Institute for Social Science Research

24 September 2021

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Final Report - Technologies

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1. Executive Summary

1.1 Background

On 12 June 2020, Australia's education ministers tasked the Australian Curriculum, Assessment and Reporting Authority (ACARA) to undertake a review of the Australian Curriculum from Foundation to Year 10 (the Review) to ensure it is still meeting the needs of students and providing clear guidance on what teachers need to teach. ACARA has worked in close consultation with the profession and key stakeholder groups to complete the Review. The Review looks over the existing 3 dimensions of the Australian Curriculum: the learning areas, general capabilities, and cross-curriculum priorities. To improve the Foundation to Year 10 (F-10) Australian Curriculum, ACARA's broad aims are to refine, realign and declutter the content of the curriculum within its existing structure.

As part of the Review, ACARA invited public feedback on its proposed revisions to the Australian Curriculum. The consultations were open from 29 April to 8 July 2021. ACARA has contracted the Institute for Social Science Research (ISSR) at The University of Queensland to undertake an independent analysis of the data collected during the consultations and to prepare consultation reports to assist ACARA in completing the revisions. This report presents the key findings from the analysis of the consultation feedback for the proposed revisions to the F-10 Australian Curriculum: Technologies.

1.2 Consultation features and caveats

There were 3 channels in which feedback from consultations was received:

1. an online survey on the ACARA website where respondents completed both closed-ended and open-ended questions on the proposed revisions to the introductory sections (the rationale, aims, organisational structure, key connections and key considerations), curriculum content (band level descriptions, achievement standards, content descriptions and content elaborations), overall feedback (the terms of reference for the Review), as well as demographics and organisational details;
2. open submission process, which involved providing written feedback by email to ACARA;
3. written feedback from the state and territory education authorities and national non-government sectors provided in response to invitations accompanied by guidelines that reflected the online survey structure.

The character of the consultation was public and anonymous for participating individuals. This allowed participation of individuals and groups with varying understandings of the Australian Curriculum, the proposed revisions, and the terms of reference (TOR) of the Review. The consultations did not impose protocols to confirm the identity of participants or that participants submitted their feedback only once. The 3 different channels of capturing feedback were also associated with methodological differences (see Section 3.4.1). Results of the consultation included in this report should be seen in this context. They report perceptions of participants captured through different channels in the consultation process without assuming that these are representative of relevant stakeholder groups. They present perceptions as they were conveyed by stakeholders without qualifying them against the proposed revisions to the curriculum and without making assessments about their professional or other value.

1.3 Methodology

Individual feedback received via emails was de-identified by ACARA prior to making it available to ISSR. Identification of organisations among email submissions was maintained so that the participating organisations could be listed in the reporting. Jurisdictional feedback also remained identifiable for documentation in the reporting.

Responses from the survey were only included when they had been completed, which required the participant to press 'submit' on the last survey page. Data from quantitative questions were cleaned and checked for consistency and processed using statistical software.

ISSR developed a code frame (Appendix C) that defined the themes and subthemes that emerged from the open-ended responses and established rules for coding such open-ended responses to those themes and subthemes. This code frame was used to analyse and report the feedback provided via open-ended survey questions, open email submissions, and jurisdictional submissions.

Stakeholder perceptions are reported for each of the 3 channels without applying weights and without identifying more or less authoritative voices among participating stakeholders within each consultation channel.

1.4 Stakeholder response and profile

ACARA received 237 responses to the online survey. Survey respondents were asked to select which one out of the 2 subjects for Technologies they represented in completing the survey. There were 133 specifically related to Design and Technologies and 104 specifically related to Digital Technologies.

The largest proportion of online survey respondents was teachers. School leaders was the next largest respondent group, followed by schools. This pattern was seen in both subjects.

Online survey respondents were more likely to be based in Queensland for the 2 subjects. Based on jurisdictional shares in the national population, the 2 largest states, New South Wales and Victoria, were particularly under-represented among survey respondents.

Design and Technologies respondents were most likely to comment on the Years 7 to 10 (Y7-10) curriculum (66%) while this was less the case for Digital Technologies respondents (31%).

Almost 3 in 5 of these online survey respondents indicated to be linked to a government school. The Independent sector was the next largest respondent group, followed by the Catholic education sector. This pattern was seen for both of the subjects.

ACARA received 35 email submissions specifically related to the Australian Curriculum: Technologies. The majority (n=20) of email submissions did not apply to one specific subject.

Submissions were invited from each state and territory as well as the 2 national sector peak bodies representing the Catholic and Independent school sectors. Nine submissions were received in total: Queensland, New South Wales, Victoria, Western Australia, South Australia, Tasmania, the Northern Territory, Independent Schools Australia, and the National Catholic Education Commission. The Australian Capital Territory abstained from providing feedback at this point while noting its contributions to the Review via working groups, individual submissions, regular meetings and trial schools.

1.5 Feedback from surveys by subject

1.5.1 Design and Technologies

The survey (Appendix A) asked a series of 23 quantitative questions that sought agreement ratings[1], and which were grouped into 3 main sections: introductory elements, curriculum elements, and overall feedback. Summary of key feedback is as follows:

- *Introductory elements*: Between 64% and 80% of respondents agreed or strongly agreed with the statements related to introductory elements. The level of agreement was highest for the rationale being clear about the importance of the subject (80%) and the aims identifying the major learnings that students need to demonstrate (74%). The level of agreement was lowest for the statement that the strands and sub-strands provide a coherent organisational structure (64%).

[1] These questions had been set up as compulsory in Survey Monkey and included 5 options: Strongly agree, Agree, Disagree, Strongly disagree and Don't know. Percentages of respondents who agreed or strongly agreed are based on all respondents including those that selected the Don't know option.

- *Curriculum elements:* Between 52% and 70% of respondents agreed or strongly agreed with the statements related to curriculum elements. Responses were most favourable in relation to the band level descriptions providing a clear overview of learning at band levels (70% agreed or strongly agreed), and the achievement standards clearly describing the expected quality of student learning (69% agreed or strongly agreed). Respondents were least like to agree or strongly agree with the proposition that the content elaborations provide useful illustrations and suggestions (52%) and that they provided a range of contexts that support teachers to meaningfully integrate the general capabilities and cross-curriculum priorities (53%). In addition, respondents were also asked whether the amount of content in the content descriptions can be covered in each band. More respondents disagreed or strongly disagreed (52%) with the statement than did agree or strongly agree (41%).
- *Overall feedback*: This section asked a set of questions covering the terms of reference (TOR) of the Review and what it set out to achieve, as well as whether the introductory sections provide important information. While 74% of respondents agreed that the introductory sections provide important information, statements directly related to the 5 TOR received lower agreement (between 38% and 51% agreed or strongly agreed). The statement 'Curriculum content has been refined, realigned and decluttered' received the least favourable responses with 31% of respondents agreeing or strongly agreeing and 63% disagreeing or strongly disagreeing.

Based on levels of agreement/disagreement expressed in the survey data, key areas of concern for the revised Design and Technologies curriculum could lie in:

- the perceived manageability of curriculum content (52% disagreement);
- the content descriptions not being seen as clear about what should be taught (44% disagreement with the relevant proposition) and, perhaps relatedly
- the learning described in the achievement standards not being seen as aligning with essential content that students should be taught (41% disagreement with the relevant statement); and
- the perceived usefulness of content elaborations for planning teaching of content (42% disagreement).

The agreement ratings by survey respondents suggest that about half of them see the objectives of the Review met.

Open-ended feedback captured in the survey suggests that a small subset felt that sections have improved reflecting a more streamlined curriculum. Of particular note was a pattern in comments indicating that the separation of Foundation year achievement standards and content descriptions is a positive move.

