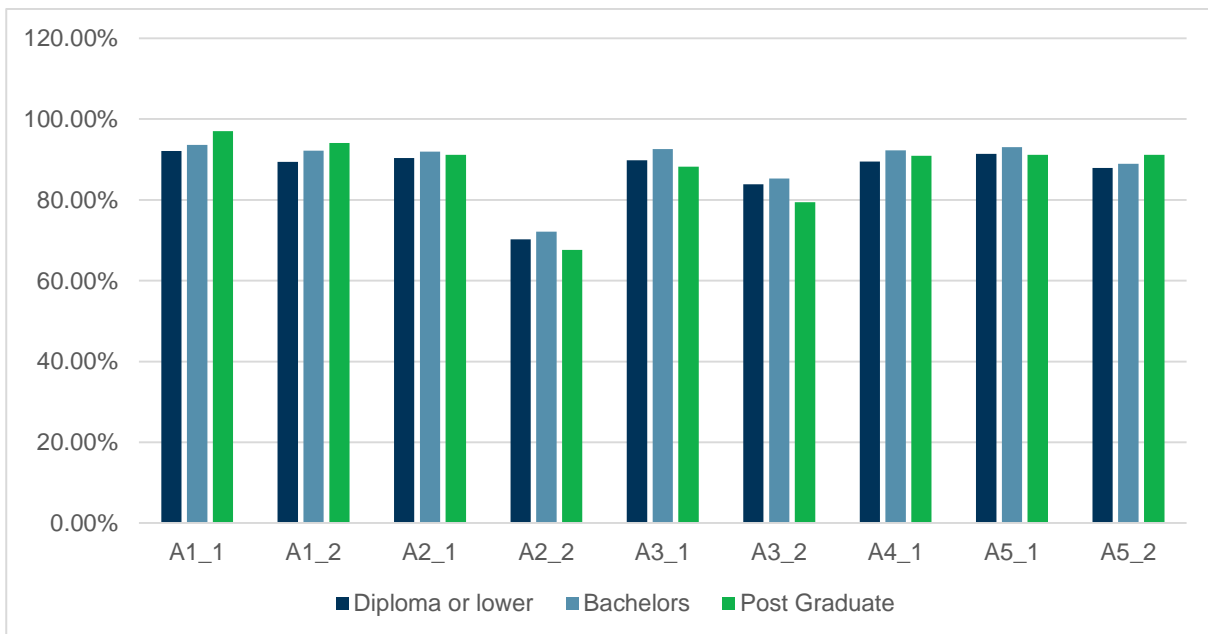
Figure 13: Qualification Differences: Domain A (minimum requirements)

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain A minimum requirements to be important.

Domain B
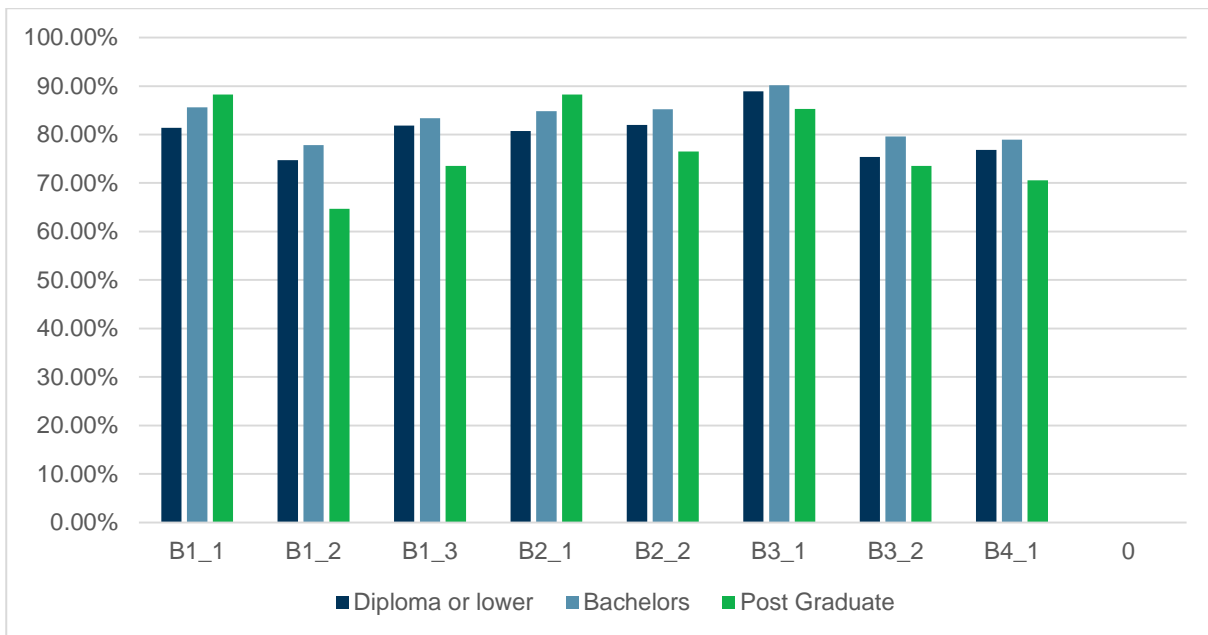
Figure 14: Qualification Differences: Domain B (understanding)

The figure above shows that participants, regardless of qualification, understand the TCSF Domain B quite well.
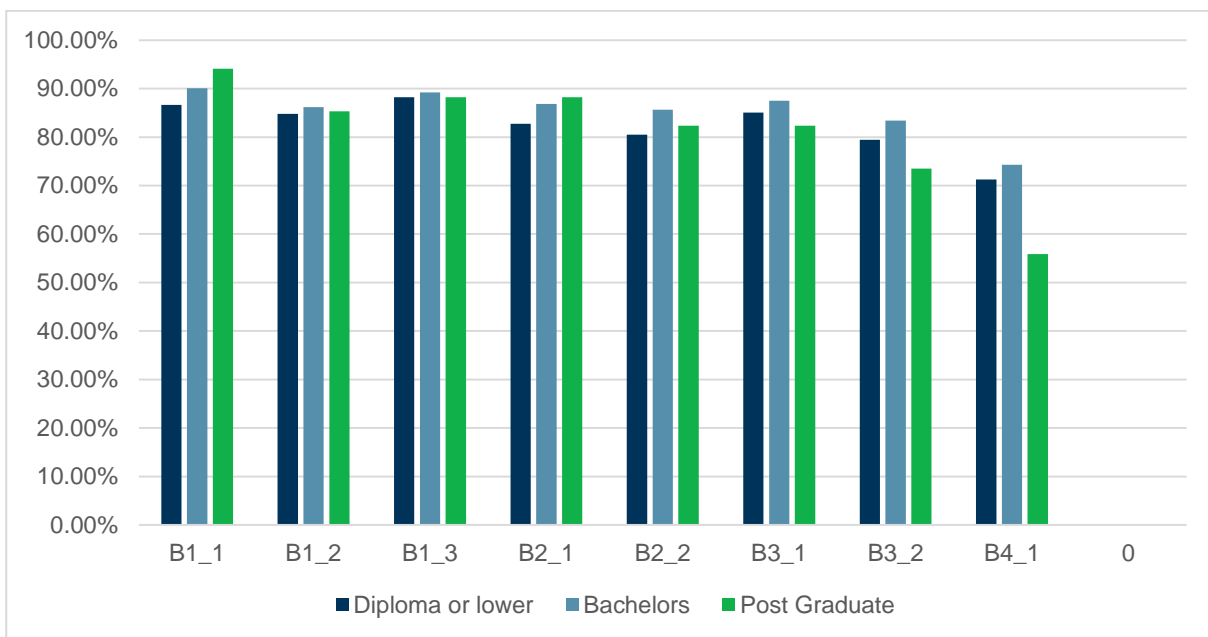
Figure 15: Qualification Differences: Domain B (importance)

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain B to be important.
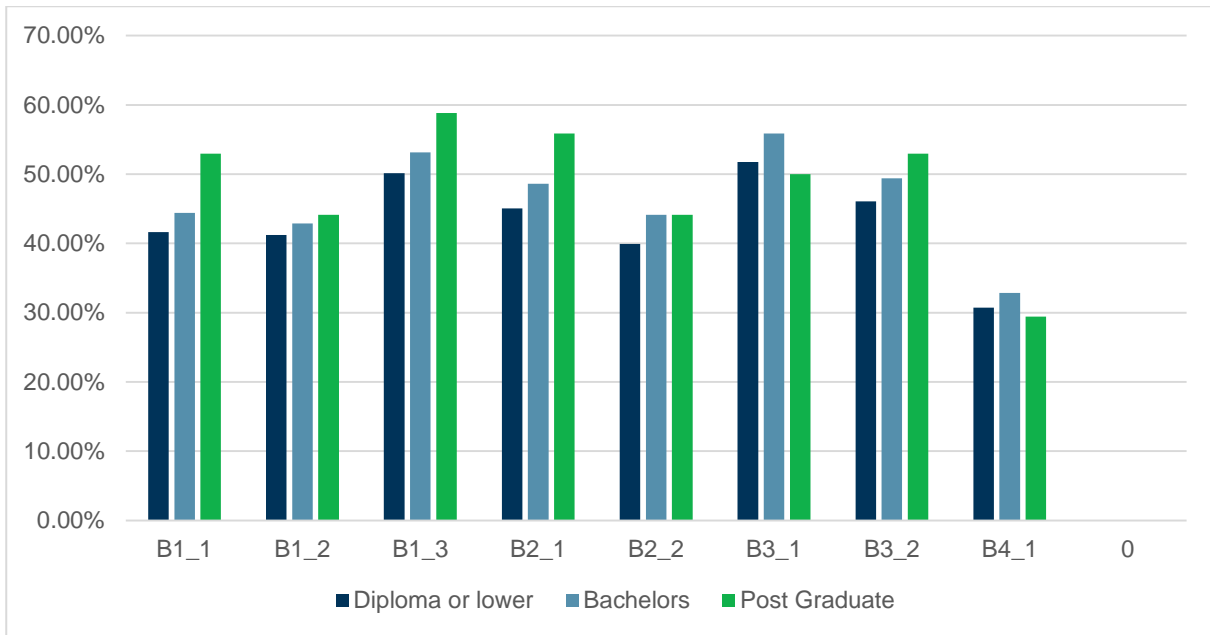
Figure 16: Qualification Differences: Domain B (capability)

The figure above shows that participants, regardless of qualification, show little variability in terms of perceived capability on the TCSF Domain B across all indicators.
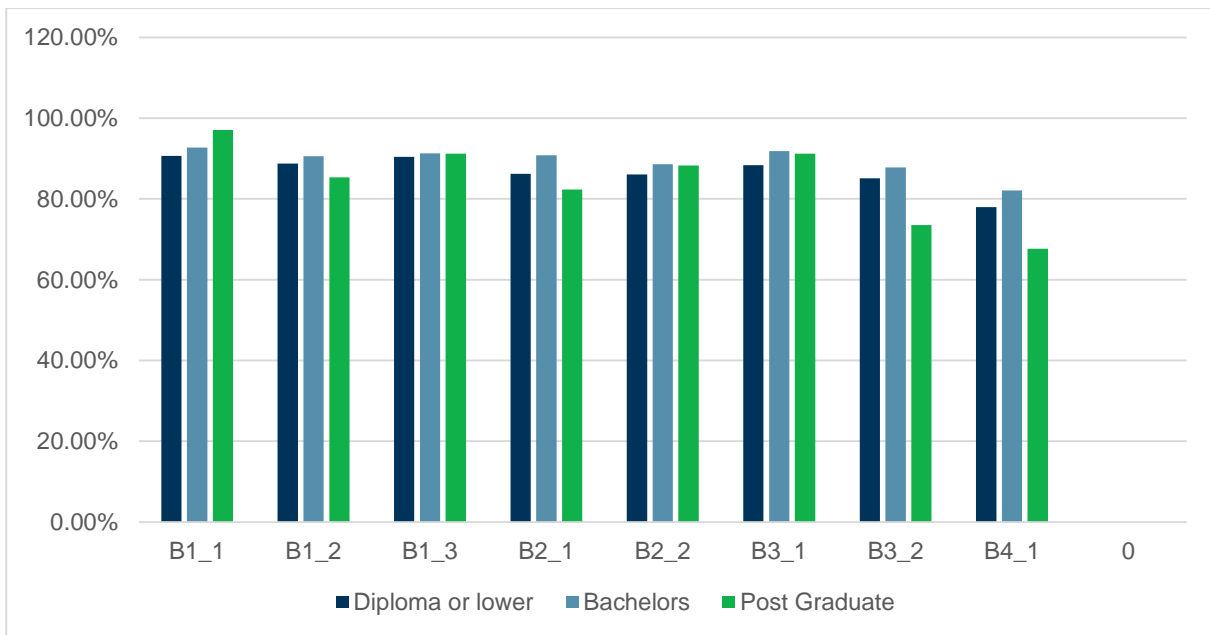
Figure 17: Qualification Differences: Domain B (minimum requirements)

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain B minimum requirements to be important.

Domain C
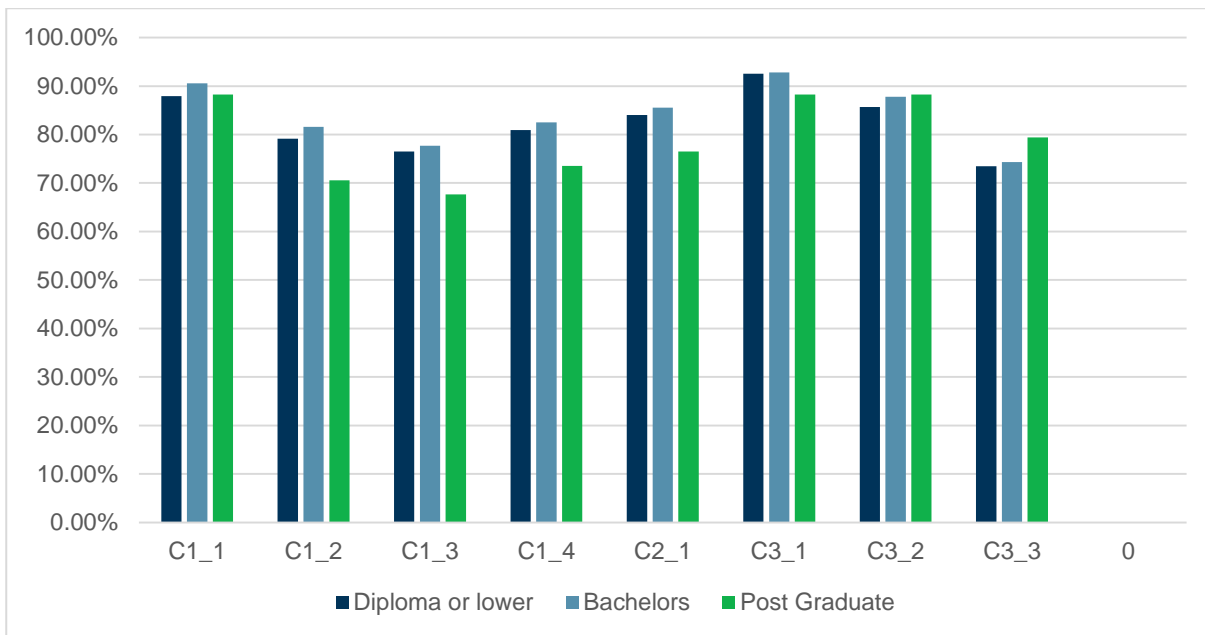
Figure 18: Qualification Differences: Domain C (understanding)

The figure above shows that participants, regardless of qualification, understand the TCSF Domain C quite well.
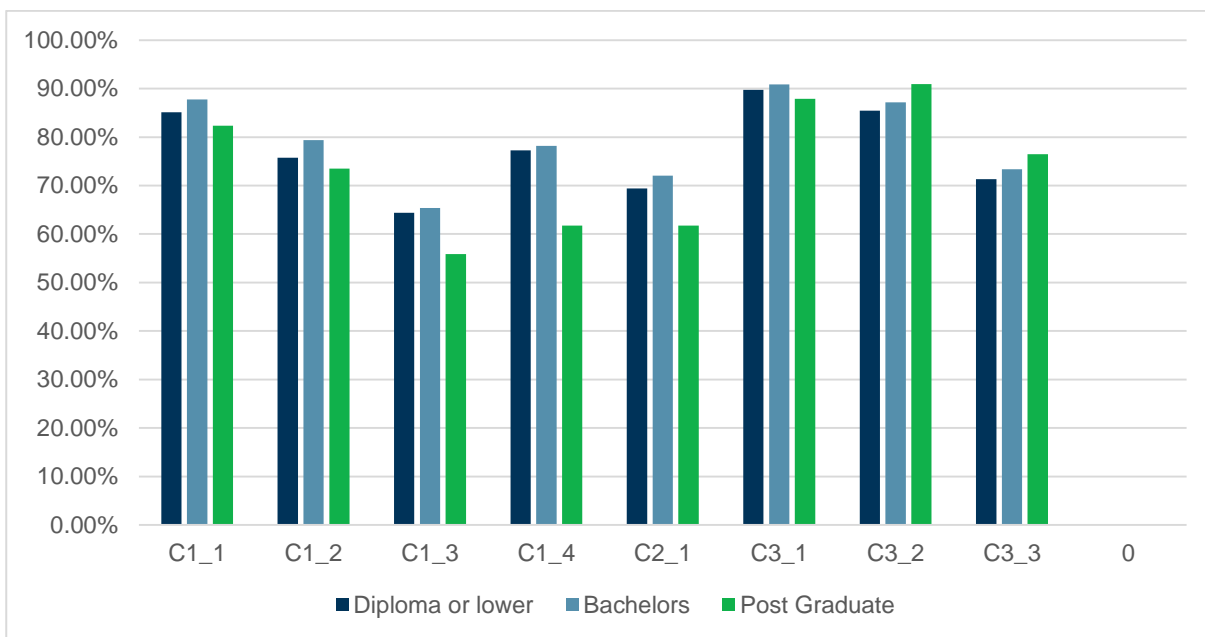
Figure 19: Qualification Differences: Domain C (understanding)

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain C to be important.
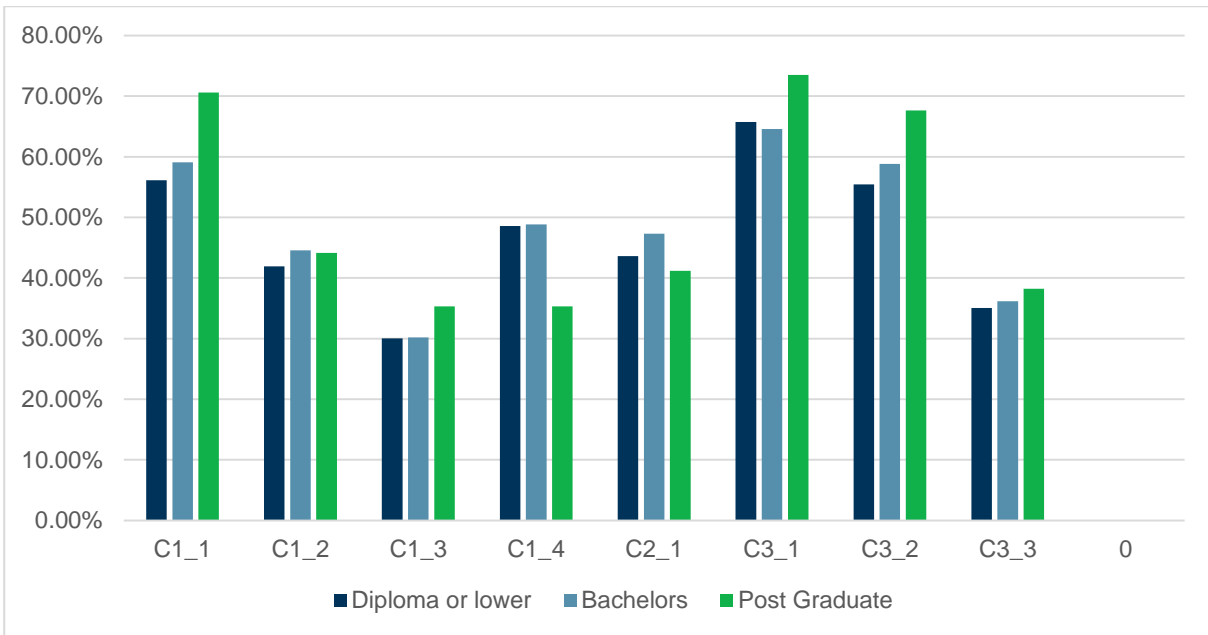
Figure 20: Qualification Differences: Domain C (capability)

The figure above shows that participants, regardless of qualification, show little variability in terms of perceived capability on the TCSF Domain C across all indicators.
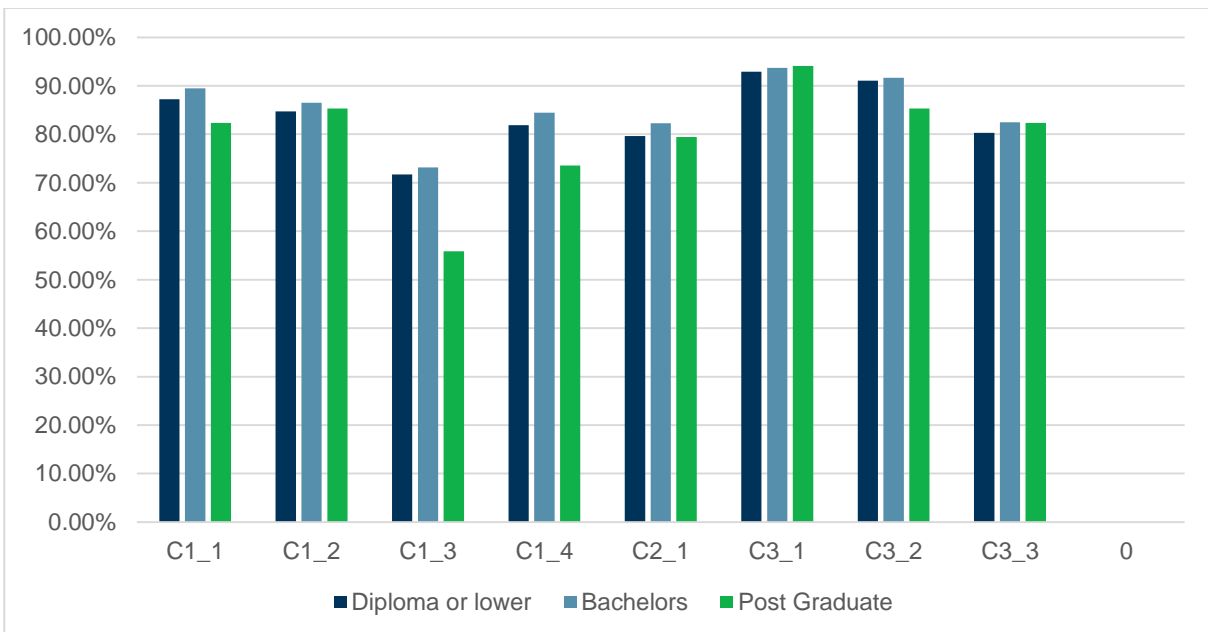
Figure 21: Qualification Differences: Domain C (minimum requirements).