A number of suggestions to remove content were made with some respondents suggesting removing Technologies altogether from the curriculum in the early years. Relatedly, there were concerns around the age-appropriateness of the proposed inclusion and sequencing of content within the Design and Technologies subject. This included issues with the number of prescribed contexts that need to be taught and assessed in Years 7 and 8 with a view to simplify further and focus on the development of foundational skills; and that learning design should be removed in F-2 or F-6 as the concepts and learnings are well above age related understandings and capabilities. Several respondents expressed a concern that the knowledge, understanding, and skills expected from students in some strands and sub-strands is too high.

Of further note were comments that argued for shifting the balance of the Design and Technologies curriculum from theoretical knowledge to practical skills.

Comments on the clarity of language were among the more prevalent ones with content descriptions seen as too wordy, too broad, and non-user friendly.

Several respondents expressed a concern about the included content in food and textiles technology.

Within the theme, *Implementation*, responses felt that support in the way of qualified teachers, classroom resources and funding is needed. As was the case with responses to the survey statements, open-ended feedback was dominated by respondents who commented on the Y7-10 curriculum.

Overall survey results for Design and Technologies are dominated by respondents who self-identified as school professional staff – teachers, school leaders and schools constitute 88% of all respondents. The survey results are further dominated by respondents who commented on the Y7-10 curriculum (66%), and respondents who were based in Queensland (71%). The latter makes it likely that the overall survey results were particularly affected by the Queensland-specific context in which the Australian Curriculum is implemented.

1.5.2 Digital Technologies

Summary of key feedback is as follows:

- *Introductory elements*: Between 68% and 83% of respondents agreed or strongly agreed with the statements related to introductory elements. The level of agreement (strongly agreed and agreed) was highest for the statements on the rationale being clear about the importance of the subject and the aims identifying the major learnings that students need to demonstrate (both 83%), and lowest for the statement that the key connections section identified the key opportunities to connect with other learning areas (68%). The proposition that the strands/sub-strands and core concepts are clear about what is important in the subject attracted the highest levels of disagreement (29% disagreement).
- *Curriculum elements*: Between 55% and 73% of respondents agreed or strongly agreed with the statements related to curriculum elements. Responses were most favourable in relation to the band level descriptions providing a clear overview of learning at band levels (73% agreed or strongly agreed), and the content descriptions specifying the essential knowledge, understanding and skills that should be learned (72% agreement). Respondents were least like to agree or strongly agree with the proposition that the content descriptions make it clear to teachers what should be taught (55%). Respondents were also asked whether the amount of content in the content descriptions can be covered in each band. About as many respondents expressed agreement as did express disagreement (both 47%).
- *Overall feedback*: This section asked a set of questions covering the terms of reference (TOR) of the Review and what it set out to achieve, as well as whether the introductory sections provide important information. While 76% of respondents agreed that the introductory sections provide important information, statements directly related to the TOR received lower agreement (between 48% and 61% agreed or strongly agreed). The statement ‘Curriculum content has been refined, realigned and decluttered’ received the least favourable responses with 48% of respondents agreeing or strongly agreeing and 44% disagreeing or strongly disagreeing.

Based on levels of agreement/disagreement expressed in the survey data, key areas of concern for the revised Digital Technologies curriculum could lie in:

- the perceived manageability of curriculum content (47% disagreement);
- all presented aspects of the achievement standards (disagreement of between 34% to 39%);
- the clarity of content descriptions about what should be taught (42% disagreement with the relevant proposition) and, perhaps relatedly
- the perceived usefulness of content elaborations for planning teaching of content and as providing a arrange of context for integrating the cross-curriculum priorities and general capabilities (35% and 33% of disagreement).

The agreement scores for the 5 TOR statements suggest that about half of the survey respondents see the objectives of the Review met.

Open-ended feedback captured in the survey indicates that there was support for separating the Foundation year from the Foundation to Year 2 band and that the inclusion of Aboriginal and Torres Strait Islander perspectives was also supported. There was also some support for the inclusion of Privacy and Security in

the current environment; however, also mixed feelings about it since it would require time to cover the required content.

Implementation issues was a notable theme that emerged from open-ended survey feedback with respondents suggesting support was required in the way of professional development but also classroom resources and funding for implementing the revised curriculum.

Some respondents remarked that the language of the curriculum is (still) too complex, particularly for generalist teachers.

Overall survey results for Digital Technologies are dominated by respondents who self-identified as school professional staff (teachers, school leaders and schools constitute 84% of all respondents). Overall survey results are further shaped by respondents who were based in Queensland – these constituted 57%. The latter makes it likely that the overall survey results were particularly affected by the Queensland-specific context in which the Australian Curriculum is implemented.

1.5.3 Technologies overall

With few exceptions, Digital Technologies respondents expressed higher levels of agreement than Design and Technologies respondents. Despite this, the patterns of agreement shown by both groups of respondents is very similar: when the 23 agreement statements from the survey are ranked according to the level of agreement they received, the ranking is almost identical for both groups. Both groups expressed most agreement with some elements of the introductory sections, in particular with the formulation of the rationale and aims, but also with the key connections identifying the most relevant general capabilities and cross-curriculum priorities.

Both groups were notably less likely to see that the content elaborations supported teachers to integrate the cross-curriculum priorities and general capabilities and that they provided useful illustrations for teachers. Both groups were also far less positive about the learning described in the achievement standards aligning with essential content that should be taught and about the proposition that content descriptions make it clear to teachers what should be taught. Similarly, both groups expressed their lowest level of agreement for the 5 TOR statements and the proposition that the amount of content can be covered in each band.

Open-ended comments on the curriculum for both subjects supported the separation of the separation year and there were other expressions of supporting other aspects of the revised curriculum. Critical views in relation to both subjects concerned the clarity of language used in the curriculum, the amount of content to be covered and, somewhat related, the perceived need for implementation support.

1.6 Feedback from email submissions

Many respondents saw improvements to the curriculum. Within these comments was a recognition that this learning area would equip students with the necessary skills they needed for the future digital environment. However, whilst there was some feeling of improvements overall, there were also further recommendations for additions or changes. Some respondents called for further clarity to elements, particularly around the language of the overall curriculum and content descriptions to improve ease of readability, as well as the addition of guiding explanations and examples to support teachers.

There were also many calls for support for implementation, particularly around resourcing. Concerns were expressed about divides between well-resourced and poorly resourced schools, in terms of the ability to provide the appropriate technology to implement the curriculum. Concerns about manageability were also raised, with general views that the curriculum could be further refined or reduced to be manageable.

1.7 Jurisdictional feedback

Jurisdictional feedback on Technologies was varied, with all participating jurisdictions offering positive feedback as well as suggested further improvements. Aspects of the introductory elements received broad support. In terms of manageability, while there was acknowledgement that decluttering had taken place, was

also a pattern in views indicating that more is needed. Specific suggestions were provided by various jurisdictions.

Some jurisdictions felt that language and terminology remained dense and confusing with too much specialist language.

There were mixed views on the Privacy and Security strand with some endorsing this content and the approach. Others found this content and the approach taken to it confusing and felt it could be incorporated into existing content descriptions or placed under the Digital Literacy capability.

A Foundation year was generally welcomed. There was broad support for the inclusion of Aboriginal and Torres Strait Islander Histories and Cultures, but some concerns were raised around tokenism, the need for cultural sensitivity, inclusivity, and deficit language.

1.8 Summary and conclusions

The consultations were public and largely anonymous so that stakeholders with varying degrees of understanding of the curriculum, educational issues and the TOR of the Review could participate.

The overall impression of the proposed revisions to the F-10 Australian Curriculum: Technologies from all feedback received through the 3 consultation channels is varied. There was a similar amount of feedback about aspects that have improved when compared to aspects that need further improvement.

In both subjects, there was overall support for improved clarity and usefulness of some of the introductory sections of the curriculum. In particular the revisions to the rationales for Technologies and the 2 subjects were seen to make the importance of each of the subjects clearer. The changes to the aims were clear and identify the major learnings that students need to demonstrate.

The separation of the Foundation year from Years 1-2, in both subjects, was viewed by stakeholders as a positive update due to its alignment with the Early Years Learning Framework and reducing the cognitive load for students.

The revisions and refinements made to the band level descriptions were seen to provide a clear overview of learning at band levels. This included the new level description written for the Foundation year.

Content elaborations that provide opportunities to recognise and explore Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority were regarded as a positive inclusion.

While there was general support for some aspects of the revised curriculum, there was also a strong pattern of feedback indicating that aspects of the revised Australian Curriculum: Technologies need further improvement.

Stakeholder feedback indicated that further review to some of the strands/sub-strands and core concepts was needed to make clear what is important and to ensure the knowledge, understanding and skills expected from students in some strands and sub-strands is age appropriate. There were also suggestions to refine the sub-strands to reduce the complexity of the curriculum and to improve the coherence of the organisational structure.

Stakeholder feedback also considered that further revision was needed to the achievement standards, particularly the alignment of the learning described in some achievement standards with the essential content that students should be taught.

While some aspects of content descriptions were acknowledged as having improved, the consultation feedback also found indications that the content descriptions should be further strengthened to remove ambiguity in wording and be clearer and easier to understand what should be taught. Furthermore, concerns were raised about the need for support in the way of more planning advice. Resources and examples that relate directly to the content descriptions should be made 'easily' available. These should be easily downloadable with multiple elaborations to add to the clarity, and also show recommended time to teach.

There were also suggestions and recommendations to improve or strengthen the perceived usefulness of some content elaborations. These included suggestions to refine some content elaborations to provide

useful and more concrete illustrations and suggestions and a range of contexts that support teachers to make meaningful connections with the general capabilities and cross-curriculum priorities. This was seen to be particularly evident in Digital Technologies.

There were also concerns about the perceived manageability of content, with general views that the curriculum content had been added to rather than refined, realigned, and decluttered. Along with the view that there is still far too much to be covered given the allocated hours were suggestions to look for further opportunities to reduce content. There was not unanimous support for a particular element in the curriculum that should be removed; however, some suggested the addition of the new sub-strand in Digital Technologies contributed significantly to unmanageability.

2. Introduction

2.1 Overview of the Review

On 12 June 2020, Australia's education ministers tasked ACARA to undertake a review of the Australian Curriculum from Foundation to Year 10 (the Review) to ensure it is still meeting the needs of students and providing clear guidance on what teachers need to teach. ACARA has worked in close consultation with the profession and key stakeholder groups to complete the Review. The Review looks over the existing 3 dimensions of the Australian Curriculum; that is, the 8 discipline-based learning areas, 5 general capabilities and 3 cross-curriculum priorities. To improve the F-10 Australian Curriculum, ACARA's broad aims are to refine, realign and declutter the content of the curriculum within its existing structure.

In preparing for the Review, ACARA considered the latest research and international developments, and consulted with practising teachers, curriculum experts, key academics and professional associations. Furthermore, the Technologies Curriculum Reference Group and the Teacher Reference Group have been established to provide advice and feedback, with members nominated by state and territory education authorities and non-government sectors. To reflect the focus on primary schools, the Primary (F–6) Curriculum Reference Group and the Teacher Reference Group have also been created, which helped give advice and feedback on how to improve the curriculum for the youngest students.

2.2 Proposed revisions to Technologies

From this research, teacher feedback and work with the reference groups, ACARA identified the key areas where the Technologies curriculum could be improved. The current Technologies Curriculum includes 2 subjects – Design and Technologies, and Digital Technologies. Proposed revisions to these subjects have been informed by a considerable focus in states and territories and nationally to support implementation of both subjects, particularly Digital Technologies.

The consultation version of the Australian Curriculum: Technologies includes the following proposed revisions:

- Key ideas have been replaced with core concepts that underpin the 2 subjects – Design and Technologies, and Digital Technologies – within the Technologies curriculum.
- New Foundation year content has been developed for both subjects to better support learning in the early years.
- The number of Technologies contexts in F–4 Design and Technologies has been reduced to improve manageability of content in primary years.
- Content in F–6 Digital Technologies has been reduced by removing duplication of content with Mathematics about data.
- The Digital Technologies curriculum has been aligned to the revised ICT Capability, now known as 'Digital Literacy'; this includes developing a new sub-strand called considering privacy and security, to provide an explicit place in the curriculum for students to develop these skills
- Digital Technologies content descriptions have been unpacked to provide greater clarity to teachers about what to teach.
- Achievement standards have been refined to highlight the relationship between the *knowledge and understanding* strand, and the *processes and production skills* strand.
- Cognitive alignment has been strengthened between content descriptions and achievement standards.
- Content elaborations have been improved to show suggestions for authentic and meaningful alignment to general capabilities and cross-curriculum priorities.

2.3 Stakeholder consultation

As part of the Review, ACARA invited public feedback on its proposed changes to the curriculum. There were 3 channels through which feedback was received.

2.3.1 Online survey

The main channel through which the public participated in the consultation was an online survey, which was set up in Survey Monkey and administered by ACARA. Separate surveys had to be completed to provide feedback on the proposed revisions to the 2 distinct but related Technologies subjects – Design and Technologies, and Digital Technologies. The online survey was conducted anonymously, making it impossible to identify individuals or groups who completed separate surveys for both subjects. Each survey captured stakeholder demographics and organisational details (as declared by the respondent), as well as feedback on the proposed revisions to the introductory sections (rationales, aims, organisational structure, key connections and key considerations), curriculum content (band level descriptions, achievement standards, content descriptions and content elaborations). The survey sought overall feedback in relation to the proposed revisions within the scope of the review (an outline of the questionnaire is given in attachment A). The survey posed 23 quantitative statements to capture the level of agreement of respondents to these statements. One of the statements was “The amount of content can be covered in each band”. Respondents who disagreed or strongly disagreed with the statement were asked an open-ended question about what content should be removed or what revisions were needed to make the amount of content more manageable. All survey respondents could also leave open-ended feedback of a general nature as well as open-ended feedback that was band-level specific at the end of the survey.

2.3.2 Email submissions

A second channel for the public to provide feedback on the proposed revisions to the Australia Curriculum was via written feedback by email to engagement@acara.edu.au.

2.3.3 Jurisdictional feedback

The state and territory education authorities and national non-government sectors were separately invited to provide their jurisdiction feedback in written form. In these cases, the invitations were accompanied by guidelines that reflected the online survey structure.

2.3.4 Consultation details

The consultation period ran over 10 weeks between 29 April and 8 July 2021. Relevant materials outlining the proposed changes to elements of the Australian Curriculum and the associated reasons for them were also made available on ACARA’s purpose-built consultation website during that time. Stakeholders were encouraged to consider these materials prior to, or while, responding to the survey questions or providing feedback by email.

Participation in the online survey was anonymous for individual respondents. Groups who participated in the online survey were asked to provide the name of the organisation they represented. Feedback received via email submissions sometimes, but not always, contained information about the identity of the participant. Individual details were removed by ACARA prior to being provided to ISSR, while information related to a group or organisation was retained and shared with ISSR.