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain C minimum requirements to be important.
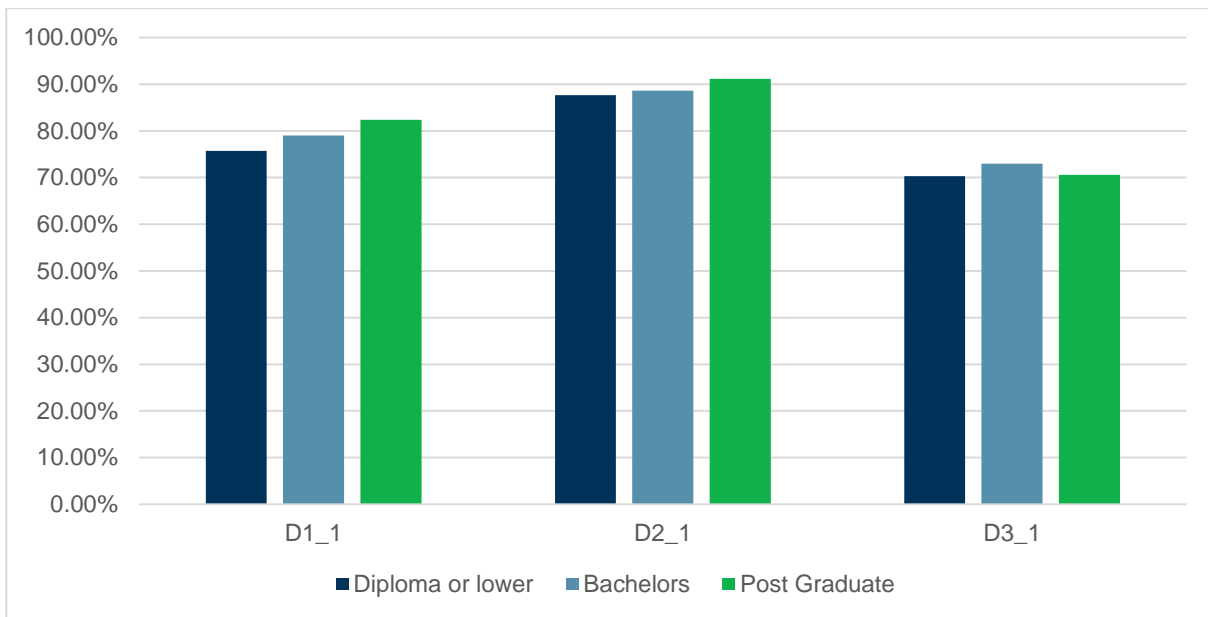
Figure 22: Qualification Differences: Domain D (understanding)

The figure above shows that participants, regardless of qualification, understand the TCSF Domain D quite well.
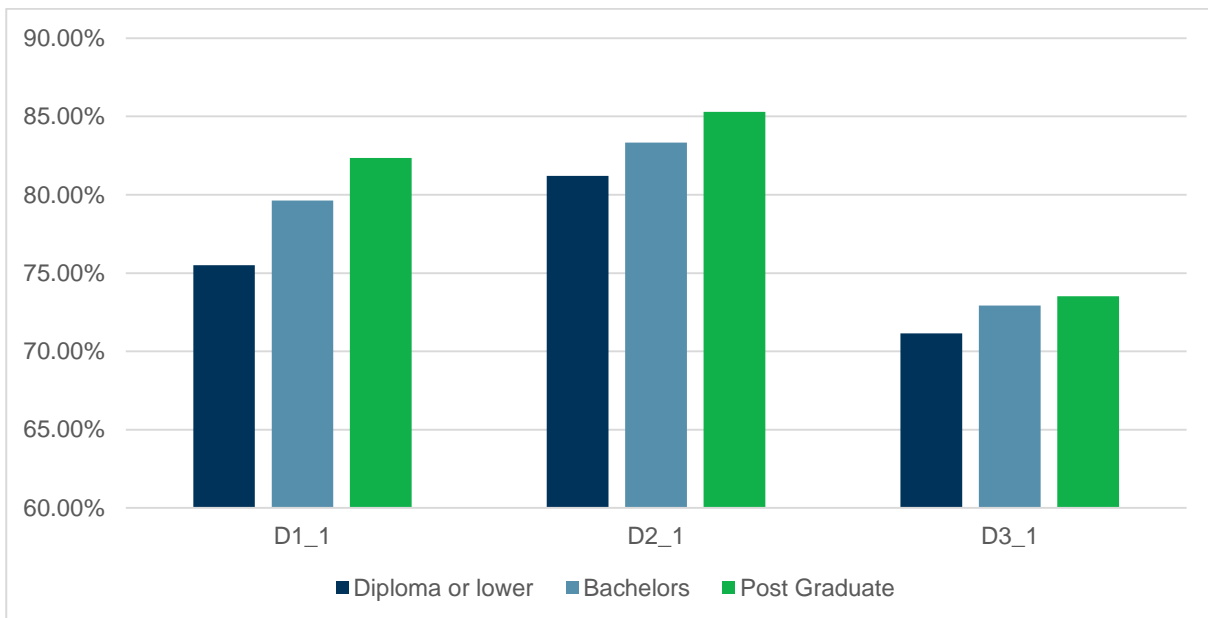
Figure 23: Qualification Differences: Domain D (importance)

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain D to be important.
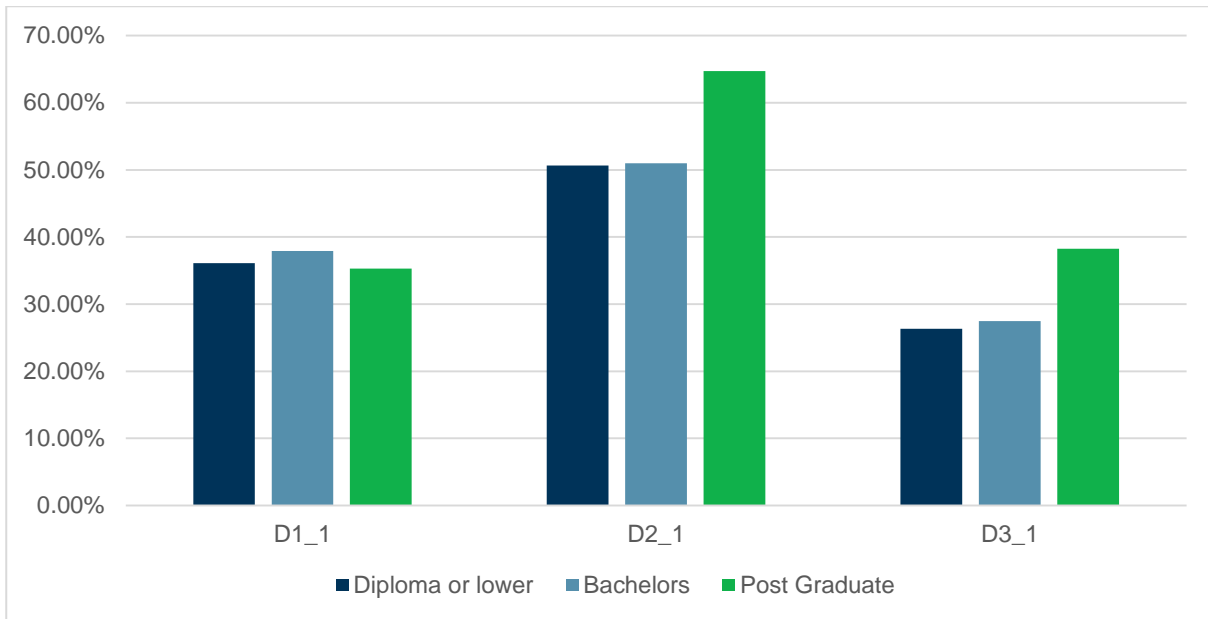
Figure 24: Qualification Differences: Domain D (capability)

The figure above shows that participants, regardless of qualification, show little variability in terms of perceived capability on the TCSF Domain D across all indicators.

Figure 25: Qualification Differences: Domain D (minimum requirements)

The figure above shows that participants, regardless of qualification, perceive the TCSF Domain D minimum requirements to be important.

12.3   School System

Across the 4 TCSF Domains and indicators, all schools systems report high levels of understanding, perceived importance, perceived capability, and perceived value of the minimum requirements. Education colleges returned more positive results across the areas of exploration, while religious schools report slightly lower perceptions of capability and perceived value of the TCSF minimum requirements.
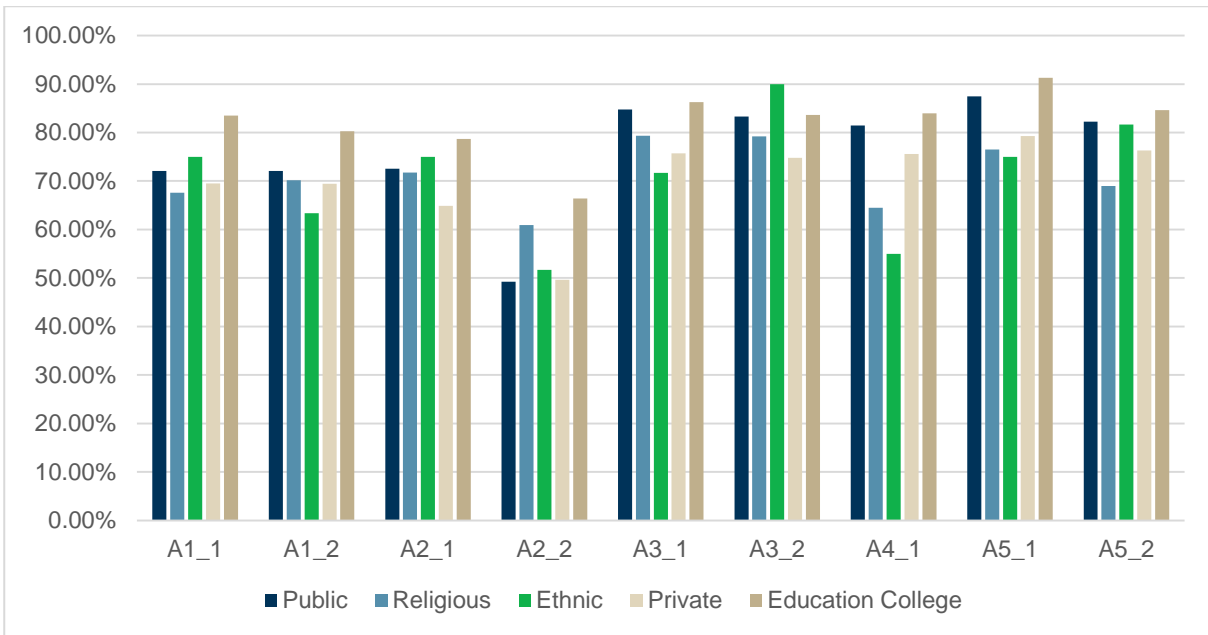
Figure 26: School system Differences: Domain A (understanding)

As shown in the figure above, understanding of the TCSF Domain A does not vary significantly across school systems. (Public M=76; Religious M=71; Ethnic M=71; Private M=71; Education College M=82).
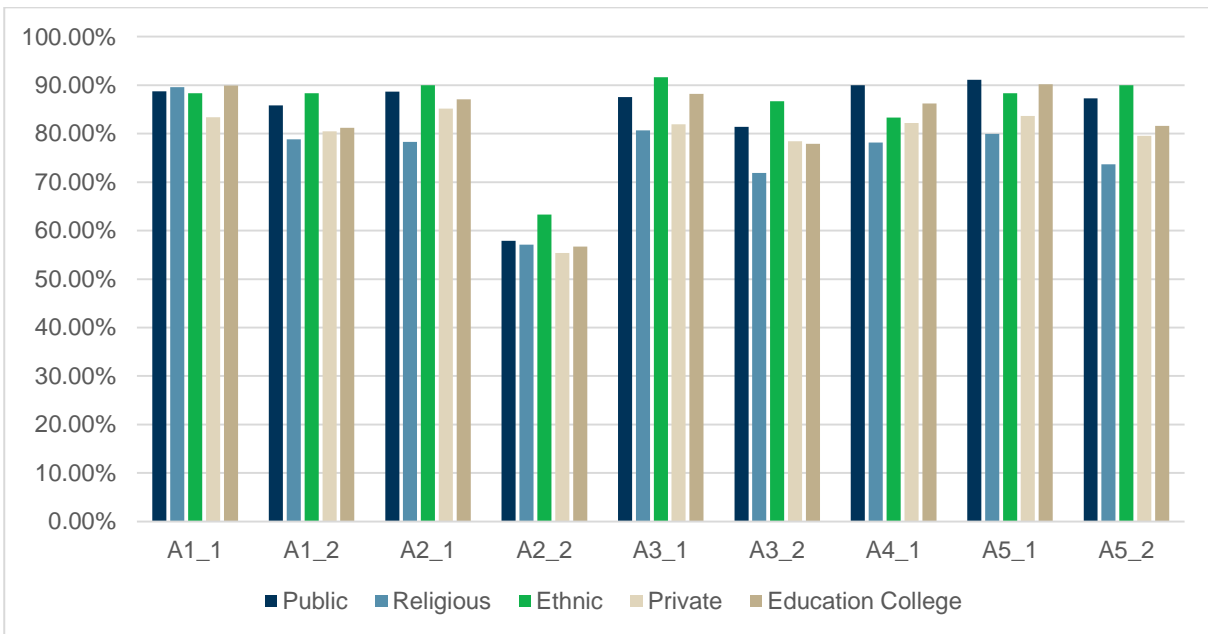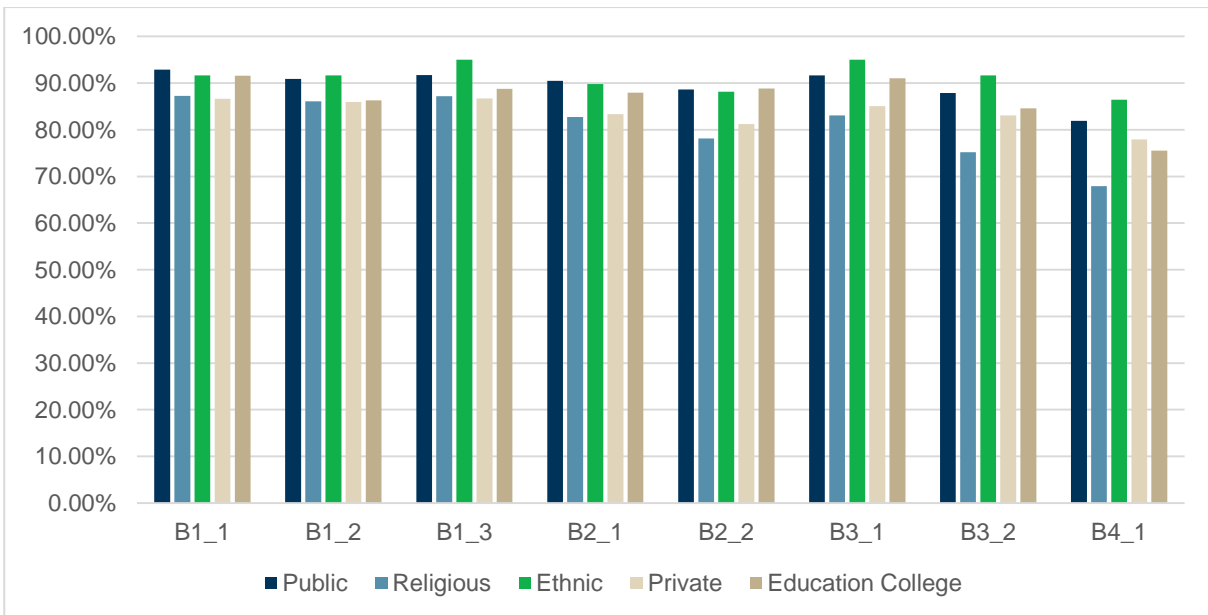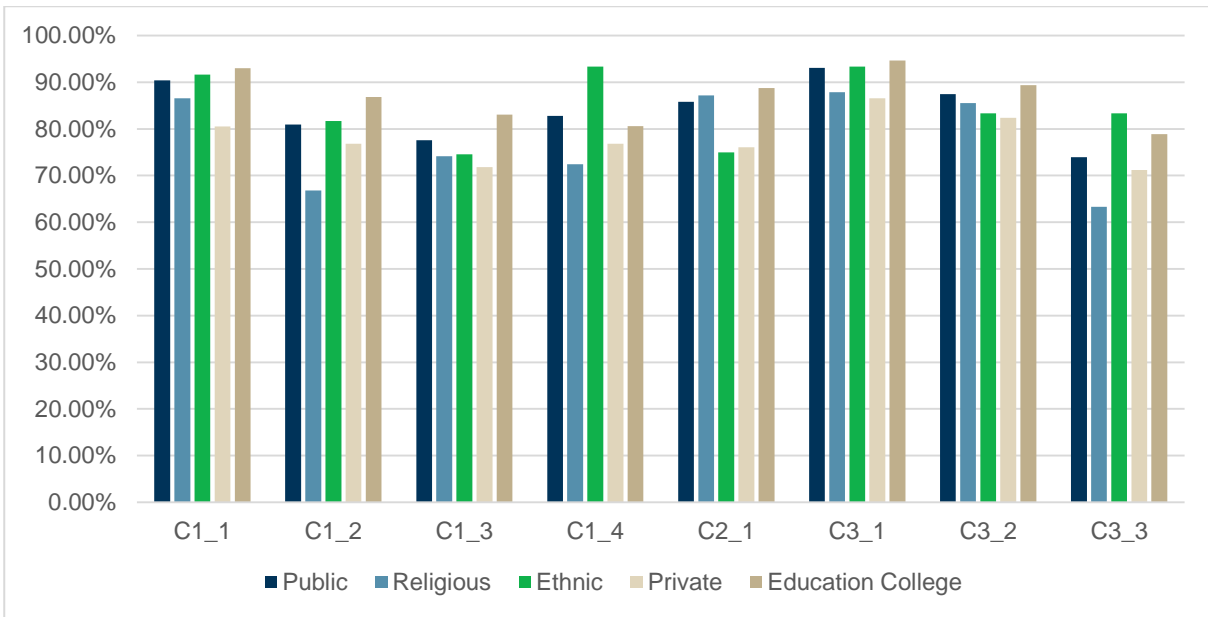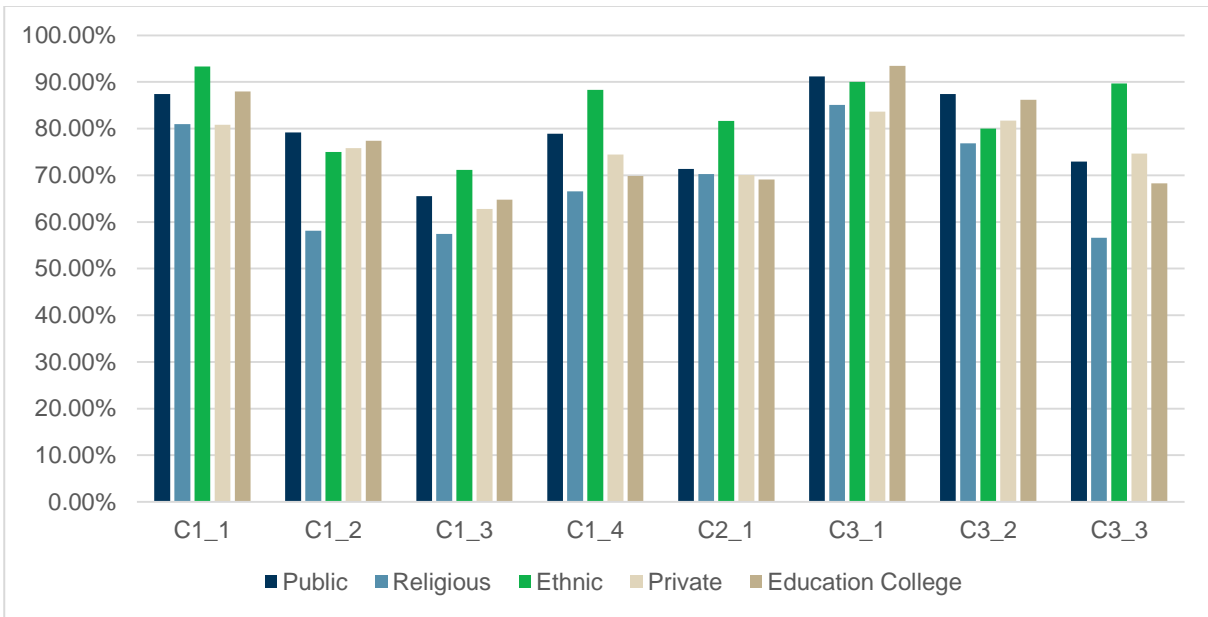

Figure 27: School system Differences: Domain A (importance)

As shown in the figure above, perceived importance of the TCSF Domain A does not vary significantly across school systems. (Public M=84; Religious M=76; Ethnic M=86; Private M=79; Education College M=82).
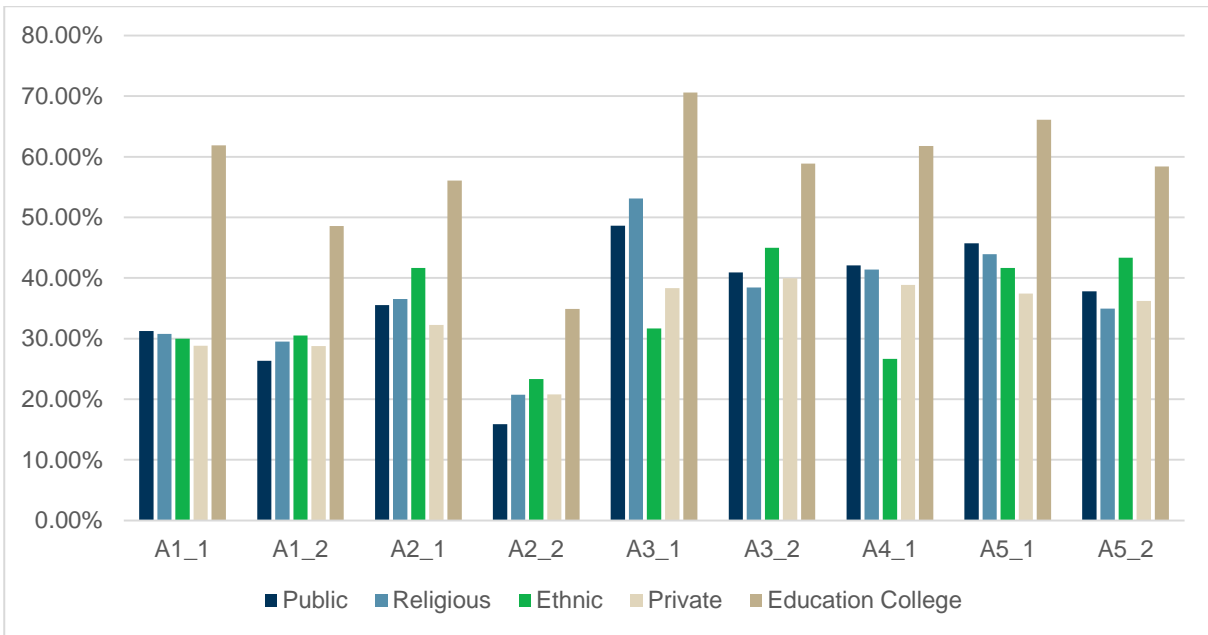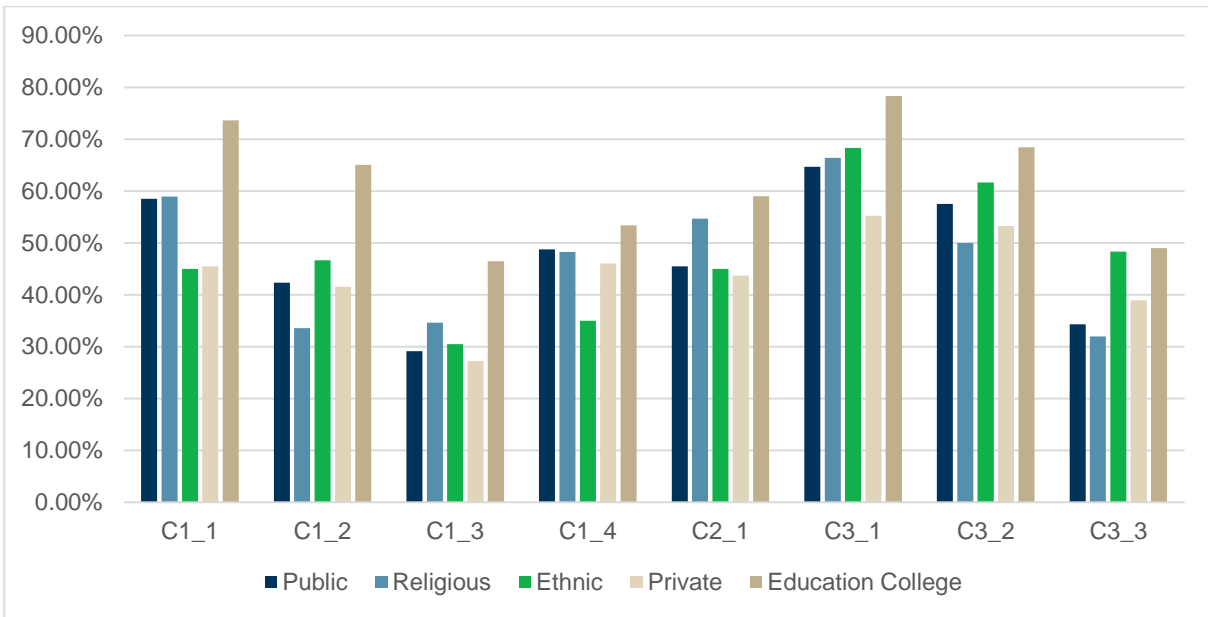
Figure 28: School system Differences: Domain A (capability)

As demonstrated in the figure above, Education Colleges report the highest levels of perceived capability in relation to the TCSF Domain A (M=57). There was little variance across other education systems. (Public M=36; Religious M=37; Ethnic M=35; Private M=33).
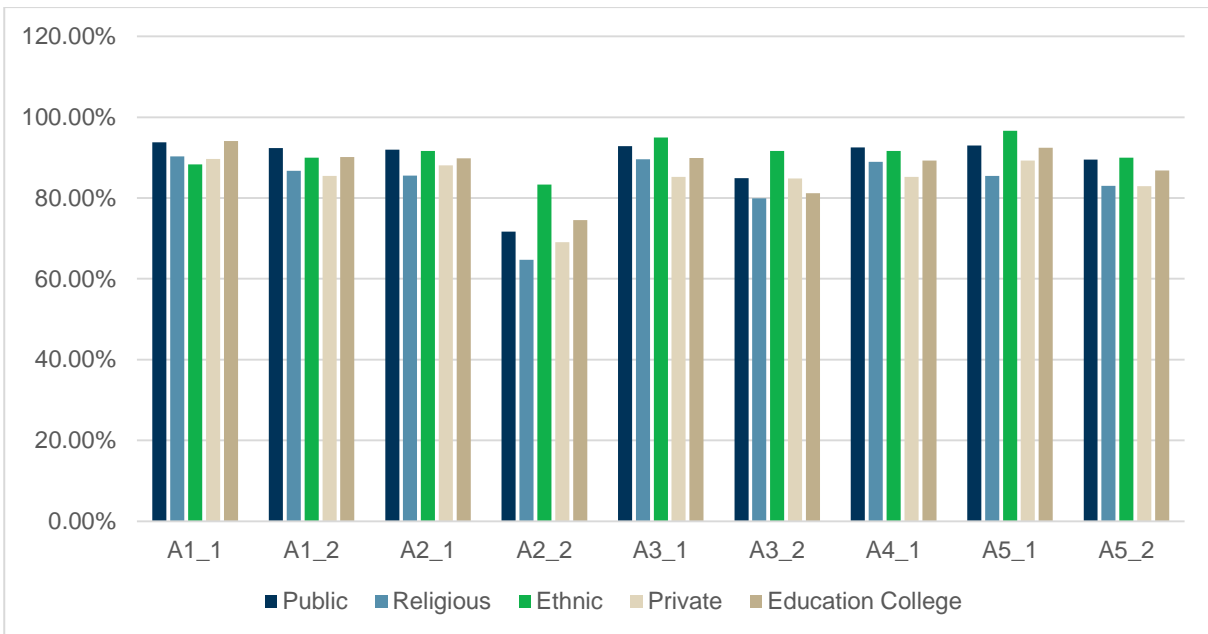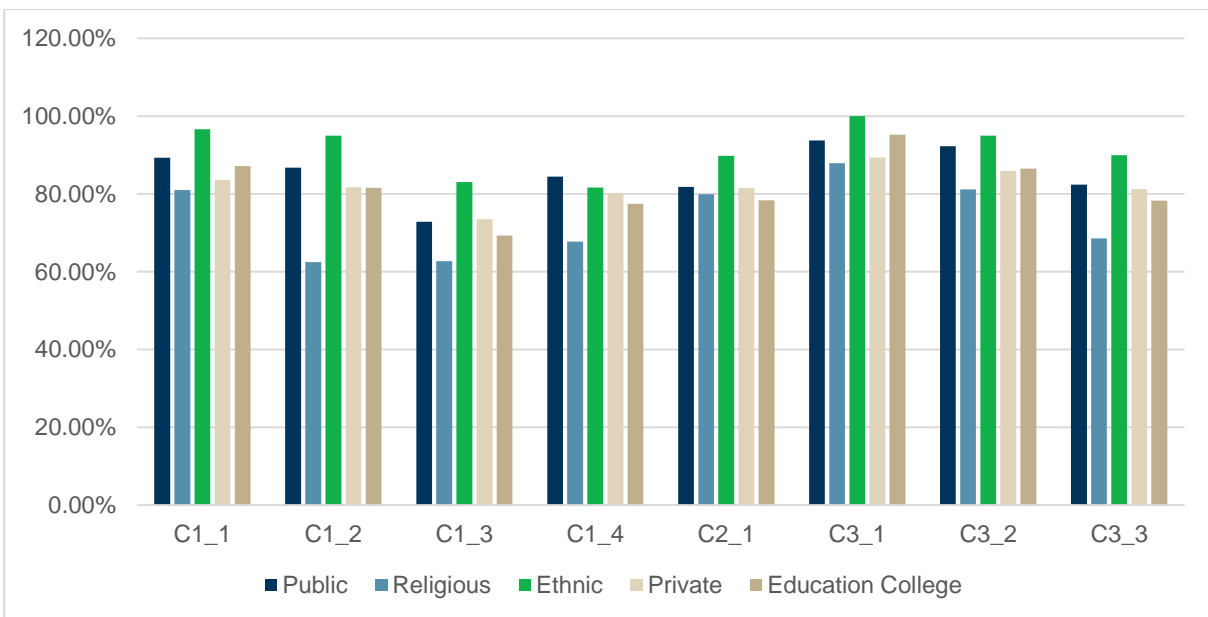

Figure 29: School system Differences: Domain A (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain A minimum standards does not vary significantly across school systems. (Public M=89; Religious M=84; Ethnic M=91; Private M=84; Education College M=88).
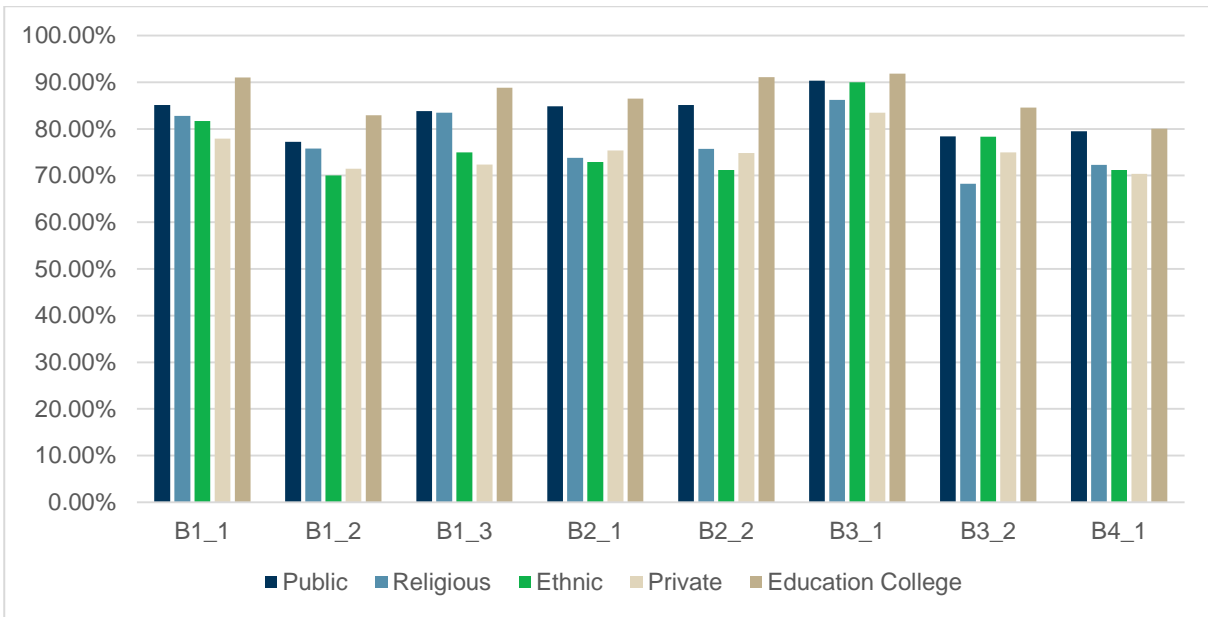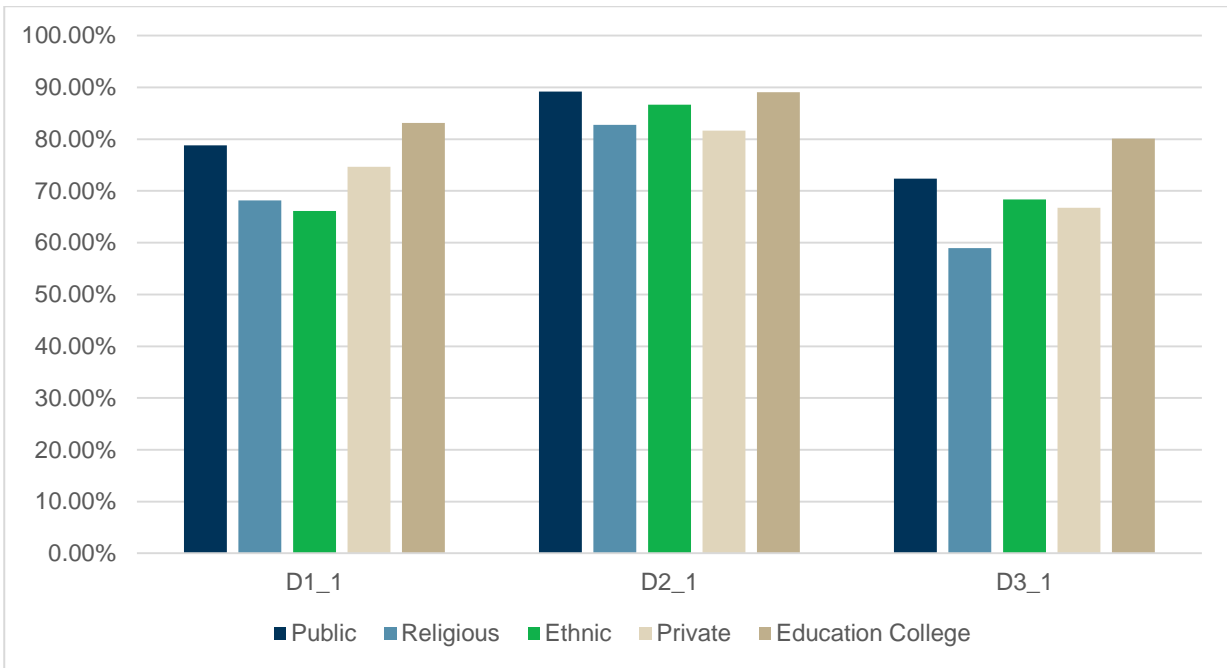
Figure 30: School system Differences: Domain B (understanding)

As shown in the figure above, understanding of the TCSF Domain B does not vary significantly across school systems. (Public M=83; Religious M=77; Ethnic M=76; Private M=75; Education College M=87).
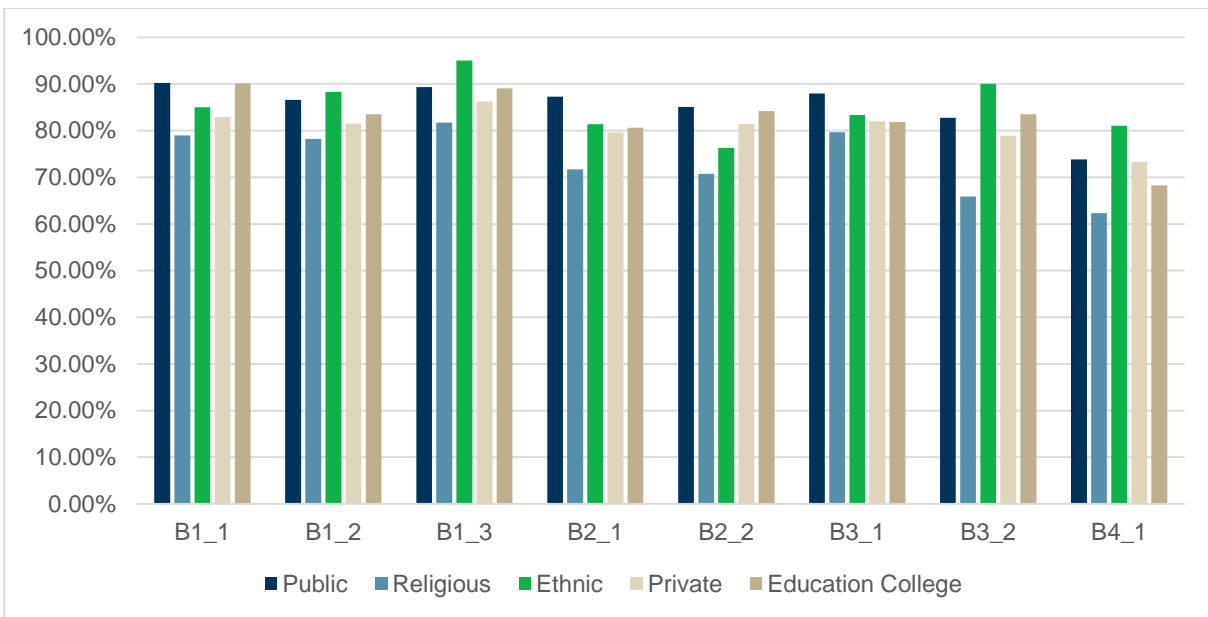
Figure 31: School system Differences: Domain B (importance)