The public and largely anonymous character of the consultations allowed people and organisations with various understandings of the curriculum and the proposed changes to the curriculum to participate in the consultations. Some aspects of the Review received national media attention at the time of the consultation period, which may have stimulated participation by particular groups.

2.4 This report

2.4.1 Purpose of report

During the consultation period, qualitative and quantitative data were gathered in relation to various elements of the Australian Curriculum and various band/year levels. Some of the feedback was very detailed in talking about the Australian Curriculum, the proposed changes, and/or suggestions for further improvement to the Australian Curriculum. All feedback, including detailed and extensive submissions, has been read and considered by the ACARA review team in further revising the Australian Curriculum.

ISSR has been contracted by ACARA to undertake an independent analysis of the qualitative and quantitative data. The purpose of this report is to provide an analysis of the feedback collected to support ACARA personnel to make recommendations about refinements to the curriculum.

The key interests of this report lie in:

- understanding the profile of stakeholders who participated in the consultations for Technologies;
- understanding the level of stakeholder agreement and disagreement with different elements of the revised Technologies curriculum;
- identifying the areas of the revised Technologies curriculum that stakeholders perceive most positively and those deemed in need of further refinement;
- gauging stakeholder perceptions about whether the Review achieved its overall objectives within the terms of its reference; and
- highlighting the potential similarities and differences in the above based on the level of the curriculum (Foundation to Year 6 [F-6], Y7-10 and F-10) and stakeholder demographics.

2.4.2 Structure of report

The following section (3) describes the treatment of data captured through the different consultation channels, and the methods of analysis and presentation. Section 4 presents information on participating stakeholders before results from the consultation are shown in Sections 5, 6 and 7. The structure of presenting the results follows the structure of the 3 channels of participation – survey results are included in Section 5, feedback from the open email submissions in Section 6 and feedback from jurisdictional submissions in Section 7.

3. Data processing, analysis and presentation

3.1 Data transfer

ACARA provided responses to the survey and those received via email to ISSR through a secure project folder in the ACARA cloud. Responses from the survey were only included when they had been completed, which required the participant to continue to the final page. The final page was determined by the selections made by the respondent. ACARA also provided ISSR with the written jurisdiction feedback and the received email submissions.

Individual feedback received via emails was de-identified by ACARA prior to making it available to ISSR. Identification of organisations among email submissions was maintained so that the participating organisations could be listed in the reporting. Jurisdictional feedback also remained identifiable for documentation in the reporting.

3.2 Data cleaning – survey data

All quantitative questions had been set up as compulsory in Survey Monkey and the resulting data overwhelmingly adhered to the pre-given questionnaire structure and response formats so that minimal data cleaning was required. In a few cases participants had information recorded as an individual as well as a group respondent. This could occur where respondents identified as either of the 2 and then later went back to the relevant survey page and changed their response to the respectively other respondent type, which triggered a trajectory that captured more information on either the individual or group characteristics of the respondent. Each of these cases was scrutinised and the information retained that most likely reflected the stakeholder type based on the information provided. For example, a record that indicated an individual respondent who was a primary school teacher in a Government school in a metropolitan area, and that also indicated a group response for a Government school in a metropolitan area that represented one person was determined to be the former and the latter information was deleted from the cleaned dataset.

Leading and trailing blanks were removed from open-ended responses to prepare the textual data for coding while all content of such responses was retained as it had been given.

3.3 Coding of open-ended responses

3.3.1 Developing code frame

ISSR in consultation with ACARA developed a code frame that defined the themes and subthemes that emerge from the open-ended responses and established rules for coding such open-ended responses to those themes and subthemes. The code frame was developed in 3 steps.

Step 1 - Scrutinising the survey questions developed, and associated materials, for key themes and categories

Prior to receiving any survey responses, 2 qualitative researchers scrutinised the proposed curriculum changes, along with the survey questionnaires, to provide an initial outline of the themes they expected to see in the data. This outline was updated iteratively as the analysis in Step 2 and 3 continued.

Step 2 - Inductive analysis of interim responses

Inductive analysis commenced once the first survey data became available. Once the survey responses were received, the qualitative researchers read through the open-ended feedback and familiarised themselves with the data. Together, they then generated themes that were linked to the data set and began coding the data without reference to the outline of themes developed in Step 1. This approach enabled the researchers to be open to new patterns in the data and to make revisions to the draft outline of the code frame.

Step 3 - Content analysis of interim responses

Content analysis was then employed. The 2 researchers coded a portion of the data independently using the developed draft code frame. They then met to discuss commonalities or differences in coding the data, until agreement was reached. In this activity, the researchers noted nuances in themes across learning areas, cross-curriculum priorities and general capabilities and the code frame underwent a revision to incorporate these nuances.

The code frame was then examined against a sample of later arriving email submissions as well as some of the jurisdictional and national sector peak body feedback which established that the developed codes/themes also largely applied to feedback received through these channels. During all these steps ISSR consulted ACARA staff who sense-checked the evolving code frame and who provided inputs into its evolution.

3.3.2 Coding

Open-ended responses from 3 survey fields were coded according to the developed code frame. This concerned responses to the question “What content should be removed or what revisions are needed to make the content more manageable?” This question was asked when respondents disagreed or strongly disagreed with the preceding statement “The amount of content can be covered in each band”. The other 2 open-ended fields could be used by all respondents. One prompted the respondents to provide comments about general aspects of the revised curriculum that have improved and the other prompted them to provide comments about general aspects of the revised curriculum that needed further improvement (for the survey questions see Appendix A).

In addition, respondents were also asked whether they wanted to provide open-ended feedback for individual year/band levels, and if that was the case, which year/band levels this concerned. Respondents who indicated they wanted to provide such specific feedback were presented with the same 2 prompts for each year/band level that they had selected. Both the feedback captured under the more general prompts as well as feedback captured in the year-level specific fields have been considered by ACARA in revising the Science curriculum post consultation. However, the year-level specific feedback was deemed as too specific to be meaningfully included in high-level reporting and was not coded to themes.

Consistent with the treatment of open-ended responses captured through the online questionnaire, written feedback received via emails (including the template emails) was coded on the basis of the code frame while year-level specific feedback coming through this channel has been considered by ACARA without it being coded to themes for the reporting here. The coding of jurisdictional feedback was undertaken in a similar way (also see Section 3.4.4).

Open-ended feedback expressed by the same individual or group/organisation could contain multiple themes. In this case the different themes were coded to the same stakeholder record.

3.4 Data analysis and presentation of results

3.4.1 Information captured from the 3 channels for providing feedback

The 3 channels of providing feedback were associated with methodological differences. Survey participants adhered to a pre-given structure consisting of closed questions seeking agreement ratings and prompting for open-ended feedback of a general or year/band level specific nature. The survey also captured demographic characteristics of respondents including type of stakeholder, state/territory, school sector and remoteness of school. This allowed treating this data like any other survey data by calculating descriptive statistics such as frequencies, percentages and breaking down results by respondent characteristics and by presenting the descriptive statistics in tables or graphs.

In most cases, the email submissions did not adhere to the structure and prompts of the survey. They constituted unprompted, mostly open-ended feedback that sometimes came with additional materials attached. While some submissions contained some information about the stakeholder, such as profession or organisation name, the demographic characteristics that were systematically captured in the survey were

largely not provided as part of the email submissions. The analysis of information from the email submissions therefore focuses on the themes and subthemes that emerged without assessing stakeholder differences.