As shown in the figure above, perceived importance of the TCSF Domain B does not vary significantly across school systems. (Public M=85; Religious M=74; Ethnic M=85; Private M=81; Education College M=83).
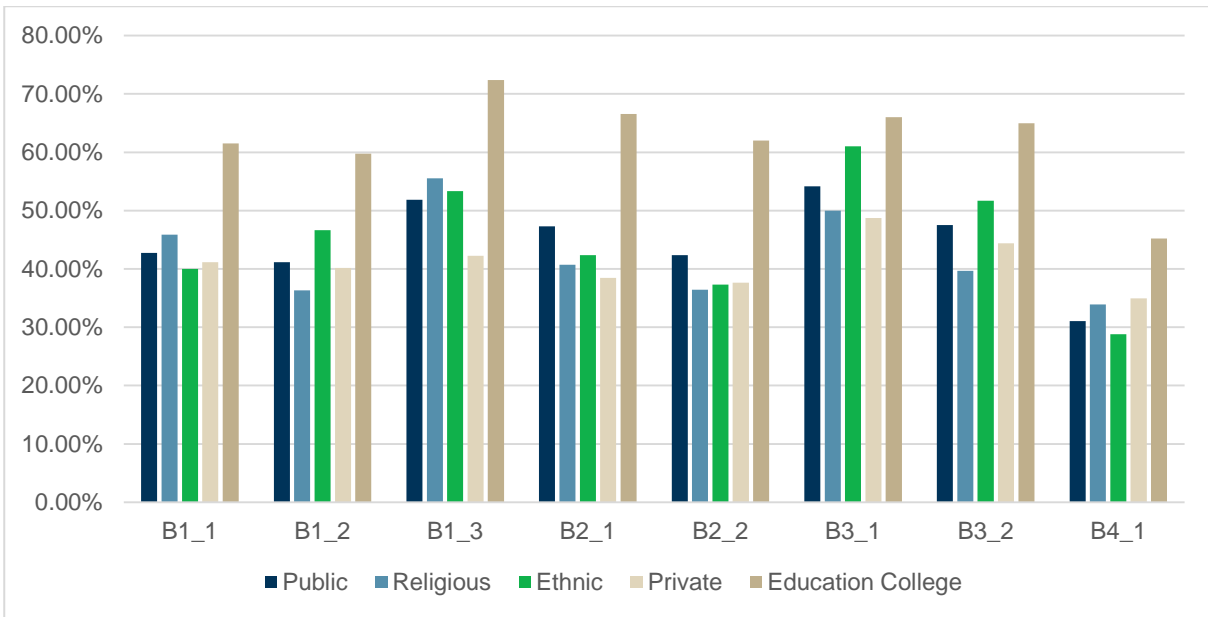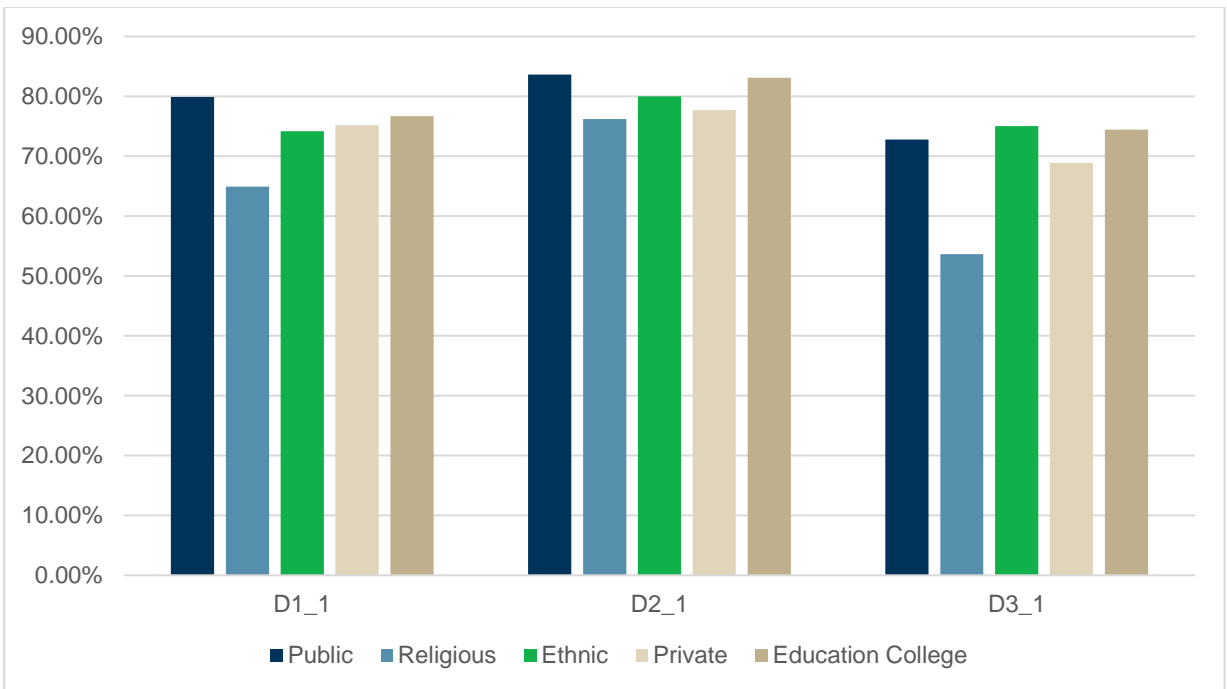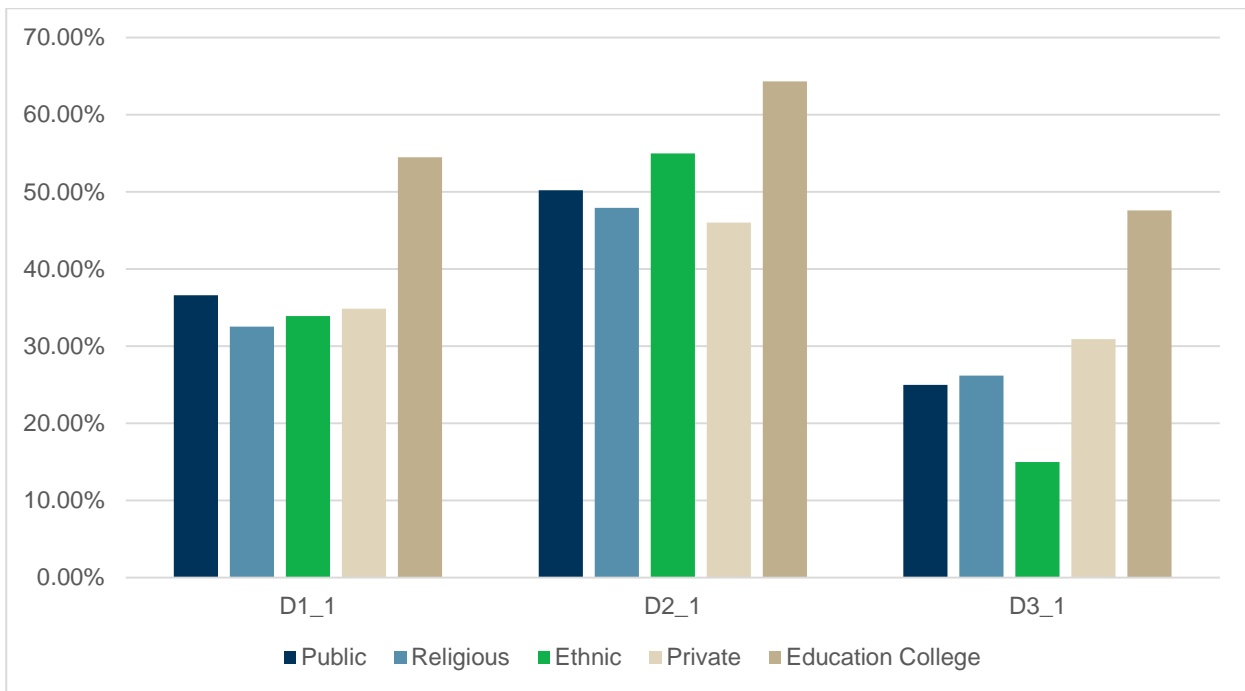
Figure 32: School system Differences: Domain B (capability)

As demonstrated in the figure above, Education Colleges report the highest levels of perceived capability in relation to the TCSF Domain B (M=62). There was little variance across other education systems. (Public M=45; Religious M=42; Ethnic M=45; Private M=41).

Figure 33: School system Differences: Domain B (minimum requirements)

As shown in the figure above, perceived importance of the TCSF Domain B minimum standards does not vary significantly across school systems. (Public M=90; Religious M=81; Ethnic M=91; Private M=84; Education College M=87).

Figure 34: School system Differences: Domain C (understanding)

As shown in the figure above, understanding of the TCSF Domain C does not vary significantly across school systems. (Public M=84; Religious M=78; Ethnic M=85; Private M=78; Education College M=87).

Figure 35: School system Differences: Domain C (importance)

As shown in the figure above, perceived importance of the TCSF Domain C does not vary significantly across school systems. (Public M=79; Religious M=69; Ethnic M=84; Private M=75; Education College M=77).

Figure 36: School system Differences: Domain C (capability)

As demonstrated in the figure above, Education Colleges report the highest levels of perceived capability in relation to the TCSF Domain C (M=62). There was little variance across other education systems. (Public M=45; Religious M=47; Ethnic M=48; Private M=44).
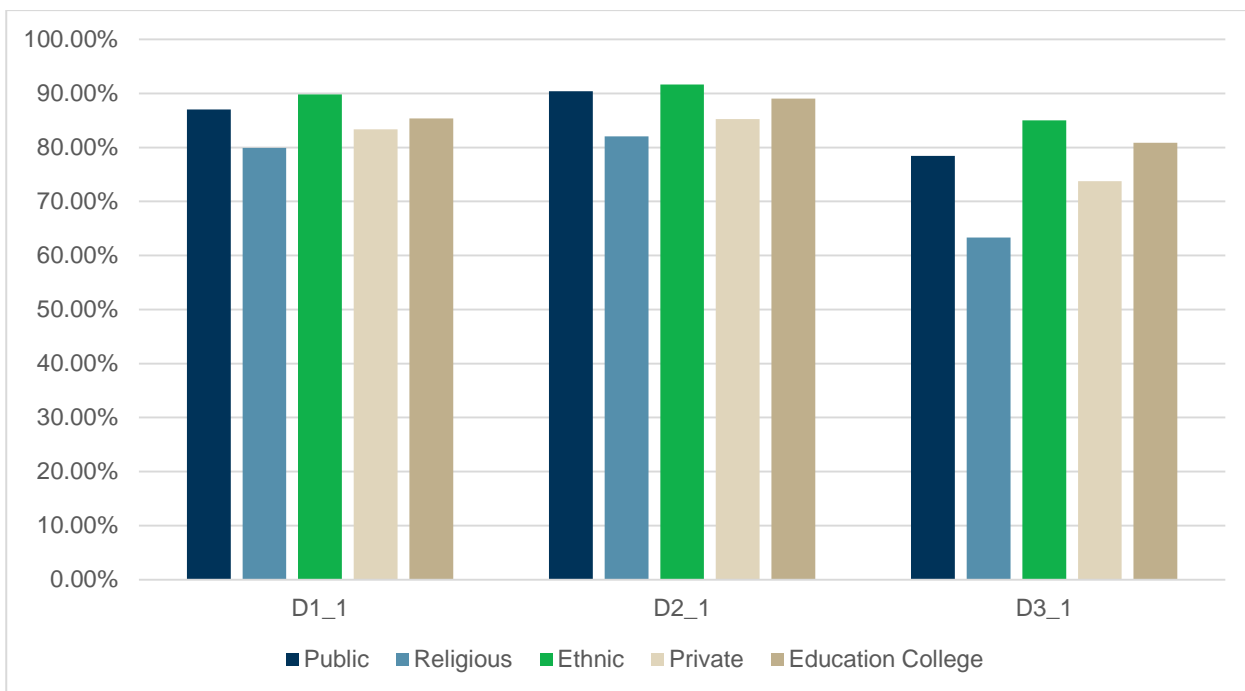

Figure 37: School system Differences: Domain C (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain C minimum standards does not vary significantly across school systems. Across the indicators, religious schools report slightly lower perceptions of importance in regard to the minimum standards (Public M=85; Religious M=74; Ethnic M=91; Private M=82; Education College M=82).

Domain D

Figure 38: School system Differences: Domain D (understanding)

As shown in the figure above, understanding of the TCSF Domain D does not vary significantly across school systems. (Public M=80; Religious M=70; Ethnic M=74; Private M=74; Education College M=84).

Figure 39: School system Differences: Domain D (importance)

As shown in the figure above, perceived importance of the TCSF Domain D minimum standards does not vary significantly across school systems. (Public M=79; Religious M=65; Ethnic M=76; Private M=74; Education College M=78).

Figure 40: School system Differences: Domain D (capability)

As demonstrated in the figure above, Education Colleges report the highest levels of perceived capability in relation to the TCSF Domain D (M=55). There was little variance across other education systems. (Public M=37; Religious M=36; Ethnic M=35; Private M=37).

Figure 41: School system Differences: Domain D (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain D minimum standards does not vary significantly across school systems. Across the indicators, religious schools report slightly lower perceptions of importance in regard to the minimum standards (Public M=85; Religious M=75; Ethnic M=89; Private M=81; Education College M=85).

12.4   Teacher Type

Across the 4 TCSF Domains and indicators, teachers across all levels report high levels of understanding, perceived importance, perceived capability, and perceived value of the minimum requirements.
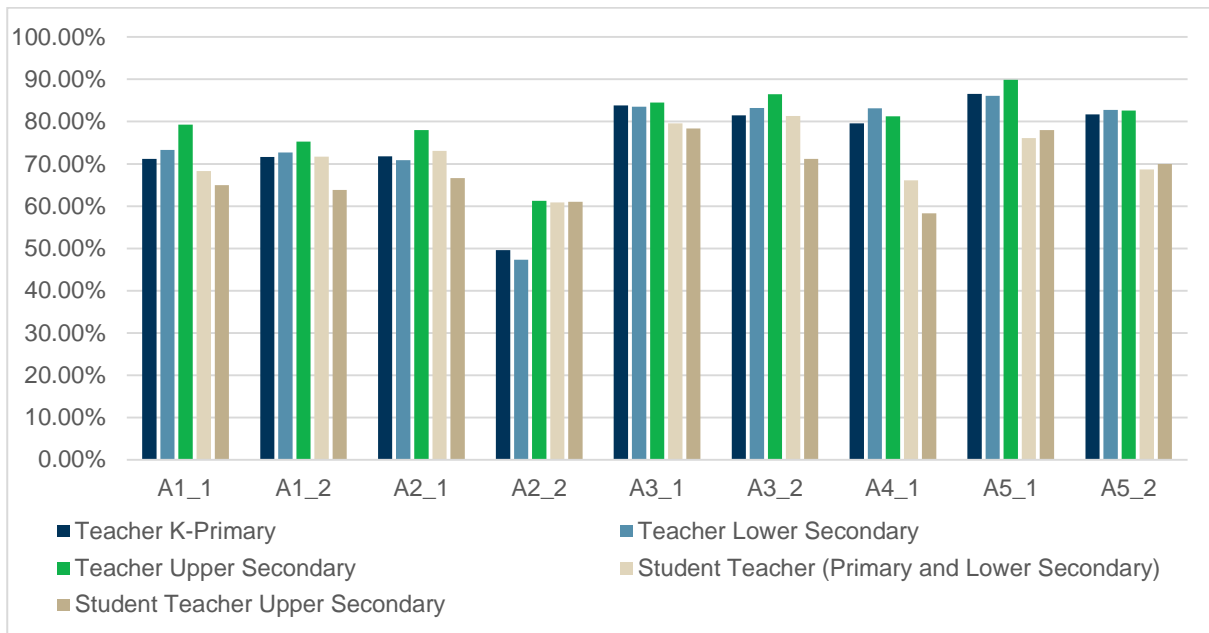
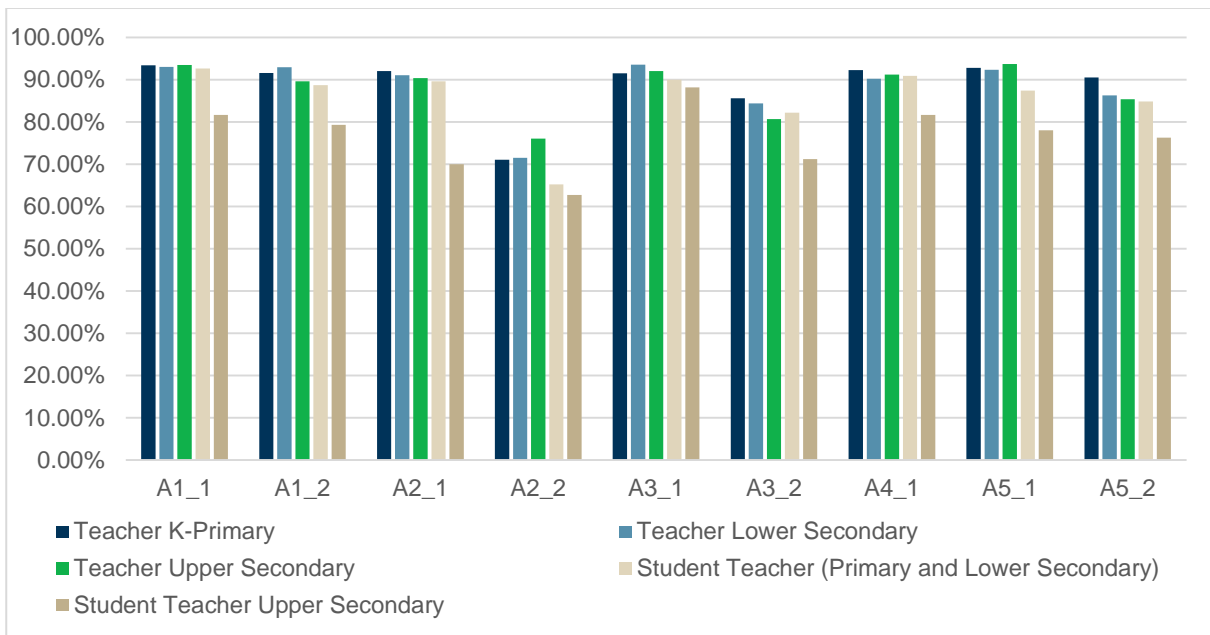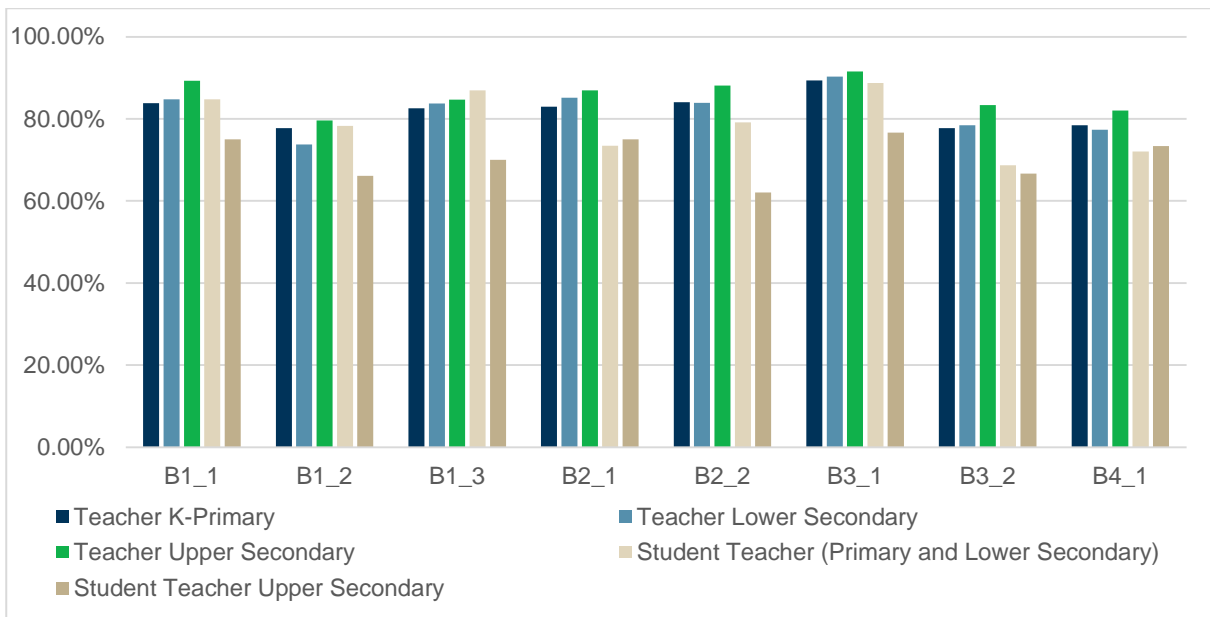**Figure 42: Teacher Type Differences: Domain A (understanding)**