Eight jurisdictional education authorities and 2 national sector peak bodies were explicitly invited to participate in the consultations and were given guidelines for their participation. These guidelines reflected the structure and content of the online survey. However, the degree to which jurisdictions adhered to these guidelines varied and feedback was overwhelmingly of an open-ended nature. As was the case with some of the email submissions, the feedback received from the jurisdictions tended to be comprehensive.

To further take account of the methodological differences between the 3 consultation channels, feedback received through each channel is reported in a separate section.

3.4.2 Reporting of online survey data

The reporting of feedback is preceded by information on participating stakeholders to aid interpretation of the overall results. This information includes the level of the curriculum that was selected by respondents, their respondent type (e.g. teacher, parent, academic), the state or territory they were based in, and, for respondents who identified as teachers, school leaders, parents, students and schools, the school sector and remoteness area of the relevant schools.

Overall results on the 23 questions are presented as stacked bar charts that show the percentage breakdown across the 5 response categories (strongly agree, agree, disagree, strongly disagree, don't know). Across the 5 categories, responses add up to 100%.

Unless indicated otherwise, the prevalence of themes expressed by stakeholders in open-ended comments is reported as a percentage based on the total number of respondents (e.g., 11% of survey respondents expressed theme A). Where the same respondent expressed multiple themes the respondent was included in the percentages for each of the reported themes. The number of respondents who provided open-ended feedback is also reported.

Differences between stakeholder groups are explored via bar charts that show the percentage of the combined strongly agree/agree responses for different stakeholder categories. This percentage is referred to as the *level of agreement* in the report. The level of agreement is expressed as a proportion of all respondents including those who selected the 'don't know' option. Stakeholder categories are included in such comparisons when they have 30 or more respondents. Stakeholder group dimensions considered in the analysis of group differences are type (e.g. teacher, academic, parent), state or territory, school sector and school location.

Potential differences between stakeholders who responded to different levels of the revised curriculum (F-6 6, 7-10 and F-10) are also assessed by comparing the relevant percentages of the combined strongly agree/agree responses.

Percentages are rounded and may not exactly add up to 100% in tables or graphs. The original survey statements were abbreviated to 80 characters in the graphs to ensure readability. Appendix B documents which survey statements were abbreviated in which way for the reporting.

3.4.3 Reporting of email submissions

The reporting of email submissions consists of identifying the key themes that emerged after coding, based on the proportion of respondents who expressed the themes and subthemes. This is accompanied by drawing out examples that reflect different dimensions or aspects within a theme. Particular attention was given to drawing upon examples that represent the nuance within the data, especially within the subthemes that include learning area specific detail. Further, attention was given to drawing upon examples to illustrate dominant or leading sub themes, defined by being discussed by a relatively large number of respondents. While the reporting of the survey data makes use of percentage breakdowns to explore differences between stakeholder groups (where possible), the analysis of data from email submissions summarises general trends and themes from the feedback. This takes account of the unstructured way the information was provided across the many submissions.

3.4.4 Reporting of jurisdictional feedback

The reporting of jurisdictional submissions consists of identifying the key themes that emerged after coding, based on the proportion of jurisdictional respondents offering feedback on the themes and subthemes. This is accompanied by direct quotes that reflect different dimensions or aspects within a theme. Particular attention was given to drawing out examples that represent nuance within the data. Attention was also given to providing examples that illustrate leading themes and sub themes, identified by the amount of feedback received in relation to themes and sub themes.

Additionally, the invited jurisdictions were encouraged to respond to the 6 survey statements from the Overall feedback section of the survey. Five of the 9 participating jurisdictions (Tasmania, Queensland, Western Australia, Northern Territory and Independent Schools Australia) provided responses to these questions. Analysis of data from jurisdictional submissions thus summarises general trends and themes from the qualitative feedback, synthesising this with feedback from the 5 jurisdictions who responded to the 6 survey statements.

A summary of positive feedback and aspects that need further attention, as identified by each jurisdiction, are included as Appendix G.

3.4.5 Multiple participations

The consultations were open to the public without imposing protocols that confirmed the identity of participants or that participants submitted their feedback only once. Based on the names of organisations captured in the survey and those self-reported in email submissions, it is apparent that some organisations have completed the on-line survey as well as provided an email submission in relation to the same learning area, subject, general capability or cross-curriculum priority. It also appears that in some cases the same organisation submitted multiple survey responses for the same element of the curriculum. In some cases, state-based affiliate organisations provided feedback that was separate and additional to the feedback provided by their national parent organisations, which presented the consolidated feedback of that organisation. It is further possible that individuals participated multiple times for the same element by completing more than one survey (using different computers), by completing a survey as well as providing an email response or by providing multiple email submissions. The extent to which individuals and organisations participated in the consultation about the particular elements of the Australian Curriculum multiple times cannot be determined. Multiple participations could have particularly influenced the consultation results where the number of participants was low.

3.4.6 Interpretation of results

As outlined earlier, the consultation process used different channels of capturing feedback, which was associated with methodological differences noted in Section 3.4.1. The overall character of the consultation was public, and it was anonymous for participating individuals. In principle, everyone could participate regardless of their relation to, and their understanding of, the Australian Curriculum or the TOR of the Review. It is possible that in some cases the same individual or organisation expressed their voice more than once in relation to the same elements of the Australian Curriculum that was in scope of the Review. Results of the consultation included in this report should be seen in this context. They report perceptions of participants captured through different channels in the consultation process without assuming that these are representative of relevant stakeholder groups. They present perceptions as they were conveyed by stakeholders without qualifying them against the proposed revisions to the curriculum and without making assessments about their professional or other value.

4. Stakeholder participation

Table 1 shows the number of times the online survey was completed for the 2 subjects, as well as the number of email submissions received and the number of jurisdictional stakeholders who provided written feedback. The online survey was completed 133 times for Design and Technologies and 104 times for Digital Technologies. Thirty-five emails were received for the learning area Technologies of which 20 addressed either both subjects or the learning area generally. Nine of the 10 invited jurisdictions and national sector peak bodies participated in the consultations with all of them either addressing both subjects or the learning areas overall. More detailed information about stakeholder participation is included in the survey, email submission and jurisdictional feedback-specific sections of this report.

Table 1: Number of participations, Technologies consultations

	Online survey	Email submissions	Jurisdictional feedback
Design and Technologies	133	5	0
Digital Technologies	104	10	0
Both or at level of learning area	na	20	9
Total	**237^**	**35**	**9**

^ It is possible for the same respondent to provide feedback on both subjects by completing the online survey twice, one survey per subject so that the total indicates the number of completions rather than the number of unique respondents.

Reporting of stakeholder feedback is undertaken on the basis of a learning area, general capability or cross-curriculum priority. In some cases, email submissions were of a general nature and could not be allocated to a specific learning area, general capability or cross-curriculum priority. These were mainly concerned with general comments around values or virtues that should be taught, the extent to which the curriculum content was inclusive of diverse student needs, evidence-based, decluttered and age-appropriate. Some of these emails had a focus on play-based learning in early years.

There were 108 of those submissions and while their content does not fit into any of the learning area, cross-curriculum priority and general capability specific consultation reports, they have all been considered by ACARA in further refining the Australian Curriculum.

5. Survey

Results reported in this section present perceptions as they were expressed by survey respondents. These perceptions are not qualified against the proposed revisions to the curriculum and they are not assessed for their professional or other value. Survey respondents completed subject-specific surveys, which is why the reporting of survey results is presented separately for the 2 subjects.

5.1 Design and Technologies

This section starts by drawing a profile of participants who provided feedback on the Design and Technologies curriculum before presenting the feedback of those participants.

5.1.1 Respondent profile

Table 2 shows the types of stakeholders who completed the online survey as an individual or as a group. About 62% of survey respondents were teachers. School leaders were the next largest respondent group (14%), followed by schools (12%). These 3 respondent groups constituted 88% of all survey respondents.

Table 2: Type of survey respondent, Design and Technologies

Type of respondent	n	Percent
Individual respondent		
Teacher	83	62.4%
School leader	18	13.5%
Other - Individual	4	3.0%
Group respondent^		
School	16	12.0%
Professional association	5	3.8%
University faculty	1	0.8%
Education authority	4	3.0%
Other - Group	2	1.5%
Total	**133**	**100.0%**

^ A list of participating groups (other than schools), which self-identified in the survey is provided in Appendix D.

Two thirds (66%) of survey respondents gave feedback on Y7-10 curriculum, about 1 in 5 (21%) respondents on F-6 curriculum and the remaining 13% gave feedback on F-10 curriculum (Figure 1).

Figure 1: Level of curriculum selected, Design and Technologies survey respondents

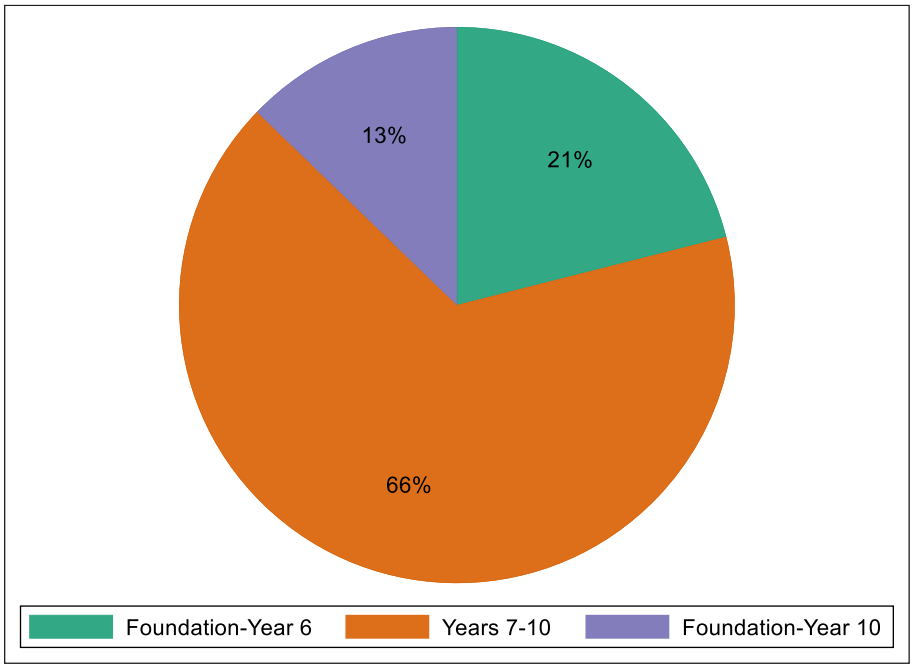
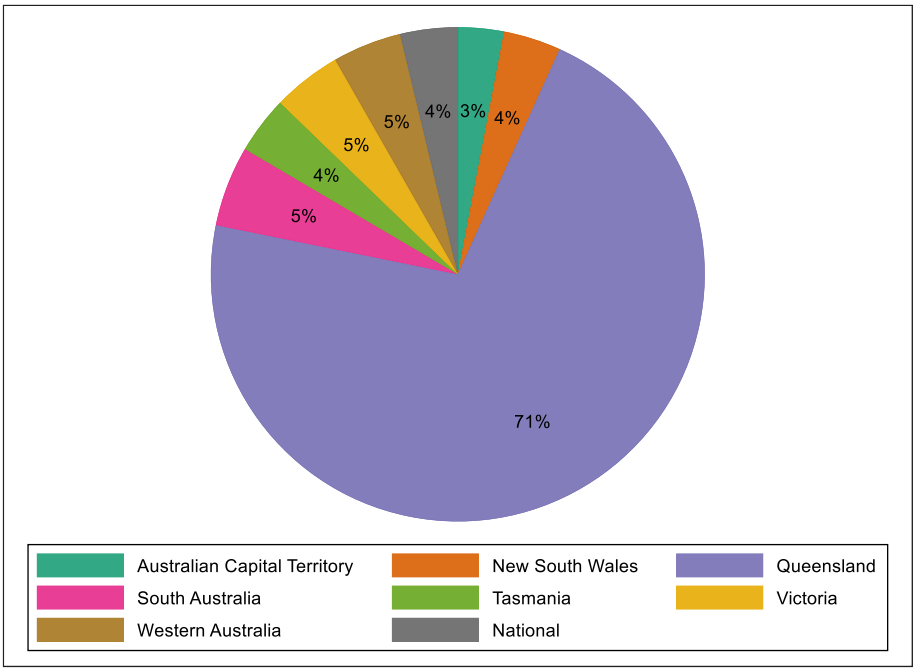


Figure 2 shows the distribution of survey respondents among the states and territories of Australia.

Figure 2: State of residence, Design and Technologies survey respondents



Queensland had the largest representation of survey respondents, with 71% of respondents based in that state. Respondents from Queensland thus over-represented their state population by 3.5 times (71% of all respondents versus 20% of Australia's population share[2]). Based on jurisdictional shares in the national population, the 2 largest states, New South Wales and Victoria, were particularly under-represented among survey respondents.

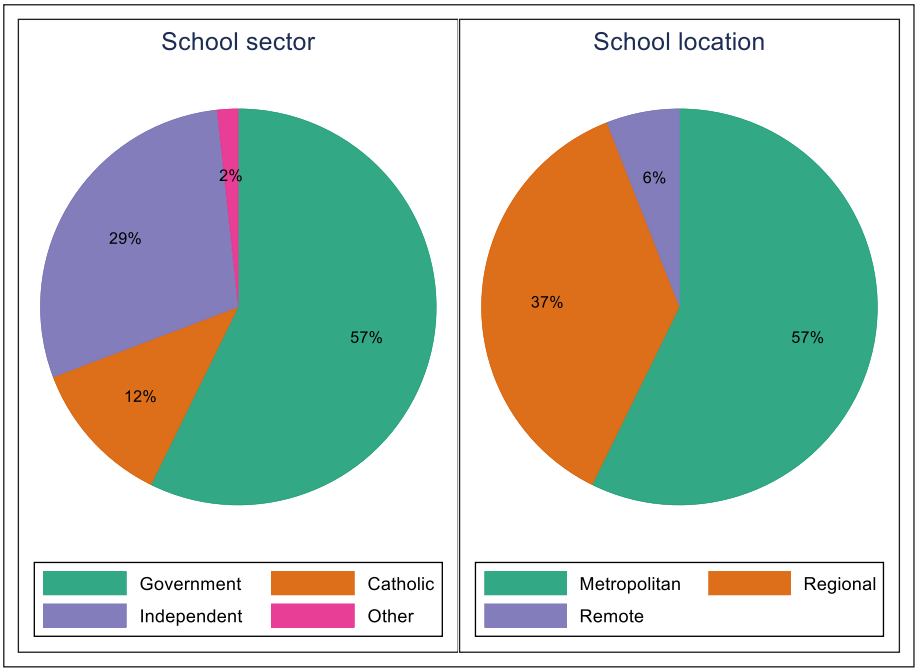
Respondents who identified as a teacher, school leader, school, student or parent were asked in which sector their (child's) school was and in which remoteness area it was located. About 57% of these

[2] Source: Australian Bureau of Statistics, National, state and territory population December 2020.

respondents indicated a Government school, 12% indicated the Catholic school sector and 29% the Independent school sector (left panel in Figure 3). As a point of reference, the student enrolment distributions in 2020 were 66% for Government, 19% for Catholic and 15% for Independent[3].