The figure above shows that participants, regardless of year level taught, understand the TCSF Domain A quite well.
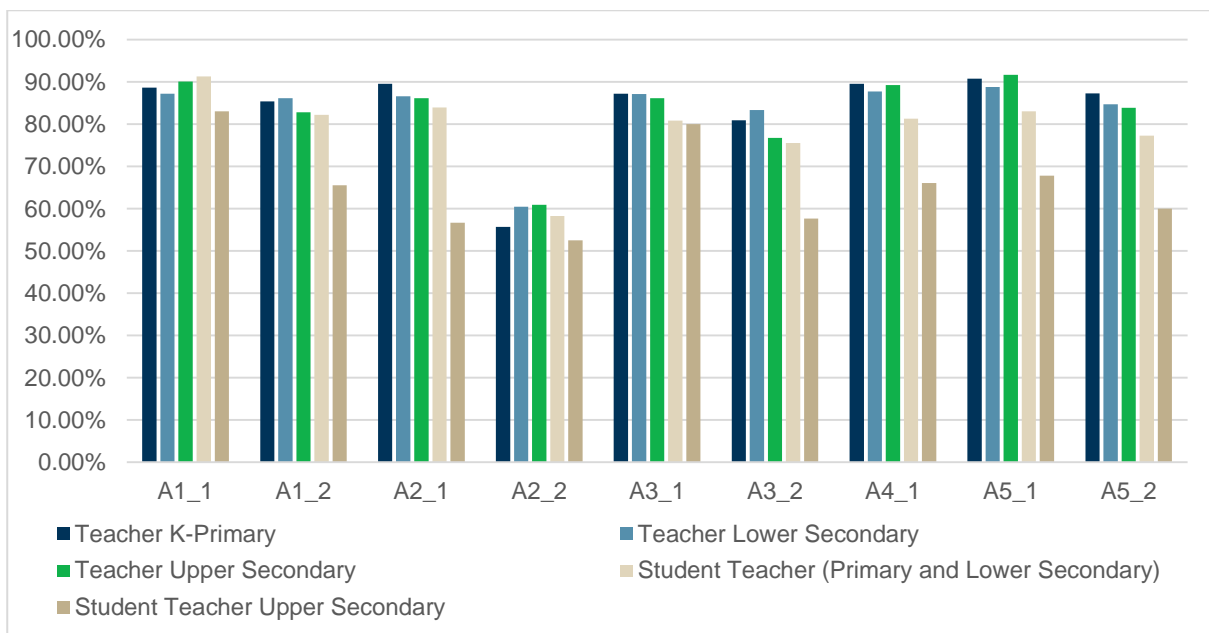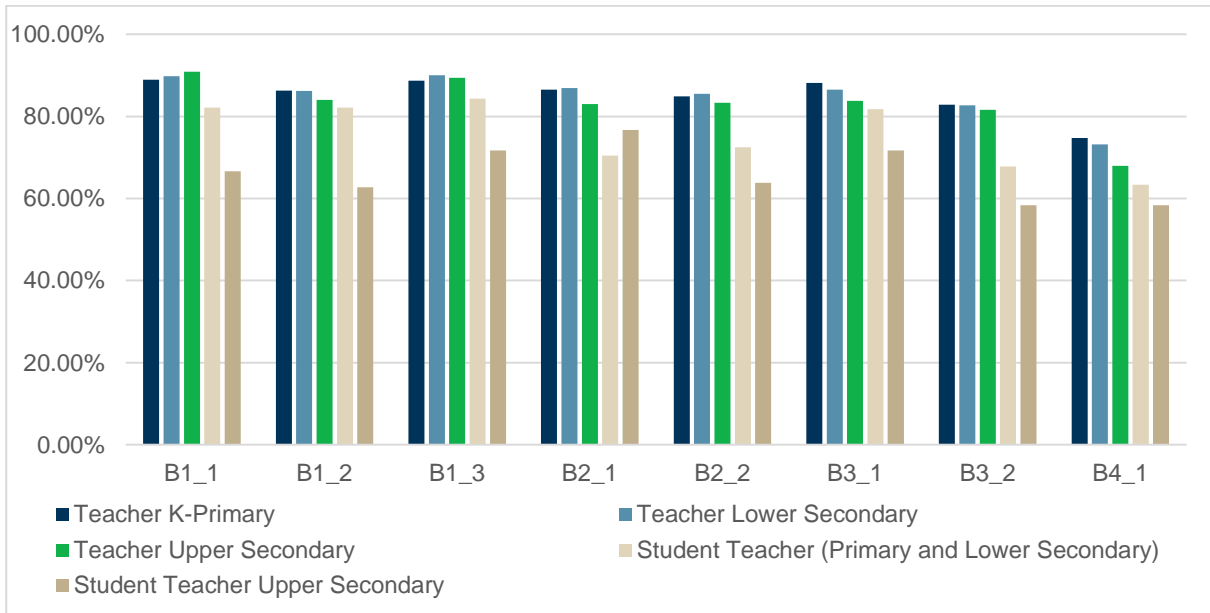

Figure 43: Teacher Type Differences: Domain A (importance)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain A to be quite important.
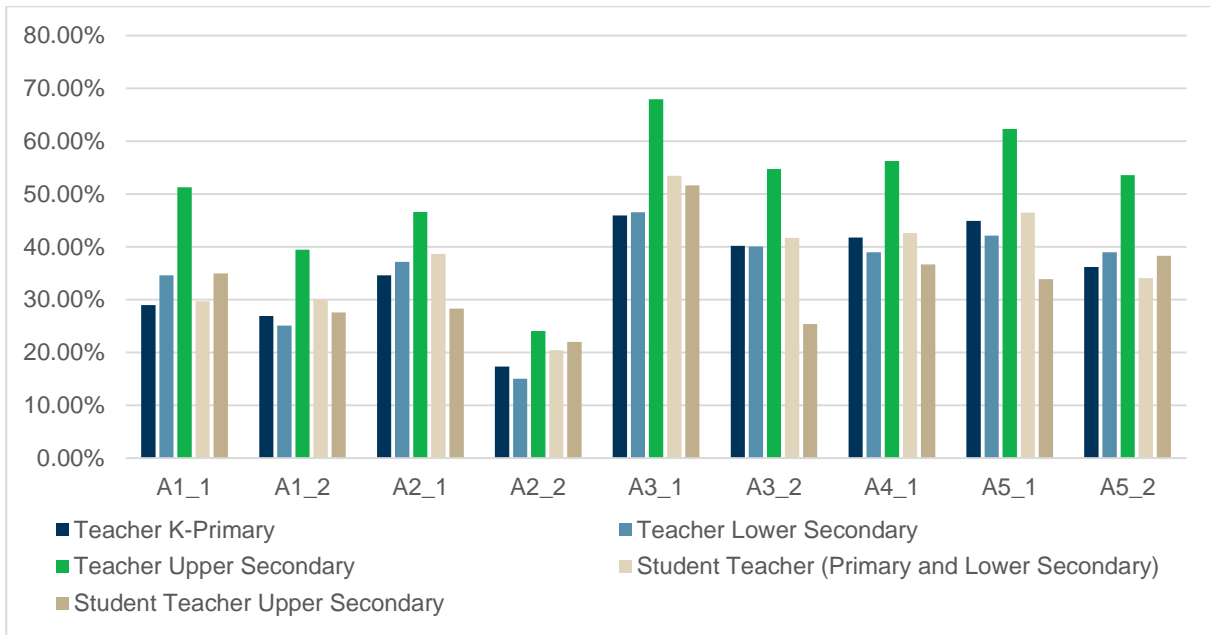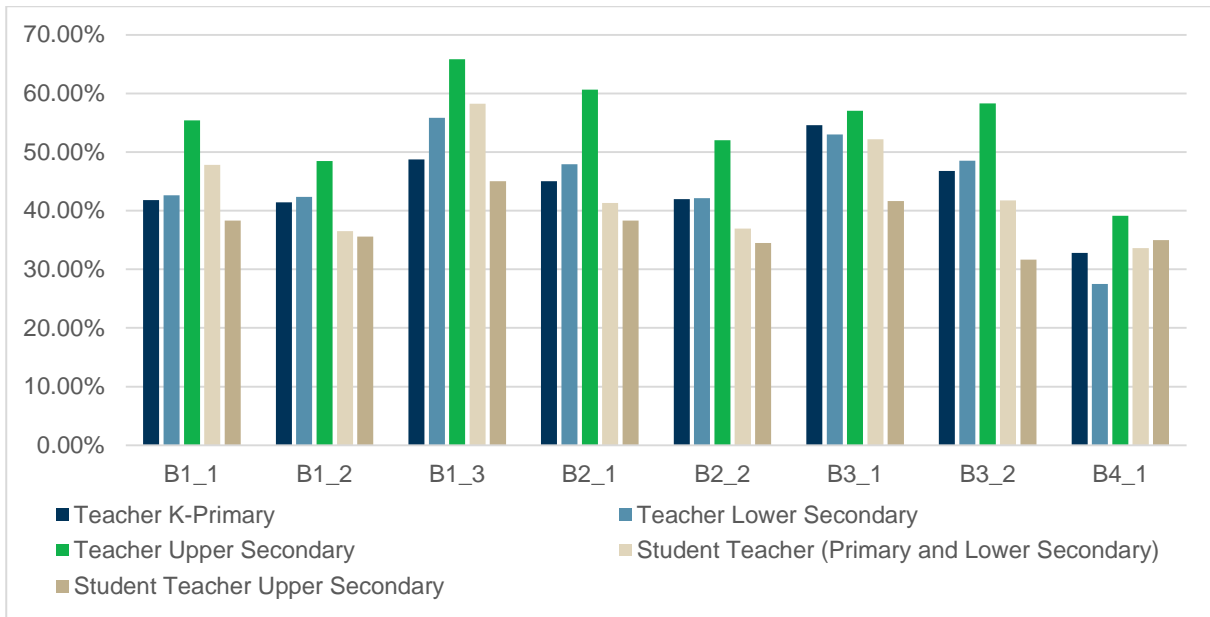
Figure 44: Teacher Type Differences: Domain A (capability)

As demonstrated in the figure above, upper secondary teachers report the highest levels of perceived capability in relation to the TCSF Domain A. There was little variance across other teach levels.
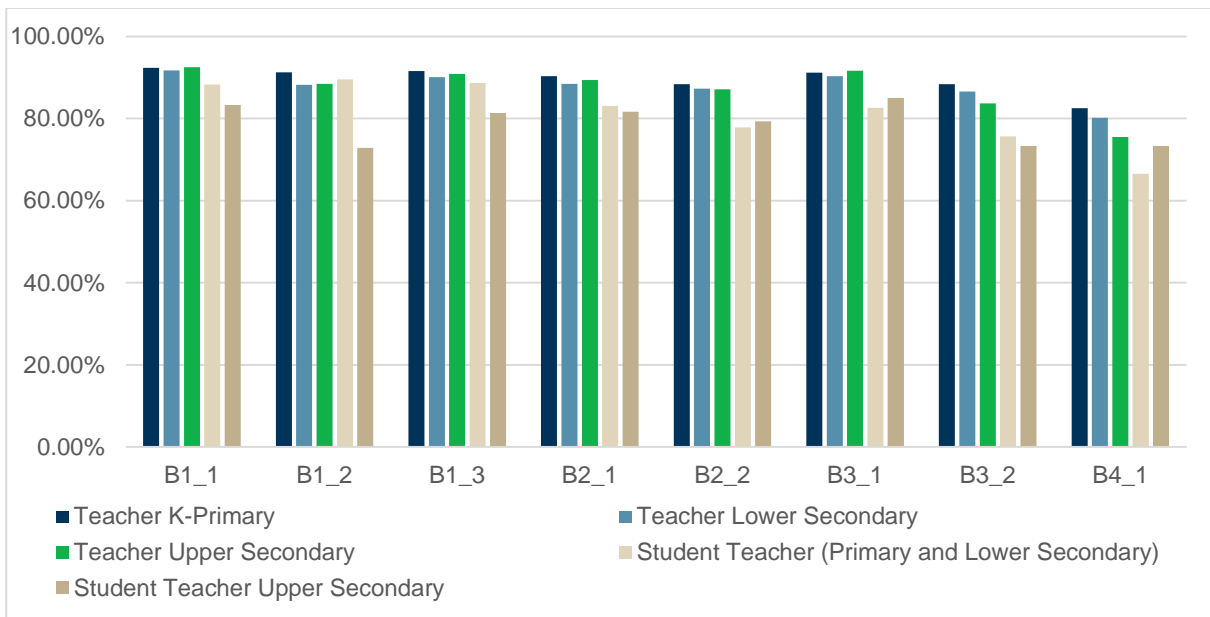

Figure 45: Teacher Type Differences: Domain A (minimum standards)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain A minimum requirements to be of value.
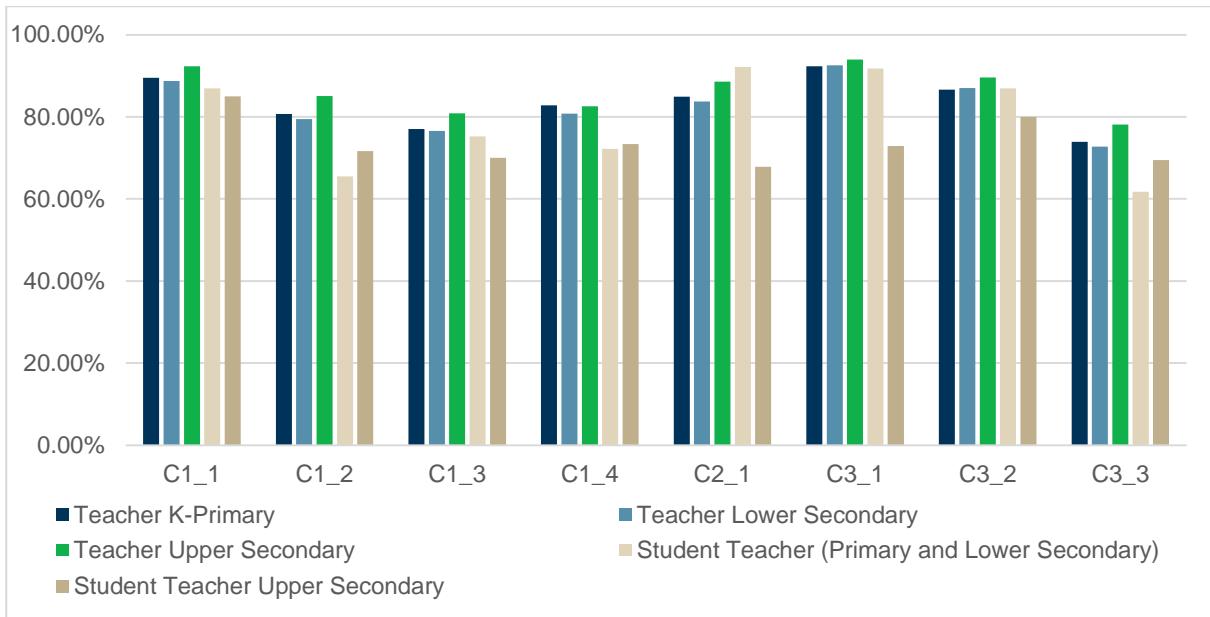
Figure 46: Teacher Type Differences: Domain B (understanding)

The figure above shows that participants, regardless of year level taught, understand the TCSF Domain B quite well.
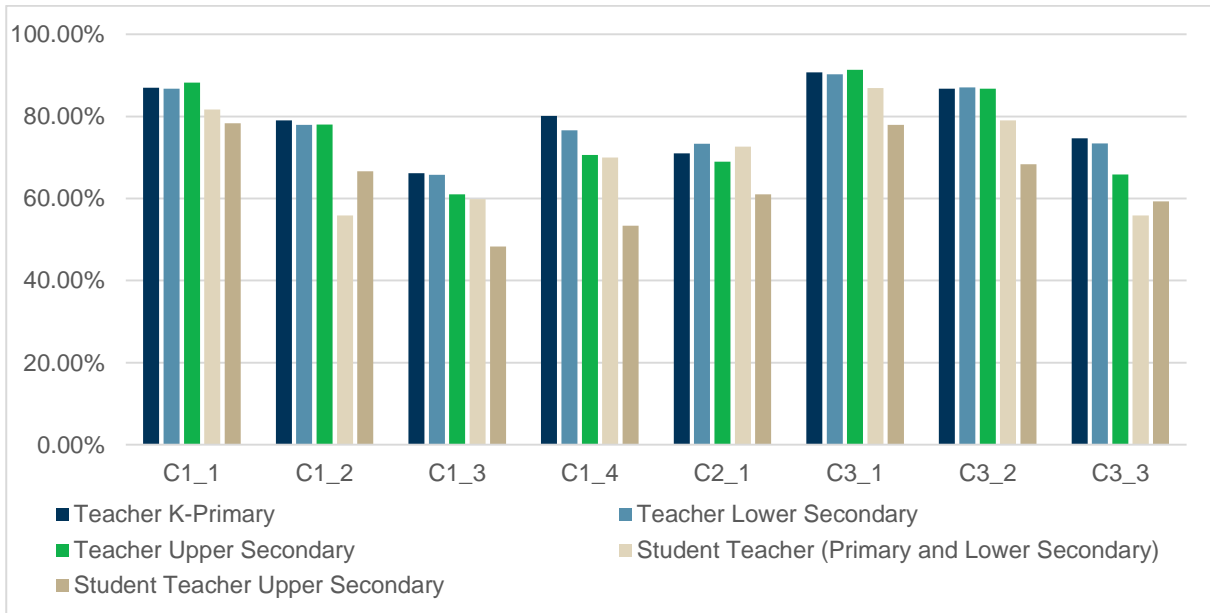

Figure 47: Teacher Type Differences: Domain B (importance)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain B to be important.
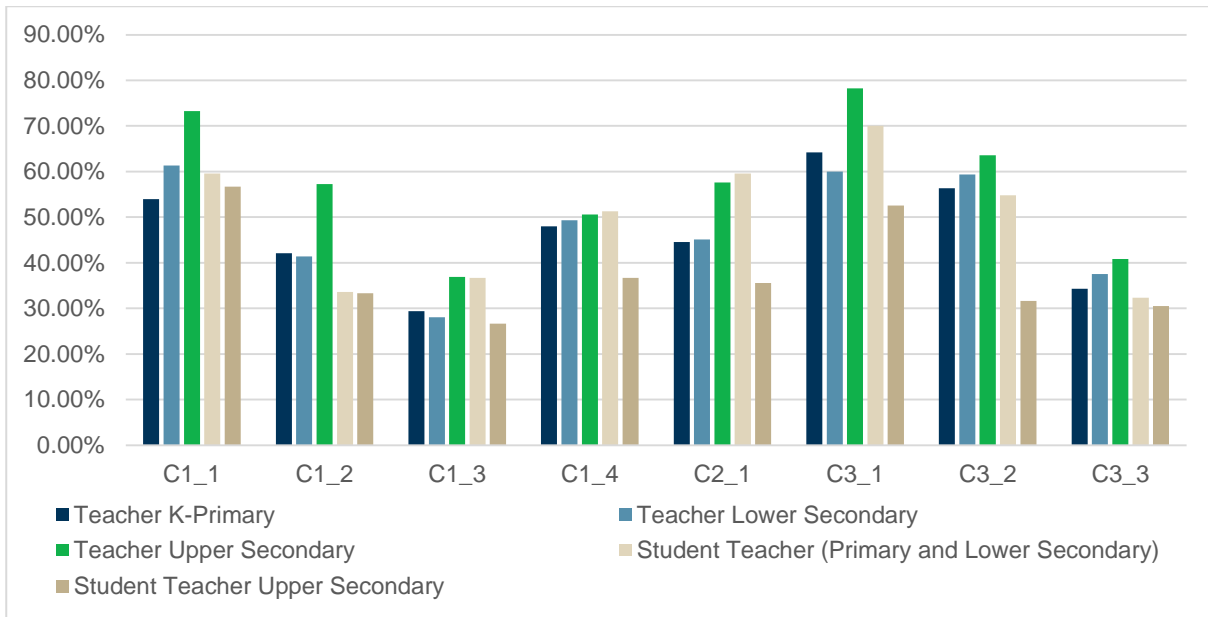
Figure 48: Teacher Type Differences: Domain B (capability)

As demonstrated in the figure above, upper secondary teachers report the highest levels of perceived capability in relation to the TCSF Domain B. There was little variance across other teach levels.

Figure 49: Teacher Type Differences: Domain B (minimum standards)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain B minimum requirements to be of value.

Figure 50: Teacher Type Differences: Domain C (understanding)

The figure above shows that participants, regardless of year level taught, understand the TCSF Domain C quite well.

Figure 51: Teacher Type Differences: Domain C (importance)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain C to be important.