The right panel in Figure 3 also shows in which remoteness area their (child's) school was located. The majority of respondents (57%) indicated their school's location as metropolitan, 37% as regional and 6% as remote (Figure 3). These percentages compare with the following student enrolment distributions in 2020: 72% of students were enrolled in major cities (equivalent to metropolitan areas), 26% in regional areas and 2% in remote areas in 2020[4].

*Figure 3: School sector, Design and Technologies survey respondents^*



^ Teachers, school leaders, students, parents and schools.
'Other' responses in the pie charts relate to staff who worked across schools, parents who had children in multiple schools and, in the case of school sector, also to TAFE and University students.

Respondent summary and implications for overall results

Of the 133 completed surveys, 62% were submitted by teachers and 71% of stakeholders resided in Queensland. The overall survey results are therefore notably influenced by teachers and respondents who were based in Queensland.

Table 3: Most prevalent respondent characteristics, Design and Technology survey respondents

Respondent dimension	Category	n	Percent of all survey completions
Levels of curriculum	Y7-10	88	66%
State/territory	Queensland	95	71%
Type of respondent	Teacher	83	62%
School sector^	Government	67	50%
School location^	Metropolitan	67	50%

^This information was only captured from participating teachers, school leaders, schools, parents and students while the percentage in the last column is based on all respondents.

[3] ABS 2021, Schools, Australia 2020. https://www.abs.gov.au/statistics/people/education/schools/latest-release#key-statistics.
[4] ABS 2021, Schools, Australia 2020. https://www.abs.gov.au/statistics/people/education/schools/latest-release#key-statistics.

Two thirds of survey respondents (66%) gave feedback on Y7-10 curriculum and about half of all respondents related to Government schools and schools in metropolitan areas.

5.1.2 Survey results

Overall survey results for Design and Technologies are dominated by respondents who self-identified as school professional staff – teachers, school leaders and schools constitute 88% of all respondents. The survey results are further dominated by respondents who commented on the Years 7 to 10 curriculum (66%), and respondents who were based in Queensland (71%). The latter makes it likely that the overall survey results were particularly affected by the Queensland-specific context in which the Australian Curriculum is implemented. However, while some stakeholder details were captured during the survey, it is uncertain to which extent survey respondents are representative of stakeholder groups (e.g. to which extent participating teachers from Queensland were representative of teachers in Queensland).

Overall results

The general feedback part of the survey that sought respondent perceptions in relation to the curriculum/proposed changes to the curriculum contained 3 sections: Introductory elements, Curriculum elements and Overall feedback (see Appendix A). The presentation of the results focuses on feedback captured in these 3 sections and follows their structure.

The survey also captured feedback that was band-level specific. This feedback has been considered by ACARA in refining the curriculum. However, it is not reported here beyond the numbers of respondents who provided such detailed feedback.

Introductory elements

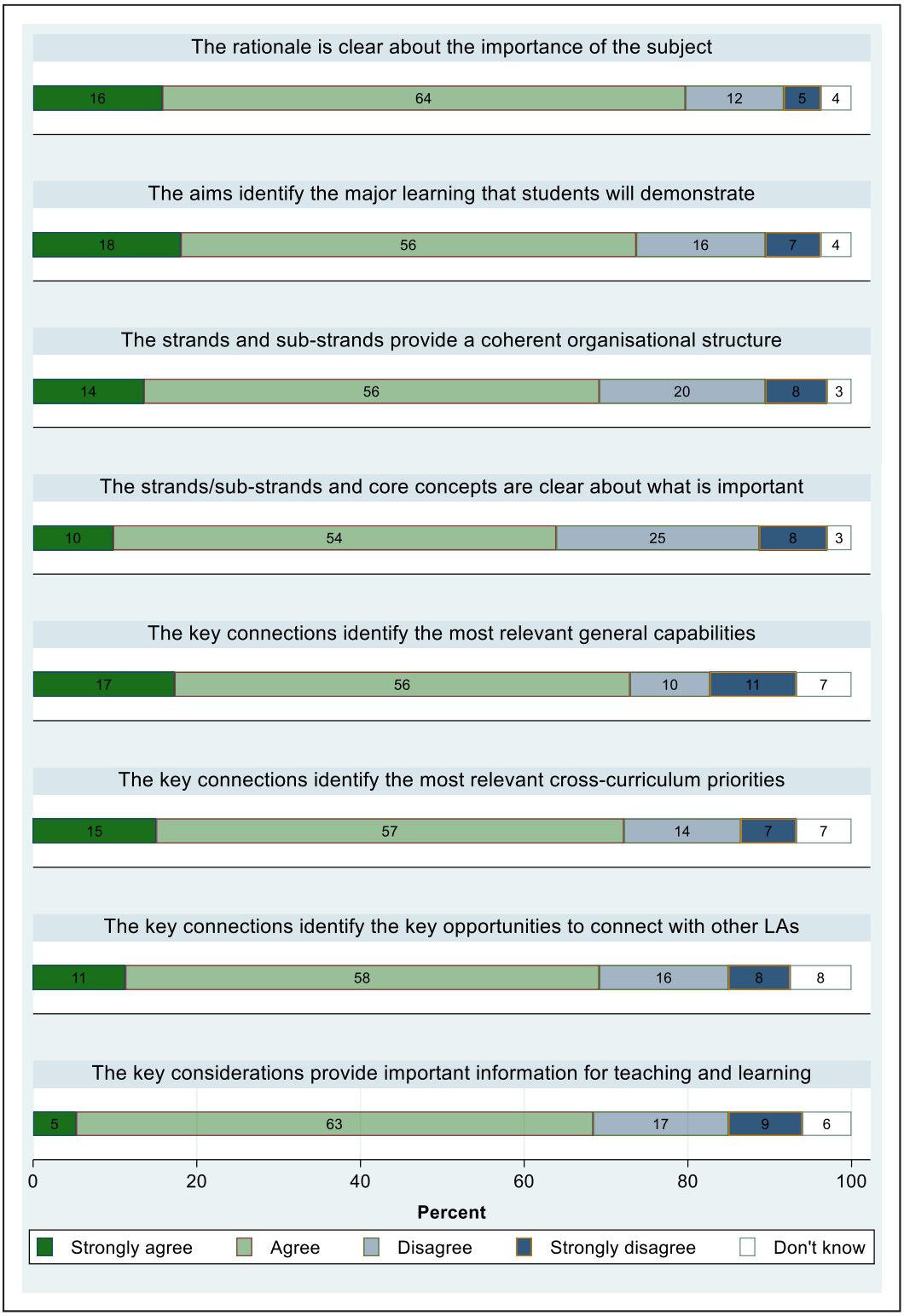
Respondents were presented with 8 statements in the Introductory elements section of the questionnaire and asked to give an agreement rating for each. These statements related to the rationale, the aims, the organisational structure, key connections and key considerations in the introductory sections of the curriculum. The results are reported in Figure 4.

Overall, between 64% and 80% of respondents agreed or strongly agreed with the presented statements. The level of agreement (strongly agreed and agreed) was highest for the first 2 statements: on the rationale being clear about the importance of the subject (80%) and the aims identifying the major learnings that students need to demonstrate (74%).

Levels of disagreement (strongly disagree and disagree) ranged from 17% to 33% and were inversely related to levels of agreement. They were lowest for the statement on the rationale being clear (17% disagreement) and highest for the proposition that the strands/sub-strands and core concepts are clear about what is important (33% disagreement).