Figure 52: Teacher Type Differences: Domain C (capability)

As demonstrated in the figure above, there was little variance across teach levels in terms of perceived capability in relation to the TCSF Domain C.
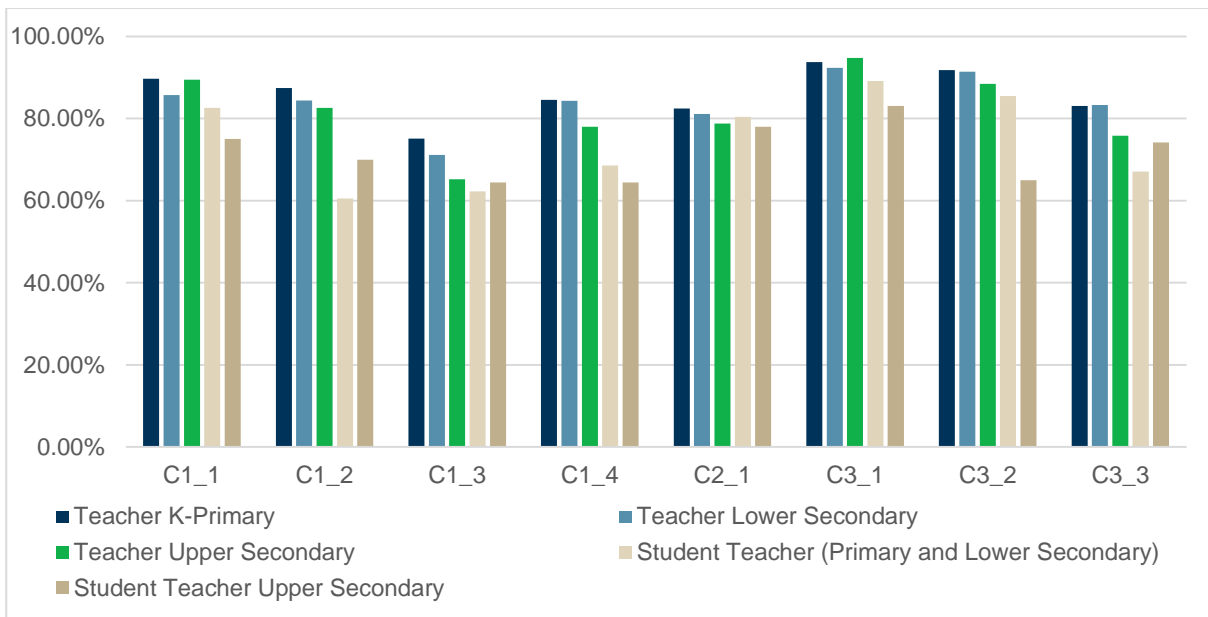

Figure 53: Teacher Type Differences: Domain C (minimum standards)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain C minimum requirements to be of value.
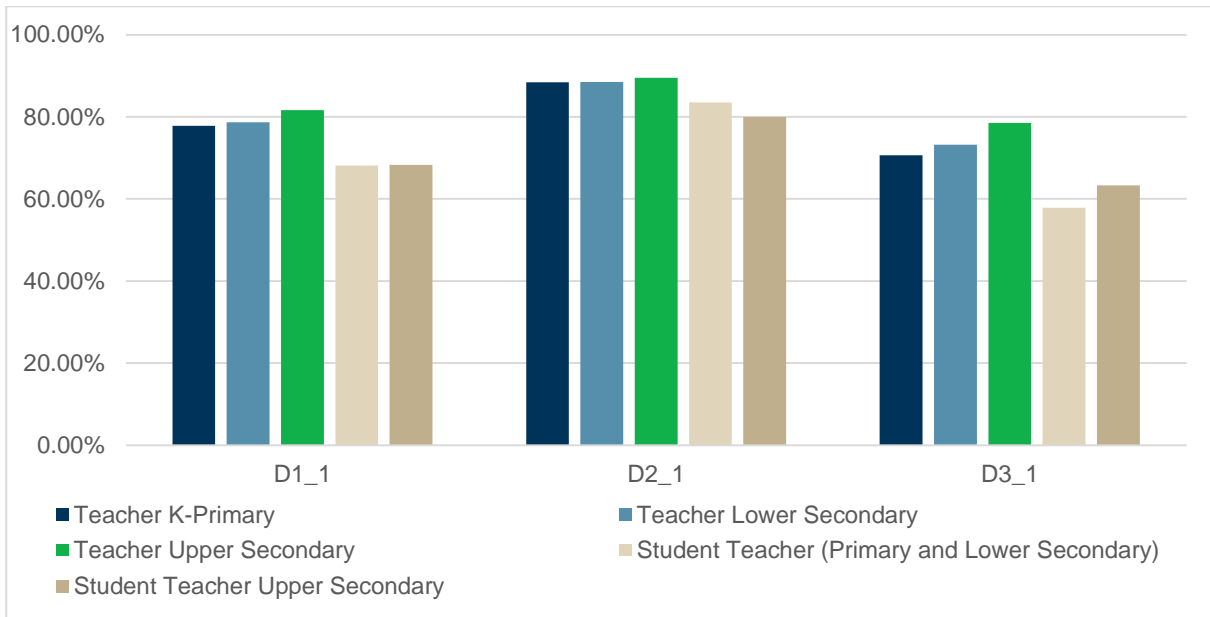
Figure 54: Teacher Type Differences: Domain D (understanding)

The figure above shows that participants, regardless of year level taught, understand the TCSF Domain D quite well.
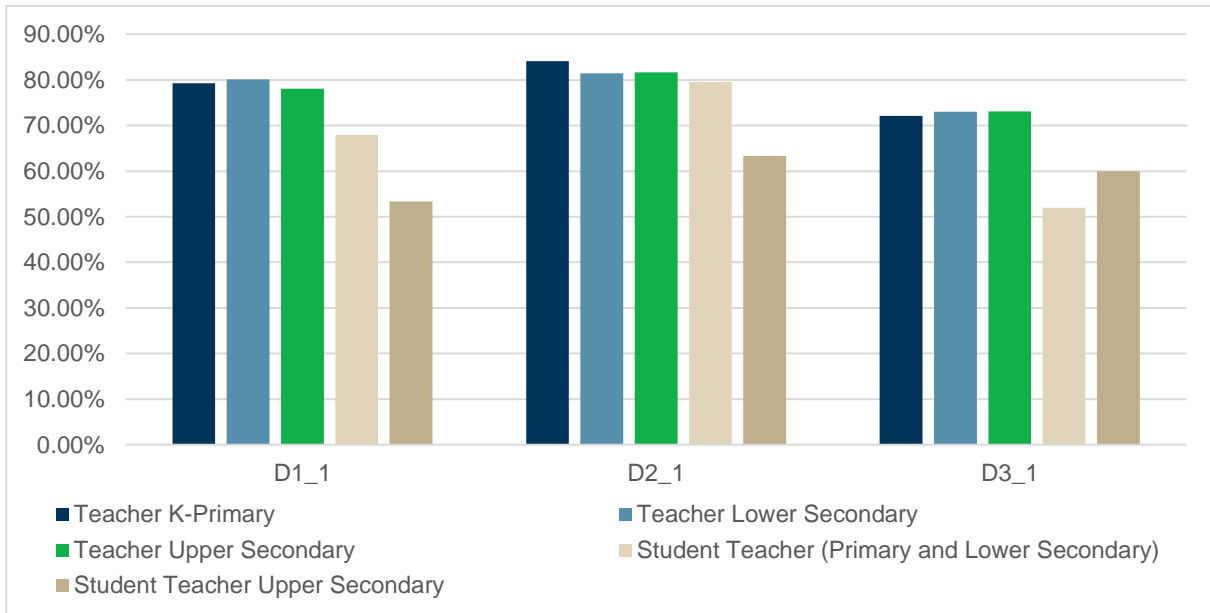

Figure 55: Teacher Type Differences: Domain D (importance)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain D to be important.
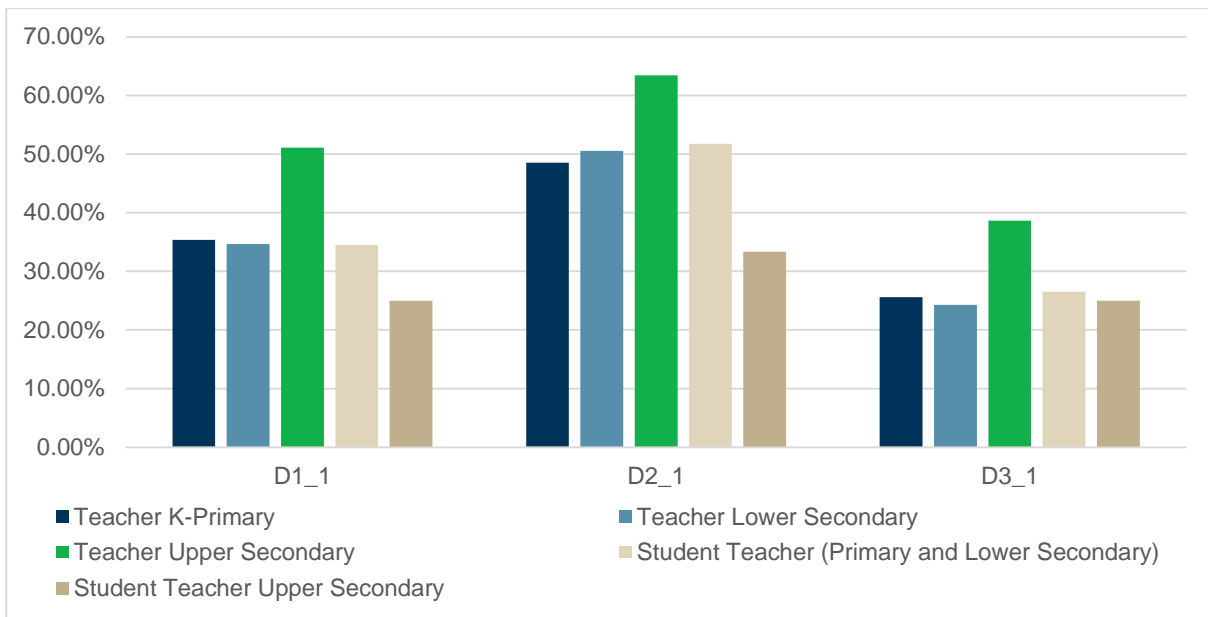
Figure 56: Teacher Type Differences: Domain D (capability)

As demonstrated in the figure above, there was some variance across teach levels in terms of perceived capability in relation to the TCSF Domain D, with upper secondary in service teachers reporting higher levels of capability than student teachers in upper secondary.
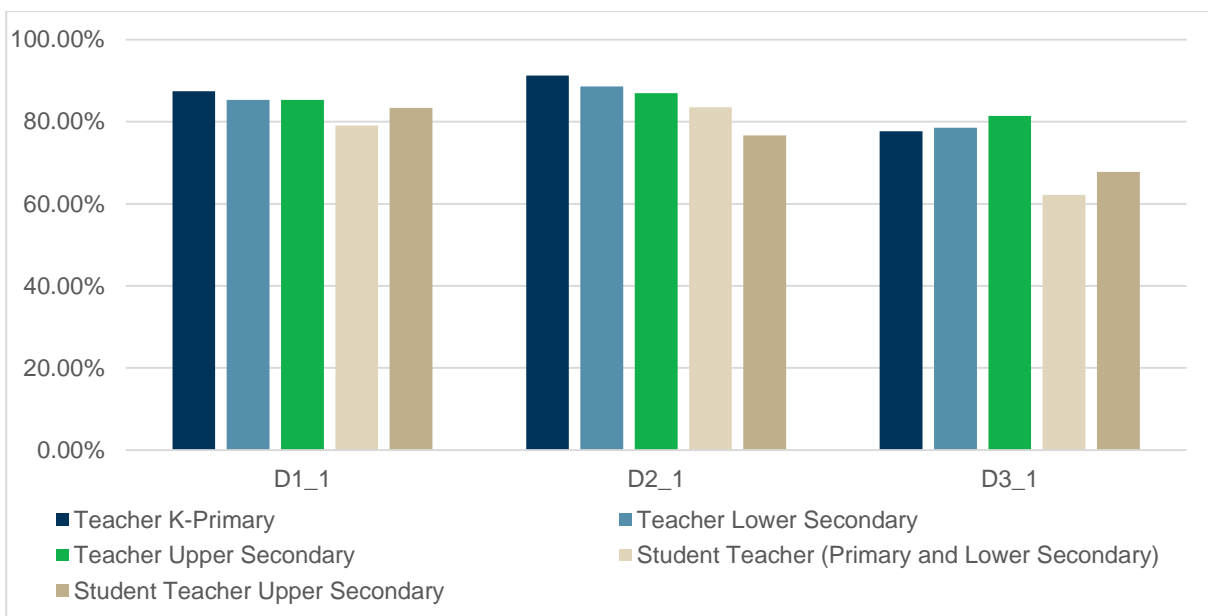

Figure 57: Teacher Type Differences: Domain D (minimum standards)

The figure above shows that participants, regardless of year level taught, perceive the TCSF Domain D minimum standards to be of value.

12.5   Region

Across the 4 TCSF Domains and indicators, teachers and student teachers from all regions report high levels of understanding, perceived importance, perceived capability, and perceived value of the minimum requirements. Teachers and student teachers in north, lower, and central regions of Myanmar have slightly lower perceptions of their teaching capability when compared to other regions of the country, though this was not statistically significant.
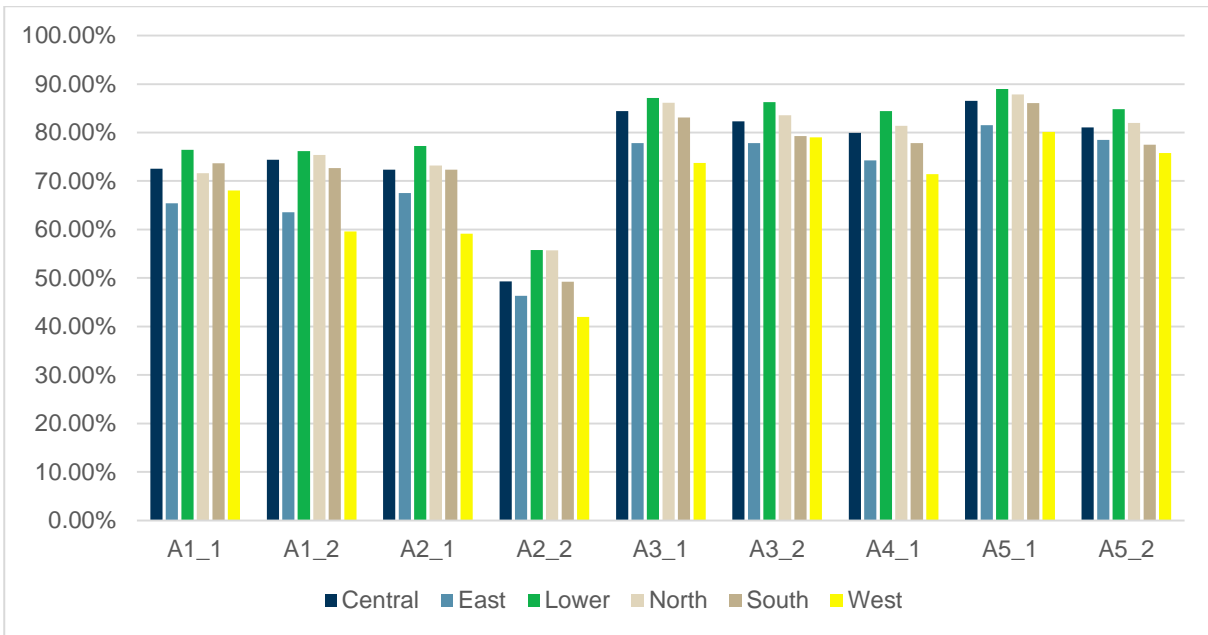
Figure 58: Regional Differences: Domain A (understanding)

As shown in the figure above, understanding of the TCSF Domain A does not vary significantly across regions.
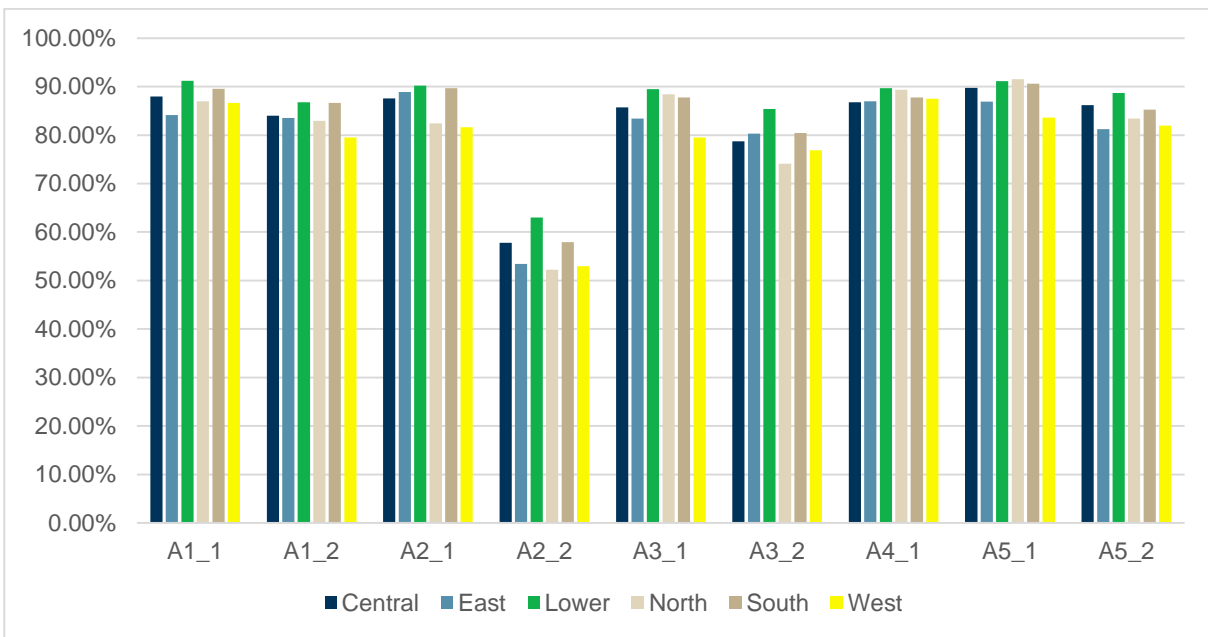

Figure 59: Regional Differences: Domain A (importance)

As shown in the figure above, perceived importance of the TCSF Domain A does not vary significantly across regions.
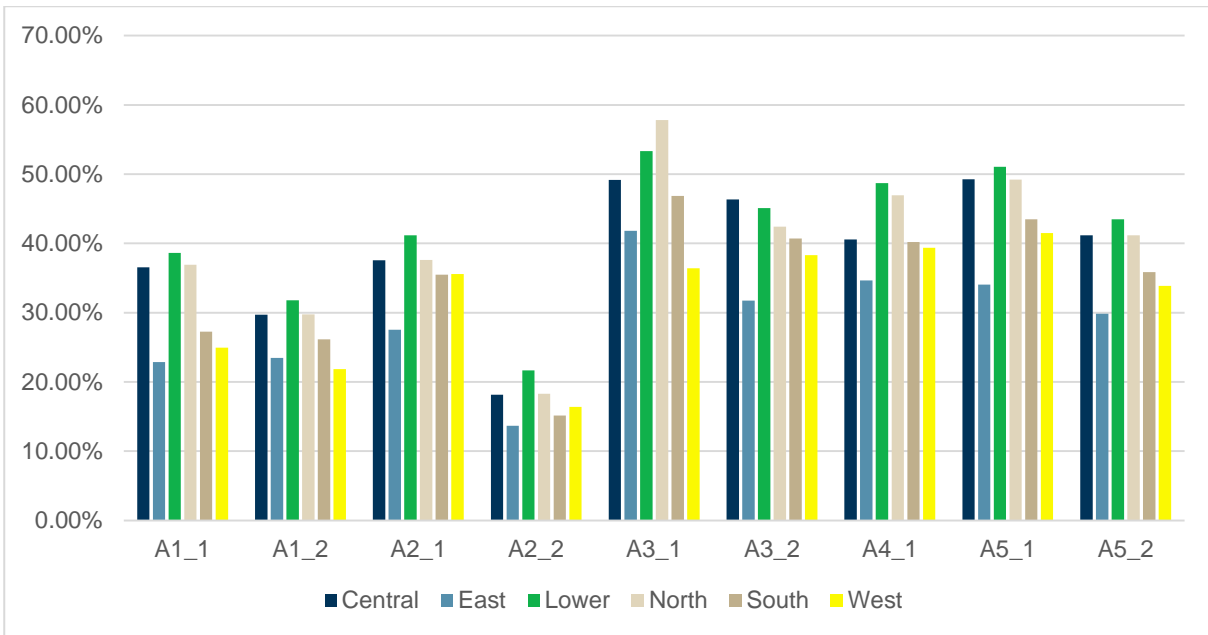
Figure 60: Regional Differences: Domain A (capability)

As demonstrated in the figure above, the Lower region of Myanmar report the highest levels of perceived capability in relation to the TCSF Domain A. There was little variance across other regions.
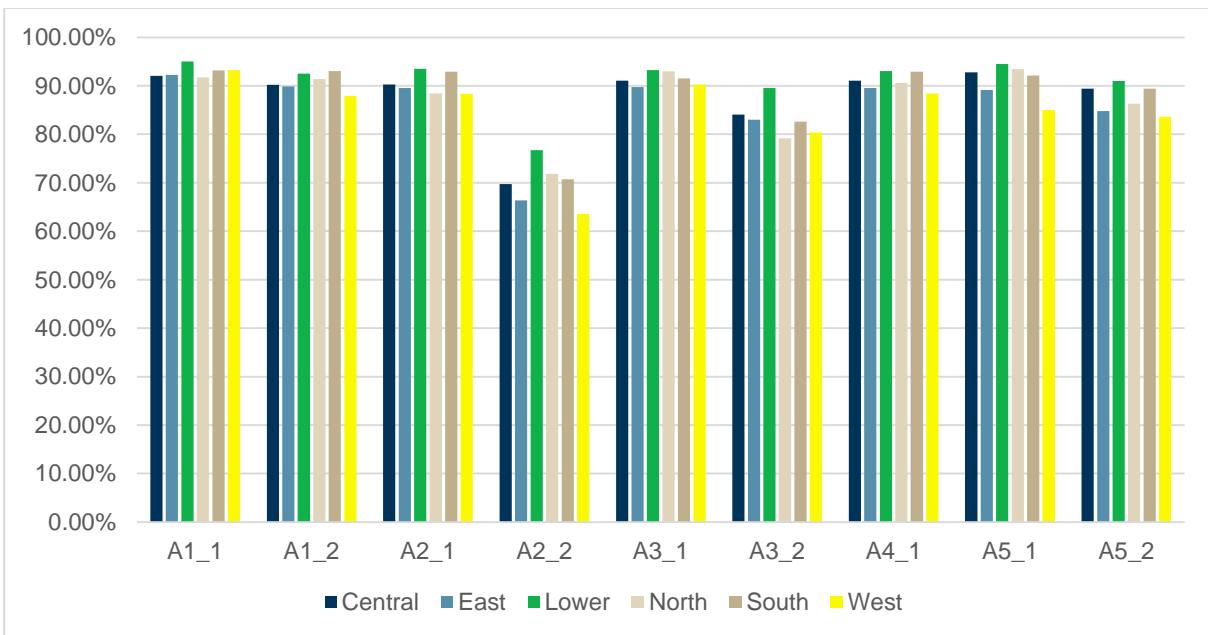

Figure 61: Regional Differences: Domain A (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain A minimum standards does not vary significantly across regions.

Figure 62: Regional Differences: Domain B (understanding)

As shown in the figure above, understanding of the TCSF Domain B does not vary significantly across regions.

Figure 63: Regional Differences: Domain B (importance)

As shown in the figure above, perceived importance of the TCSF Domain B does not vary significantly across regions.

Figure 64: Regional Differences: Domain B (capability)

As demonstrated in the figure above, there was little variance across regions in regard to the levels of perceived capability on TCSF Domain B.

Figure 65: Regional Differences: Domain B (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain B minimum standards does not vary significantly across regions.
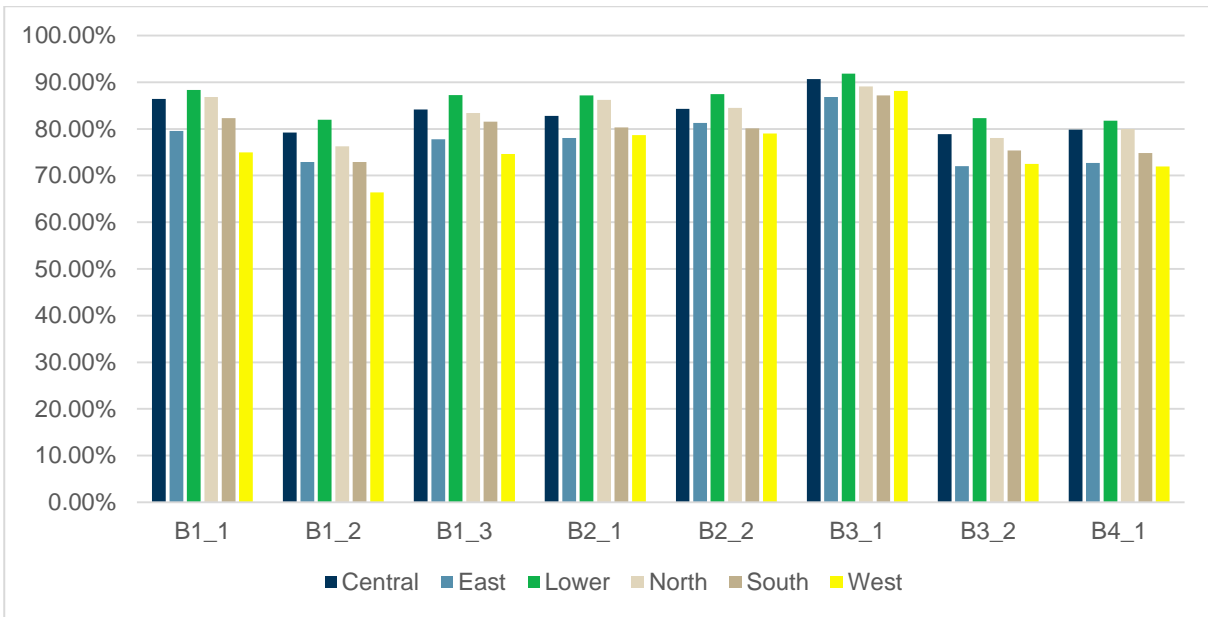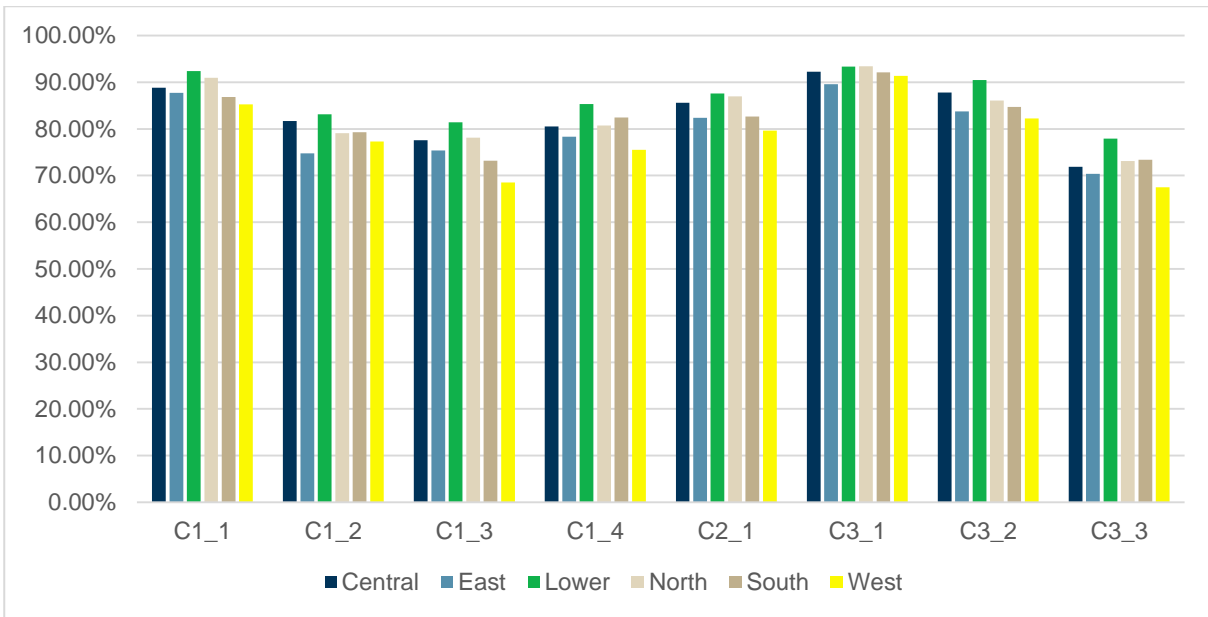
Figure 66: Regional Differences: Domain C (understanding)

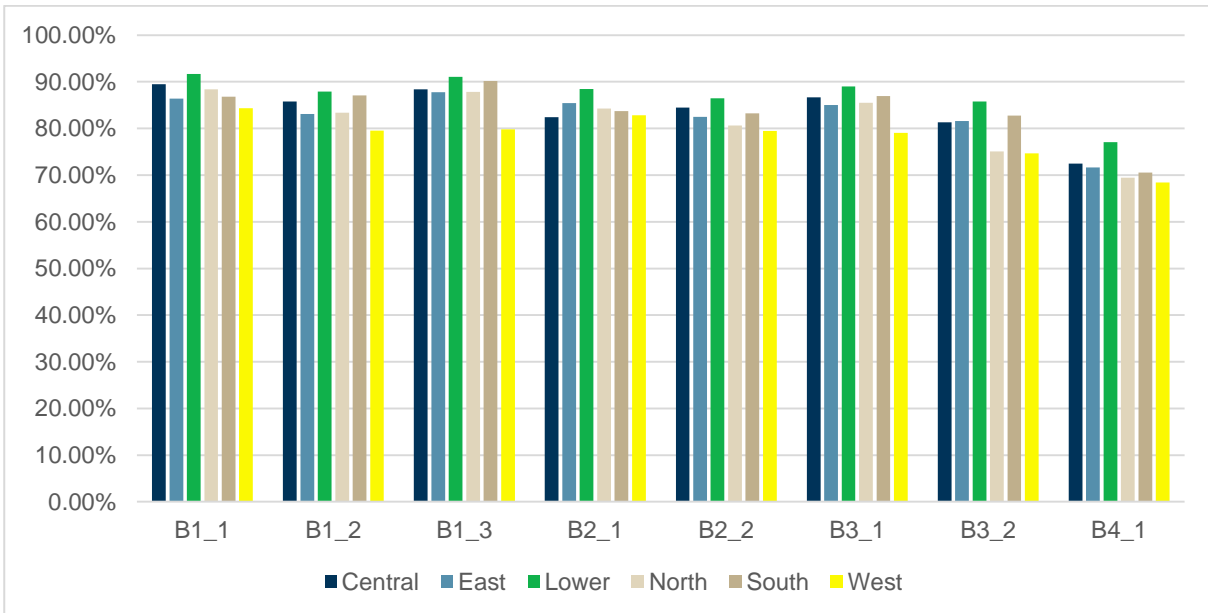As shown in the figure above, understanding of the TCSF Domain C does not vary significantly across regions.
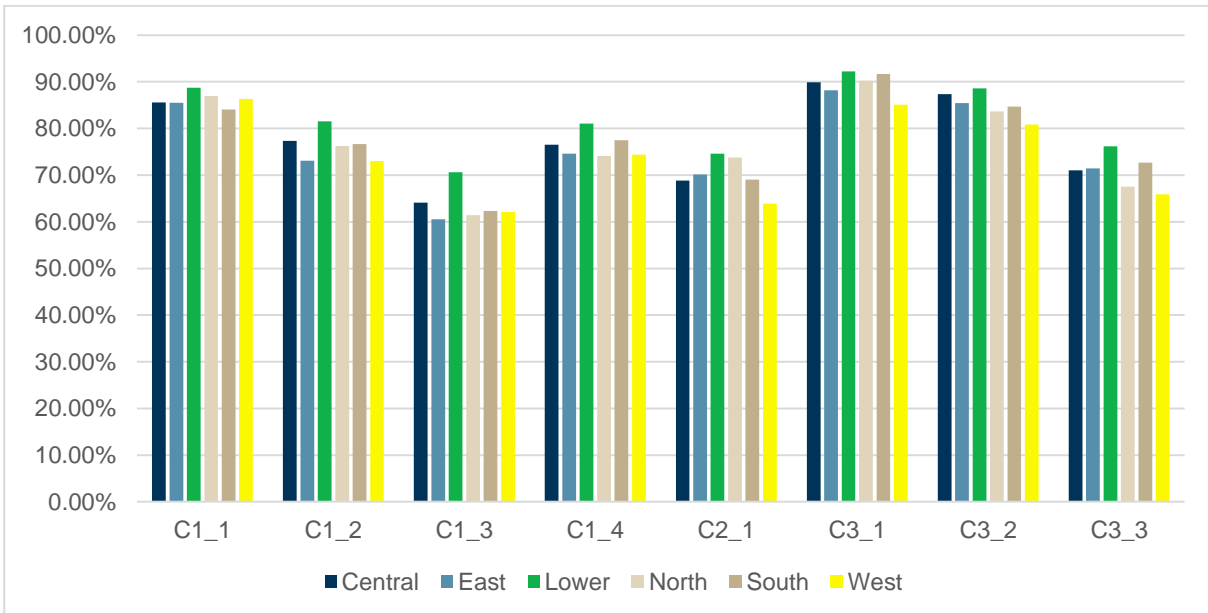
Figure 67: Regional Differences: Domain C (importance)

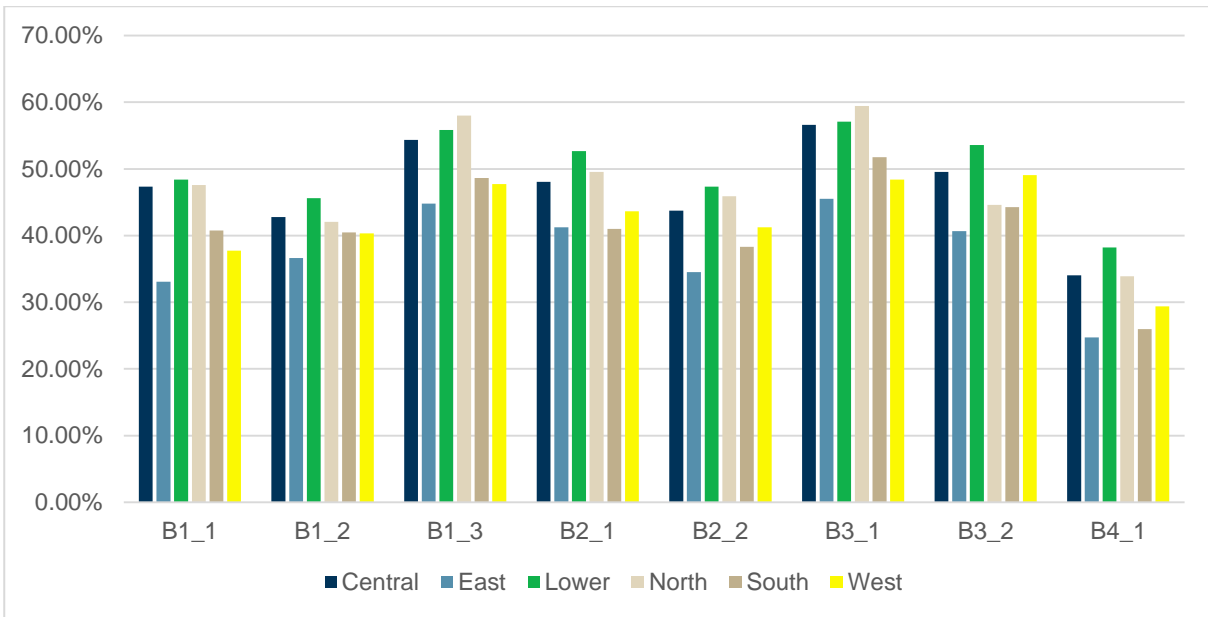As shown in the figure above, perceived importance of the TCSF Domain C does not vary significantly across regions.
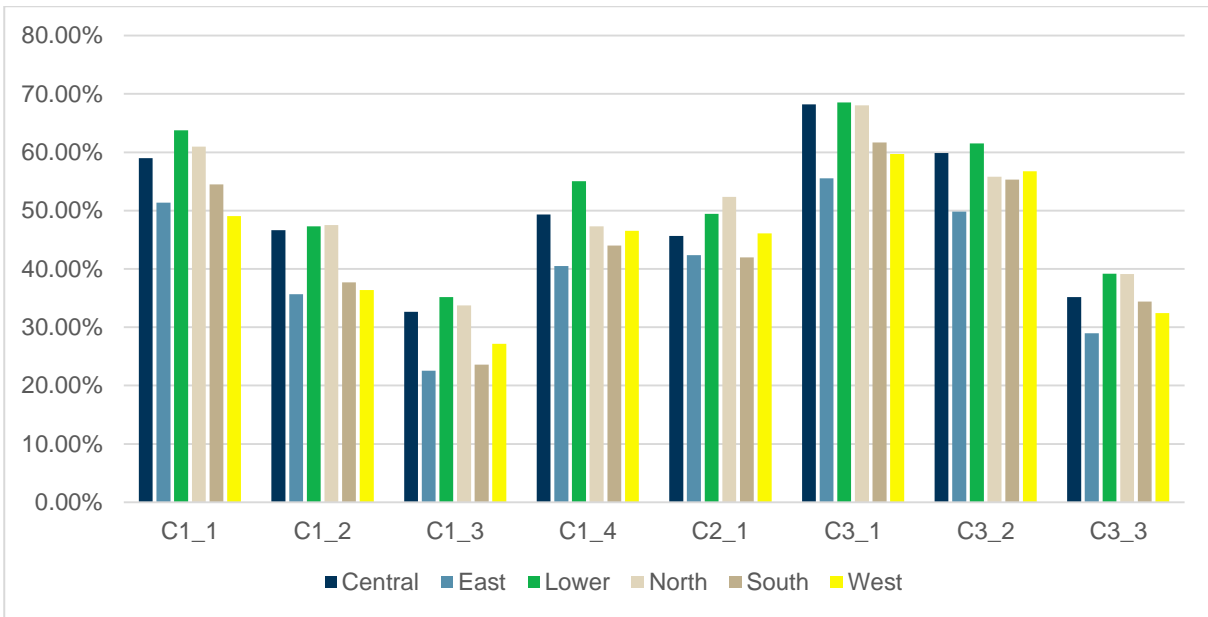
Figure 68: Regional Differences: Domain C (capability)

As demonstrated in the figure above, there was little variance across regions in regard to the levels of perceived capability on TCSF Domain C.
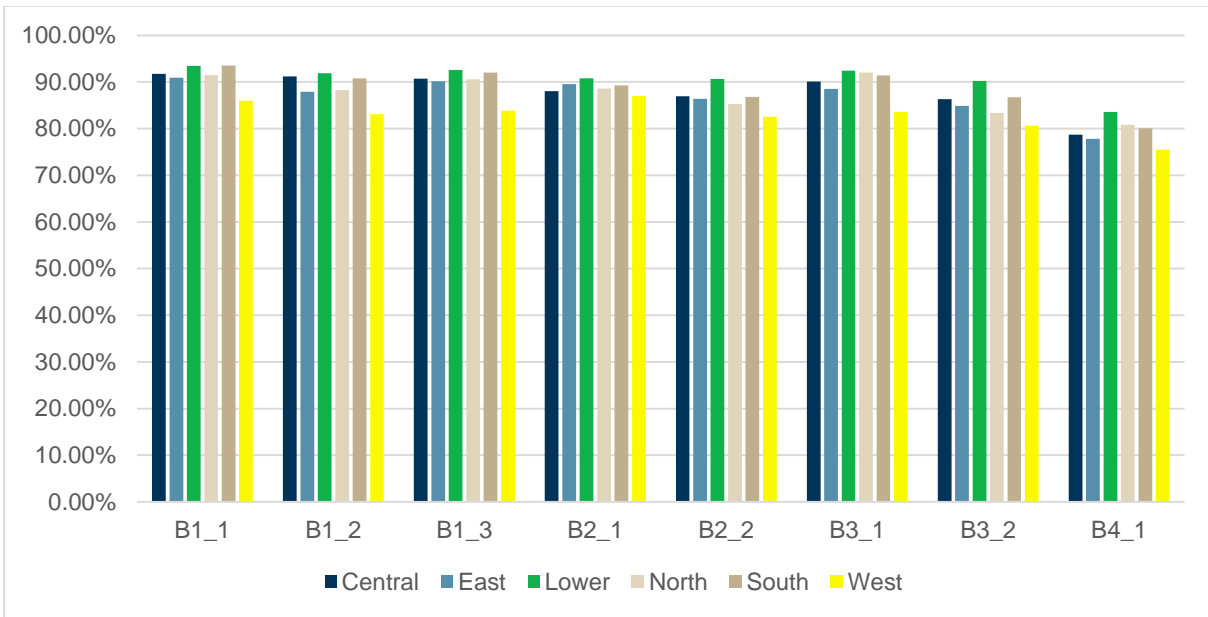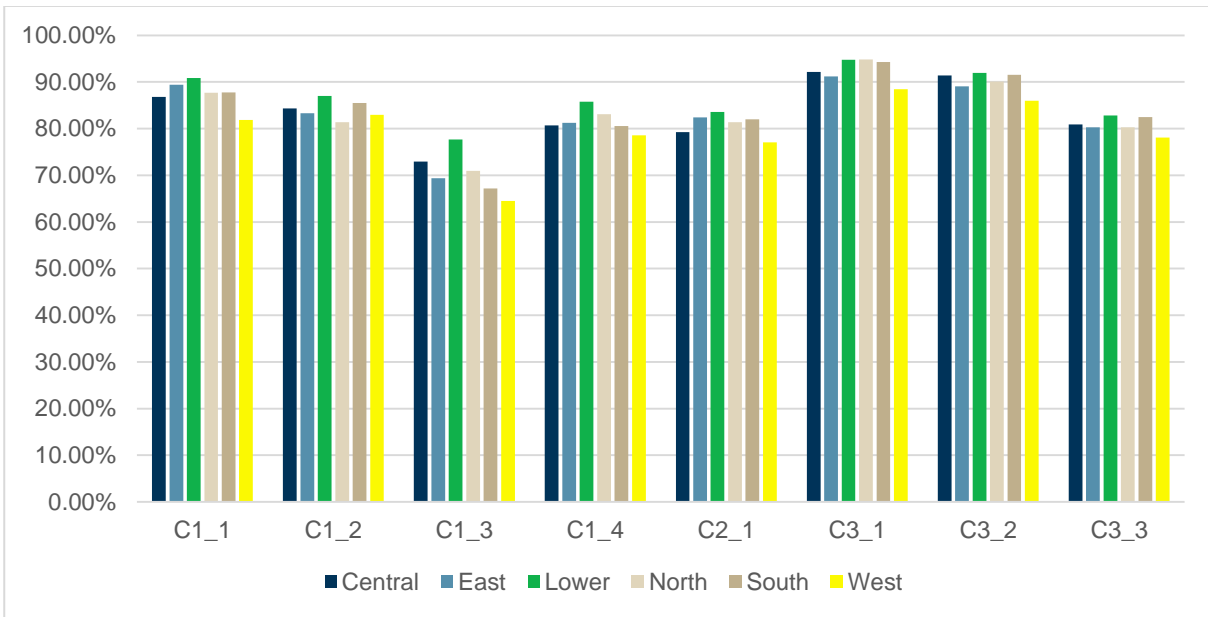

Figure 69: Regional Differences: Domain C (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain C minimum standards does not vary significantly across regions.
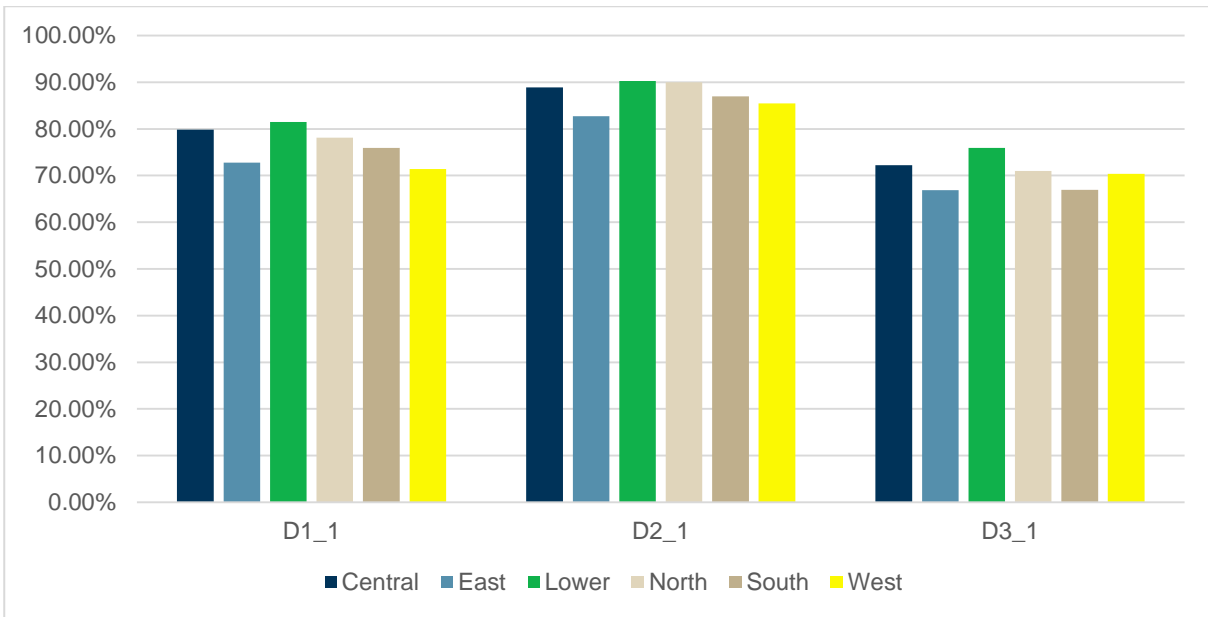
Figure 70: Regional Differences: Domain D (understanding)

As shown in the figure above, understanding of the TCSF Domain D does not vary significantly across regions.

Figure 71: Regional Differences: Domain D (importance)

As shown in the figure above, perceived importance of the TCSF Domain D does not vary significantly across regions.

Figure 72: Regional Differences: Domain D (capability)

As demonstrated in the figure above, there was little variance across regions in regard to the levels of perceived capability on TCSF Domain D.

Figure 73: Regional Differences: Domain D (minimum standards)

As shown in the figure above, perceived importance of the TCSF Domain D minimum standards does not vary significantly across regions.
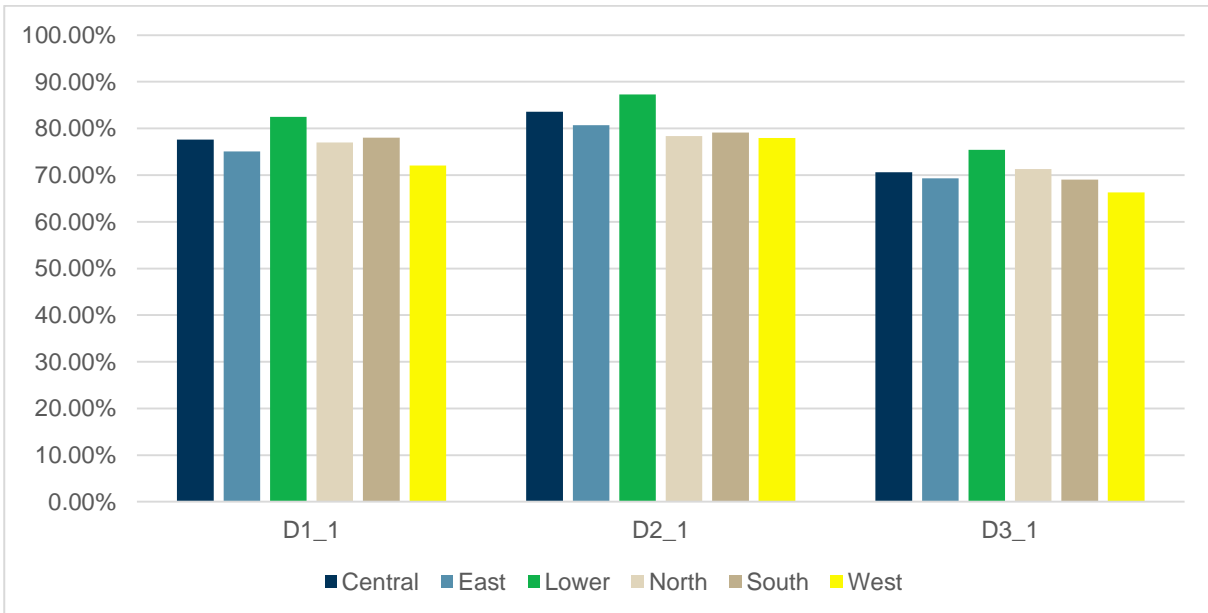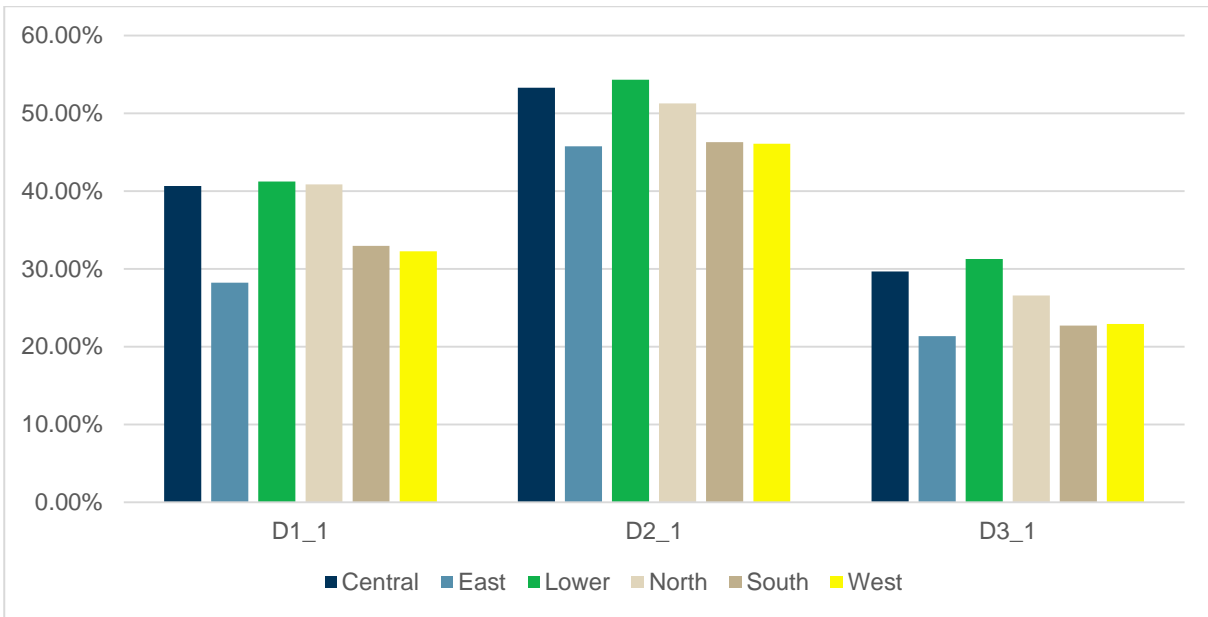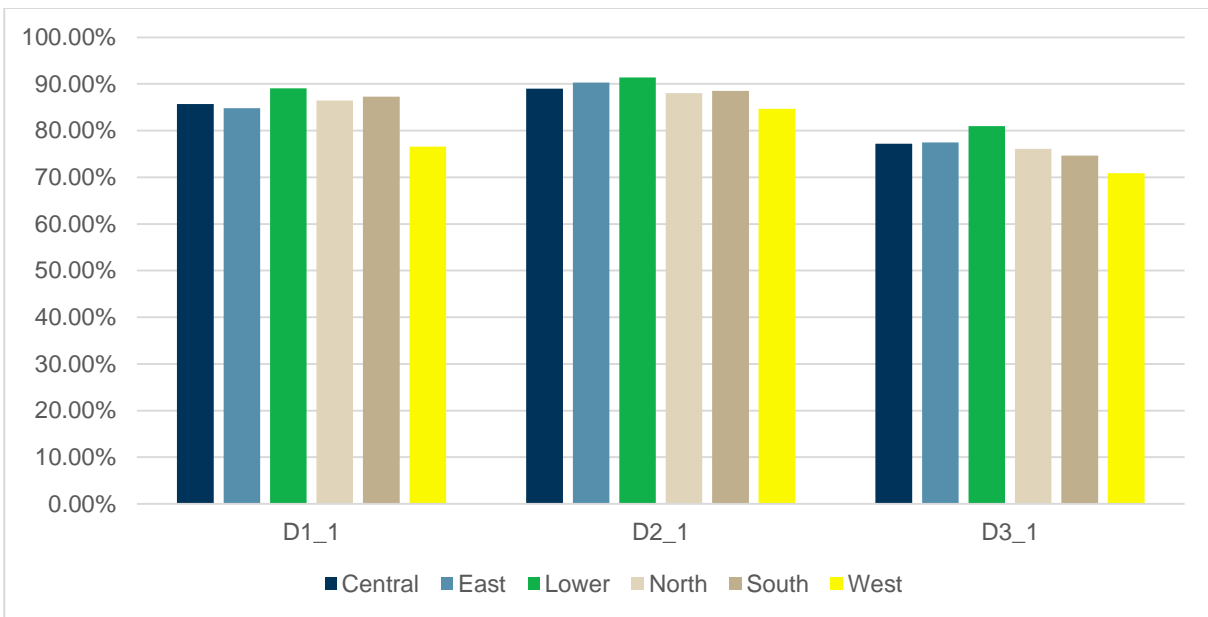
13   Appendix 6: TCSF Version 3.2

13.1   Domain A: Professional Knowledge and Understanding

This domain centres on the information that teachers should know and be able to demonstrate. It encompasses the knowledge required for teaching different ages and stages and level-appropriated subject content competency. Inherent in any focus on subject competency is the necessity to understand how students learn and how they can be effectively taught in the key learning areas. Underpinning all competency standards in this domain is knowledge of educational policy and school curricula for Myanmar, its aims and objectives and developments.

Area of Competence: Professional knowledge and understanding – Educational Studies

Competency standard A1: Know how students learn
Minimum requirements
A1.1 Demonstrate understanding of how students learn relevant to their age and developmental stage
A1.2 Demonstrate understanding of how different teaching methods can meet students' individual learning needs

Area of Competence: Professional knowledge and understanding –Educational technologies

Competency standard A2: Know appropriate use of educational technologies
Minimum requirements
A2.1 Demonstrate understanding of appropriate use of a variety of teaching and learning strategies and resources
A2.2 Demonstrate understanding of appropriate use of Information and Communication Technology (ICT) in teaching and learning

Area of Competence: Professional knowledge and understanding – Students, families, schools and communities

Competency standard A3: Know the process for communicating well with students and their families
Minimum requirements
A3.1 Demonstrate understanding of the role and expected duties of teachers in Myanmar
A3.2 Demonstrate respect for the social, linguistic, and cultural diversity of the students and their communities

Area of Competence: Professional knowledge and understanding – Curriculum

Competency standard A4: Know the curriculum
Minimum requirements
A4.1 Demonstrate understanding of the structure, content and expected learning outcomes of the basic education curriculum

Area of Competence: Professional knowledge and understanding – Subject matter

Competency standard A5: Know the subject content
Minimum requirements
A5.1 Demonstrate understanding of the subject matter to teach the assigned subject/s for the specified grade level/s
A5.2 Demonstrate understanding of how to vary delivery of subject content to meet students' learning needs and the learning context

13.2   Domain B: Professional Skills and Practices

This domain deals with what teachers are able to do. The teachers' professional knowledge and understanding is complemented by possession of a repertoire of teaching strategies for different educational contexts to meet the needs of individual students as appropriate to different subject areas and stages of schooling.

Area of Competence: Professional skills and practices - Pedagogy

Competency standard B1: Teach curriculum content using various teaching strategies
Minimum requirements
B1.1 Demonstrate capacity to teach subject-related concepts and content clearly and engagingly
B1.2 Demonstrate capacity to apply educational technologies and different strategies for teaching and learning
B1.3. Demonstrate good lesson planning and preparation in line with students' learning ability and experience

Area of Competence: Professional skills and practices - Assessment

Competency standard B2: Assess, monitor, and report on students' learning
Minimum requirements
B2.1 Demonstrate capacity to monitor and assess student learning
B2.2 Demonstrate capacity to keep detailed assessment records and use the assessment information to guide students' learning progress

Area of Competence: Professional skills and practices - Classroom management

Competency standard B3: Create a supportive and safe learning environment for students
Minimum requirements
B3.1 Demonstrate capacity to create a safe and effective learning environment for all students
B3.2 Demonstrate strategies for managing student behaviour

Area of Competence: Professional skills and practices - Communication

Competency standard B4: Work together with other teachers, parents, and community
Minimum requirements
B4.1 Demonstrate strategies for working together with other teachers, parents, and the local community to improve the learning environment for students

13.3   Domain C: Professional Values and Dispositions

This domain refers to the ideas, values and beliefs that teachers hold about education, teaching and learning. It is underpinned by the values expressed in the Myanmar National Education Law and reflects the mutual understanding by teachers and the community about the Myanmar teacher – Teach students to be disciplined, Teach and explain to your best, Teach everything known, Appreciate students and Stand up for students whenever needed, Teach to value the professional work of being a teacher. According to Myanmar tradition, in return, the community will respect teachers.

Area of Competence: Professional values and dispositions – Service to profession

Competency standard C1: Service to profession
Minimum requirements
C1.1 Demonstrate values and attitudes consistent with Myanmar's tradition of perceiving teachers as role models
C1.2 Demonstrate understanding of the underlying ideas that influence one's practice as a professional teacher
C1.3 Demonstrate understanding of the possible effect of local culture and context on student participation in school
C1.4 Demonstrate responsibility and accountability for the use of education resources

Area of Competence: Professional values and dispositions - Service to community leadership

Competency standard C2: Service to community leadership
Minimum requirements
C2.1 Demonstrate commitment to serving the school and community as a professional member of the teaching profession

Area of Competence: Professional values and dispositions - Student-centred values

Competency standard C3: Promote quality and equity in education for all students   Minimum requirements
C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably
C3.2 Demonstrate respect for diversity of students and the belief that all students can learn according to their capacities
C3.3 Demonstrate capacity to build students' understanding of different cultures and global citizenship

13.4 Domain D: Professional Growth and Development

This domain deals with teachers' continuing professional growth and development. It incorporates teachers' habits, motivation and actions related to their on-going learning and professional improvement. It advocates the importance of all teachers being aware of their role as leaders within the community and highlights the need for active research to support teachers' classroom performance and continuing professional development.

Area of Competence: Professional Growth and Development - Reflective practices

Competency standard D1: Reflect on own teaching practice
Minimum requirements
D1.1 Regularly reflect on own teaching practice and its impact on student learning

Area of Competence: Professional Growth and Development - Collaborative learning

Competency standard D2: Engage with colleagues in improving teaching practice
Minimum requirements
D2.1 Improve own teaching practice through learning from other teachers and professional development opportunities

Area of Competence: Professional Growth and Development - Initiative for research culture

Competency standard D3: Participate in professional learning to improve teaching practice

Minimum requirements
D3.1 Demonstrate understanding of the importance of inquiry and research-based learning to improve teaching practice

14   Appendix 7: Key Findings by Phase

Phase	Findings
Phase 1: Expert Review	• Overall, participants involved in the TCSF expert survey indicated that overall the TCSF was understandable, achievable, and assessable; • The most positive overall response was about understandability, with the majority of experts considering minimum requirements likely to be understandable; • The least positive overall response concerned achievability; • Experts in teacher education were broadly positive that all items are understandable, achievable and assessable; • Experts in teaching practice were least positive, especially about achievability and assessability; • Experts in teacher policy were very positive about understandability, but less positive about achievability; • There were some particular difficulties in the interpretation of the TCSF. These arose, first, from problems with the wording of the minimum requirements or indicators; • There was concern that the requirements could not be met in the immediate circumstances of teachers in Myanmar because of the resource context of schools (such as ICT facilities and class sizes) and their current knowledge and skills (especially, but not only, related to ICT).
Phase 2: Teacher Survey	• Across the 4 domains, across all demographic categories, teachers and student teachers reported they can either perform adequately or above; • Across the 4 domains, across all demographic categories, teachers and student teachers reported they understand their requirements quite well; • There was no significant distance in perceptions of the domains by teacher type; • Teachers and student teachers were slightly more confident in demonstrating an understanding of how different teaching methods can meet students' individual learning needs, though this was not statistically significant; • Gender does not seem to play a large role in differentiating between groups. Male and Female teachers and student teachers tended to show the same answers in any given domain and indicator; • Across domains, teachers and student teachers believe that the minimum requirement for pre-service teacher education curriculum and for future teachers is well determined and is helpful in promoting a meaningful educational context; • In relation to qualification, there was no significant difference between perceived ability to teach or act in a teaching capacity; • Higher education levels resulted in slightly greater emphasis on the importance of pre-service education, however higher education levels do not result in higher perceptions of competency across the 4 domains;

	• Religious (monastic) schools fare slightly not as well as public schools in perceived capability across the 4 domains; though this was not statistically significant, and • Teachers and student teachers in north, lower, and central regions of Myanmar have slightly lower perceptions of their teaching capability when compared to other regions of the country. • Survey respondents including both teachers and student teachers engaged in ICT occasionally but there were no significant findings generated from the extra items regarding perspectives on ICT; • Survey respondents including both teachers and student teachers appeared to be highly engaged with the TSCF, which creates a positive environment and a common framework within which to discuss goals, opportunities, and shared responsibility for the outcomes of Myanmar's students
Phase 3: Case Studies	• Across the 4 domains, case study participants appeared to be attempting to meet the minimum requirements; • Although case study participants were able to describe *what* they did in regards to the 4 Domains, they were less able to describe *how* they employed pedagogical approaches to their teaching. • Participating teachers reported setting goals for students and having confidence in monitoring student learning. However, establishing clear learning objectives was not always apparent in classroom observations; • Teachers made efforts to consider gender and inclusion mechanisms in their practice; • In over half of the classroom observations conducted, observers did not record teachers referring to student' culture or context, suggesting the ability to link lessons to a student's life requires professional support; • Case study teachers expressed a desire for greater access to resources across the profession, including time to support students of diverse ability; • Teachers expressed value in mentoring, collegial practice, and school and community engagement; • There was limited evidence of teachers using ICT in classroom observations; • Participants highlighted a need for professional development to support the monitoring of student assessment and achievement; • Access to tailored professional learning resources aligned to the TCSF was also identified as an area of interest for participating teachers.