The prevalence of ‘don’t know’ responses was highest for the statements on key connections and key considerations, which may indicate less familiarity with these elements in the introductory section of the curriculum among respondents compared with the rationale, aims and organisational structure of the revised Design and Technologies curriculum.

Figure 4: Introductory elements, Design and Technologies survey respondents

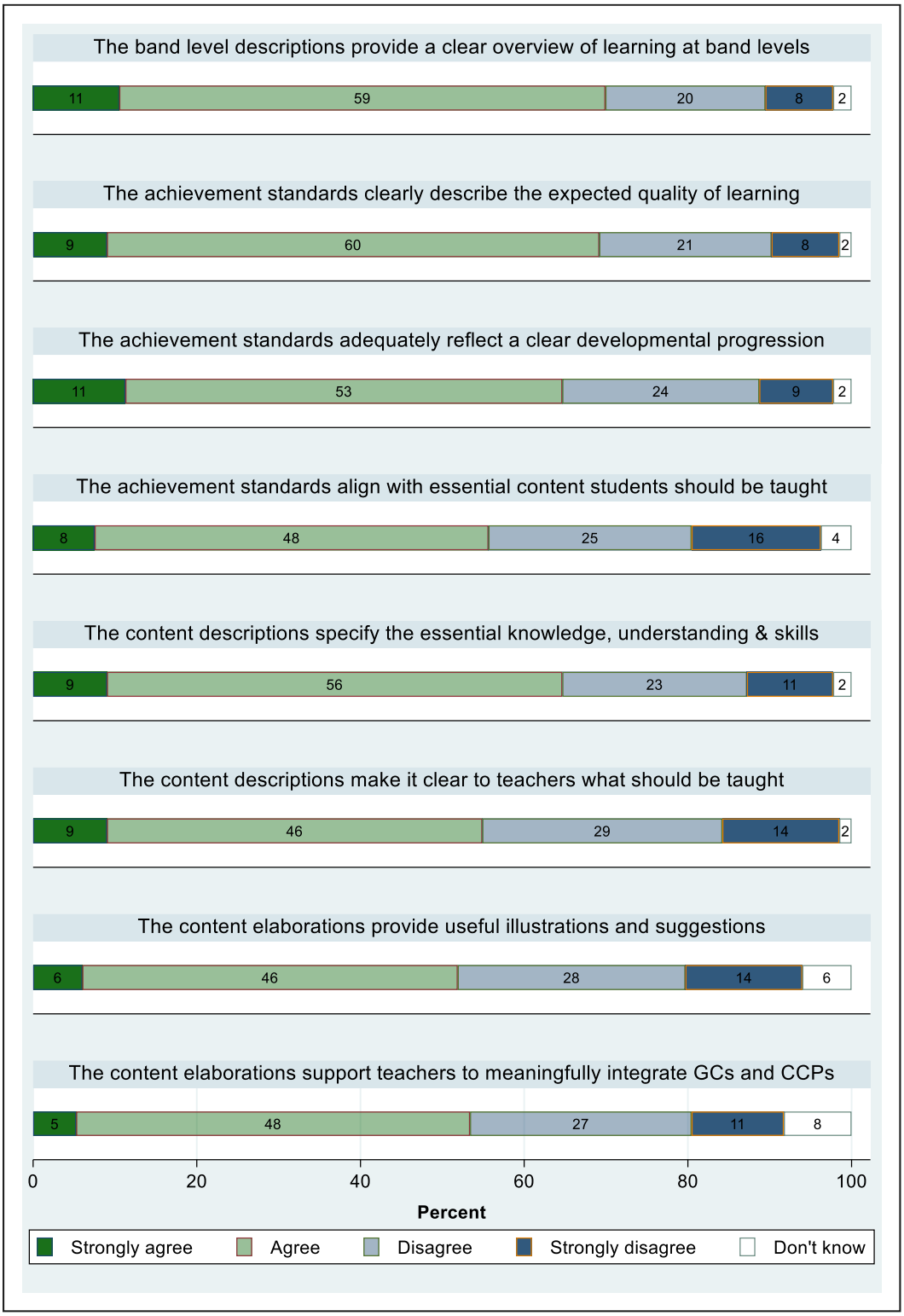


Percentages in the bars are rounded and may not add up to the % agreed and strongly agreed quoted in the text.

Curriculum elements

The next section in the questionnaire captured perceptions on 4 curriculum elements: band level descriptions, achievement standards, content descriptions and content elaborations. Overall results for 8 of the questions in this section are shown in Figure 5. Between 52% and 70% of respondents agreed or strongly agreed, and between 28% and 44% disagreed or strongly disagreed with the presented statements.

Figure 5: Curriculum elements, Design and Technologies survey respondents



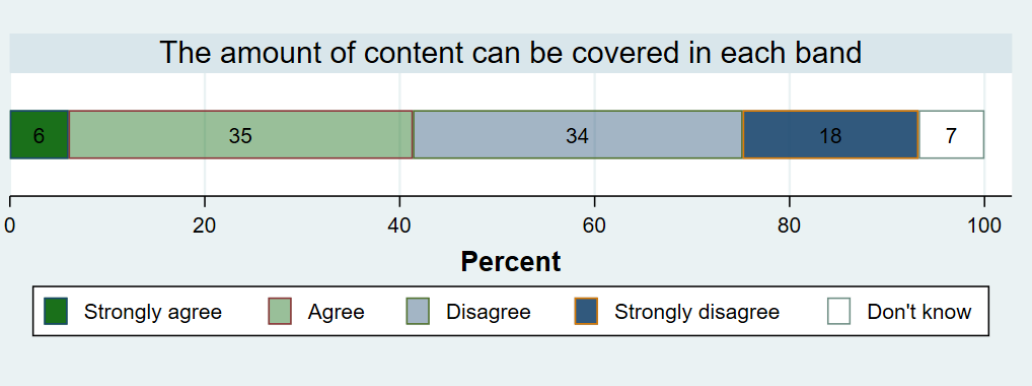
Percentages in the bars are rounded and may not add up to the % agreed and strongly agreed quoted in the text.

Responses were most favourable in relation to the band level descriptions providing a clear overview of learning at band levels (70% agreed or strongly agreed), and the achievement standards clearly describing the expected quality of student learning (69% agreed or strongly agreed). Fewer respondents agreed that the achievement standards reflected a clear developmental progression and that the content descriptions specified essential knowledge, understanding and skills (both 65%). Still lesser agreement was provoked by the propositions that the learning described in the achievement standards aligned with the essential content

that students should be taught (56%), that the content descriptions made it clear to teachers what should be taught (55%), that the content elaborations provide useful illustrations and suggestions (52%) and that they provided a range of contexts that support teachers to meaningfully integrate the general capabilities and cross-curriculum priorities (53%).

Respondents were also asked whether the amount of content in the content descriptions can be covered in each band. Here more respondents expressed disagreement (52%) than agreement (41%) (Figure 6).

Figure 6: Amount of content, Design and Technology survey respondents



The 52% of respondents who disagreed or strongly disagreed were asked a follow-up question to clarify what content should be removed or what revisions were needed to make the content more manageable. Of the 69 respondents who were asked this question, 45 provided a comment.

One third of the 45 respondents who provided a comment to this follow-up question were able to provide specific examples or ideas of content to remove or what revisions were needed to make the content more manageable. Other comments simply stated there was too much content to cover or were in relation to other aspects of the revised Design and Technologies subject.

All of these comments were coded according to the code frame (Appendix C). Table 4 presents the top 5 themes that emerged together with their prevalence based on all 133 Design and Technologies survey respondents. It is possible that a single response has utterances that span across multiple themes. As a result, a comment from a single respondent would be coded to more than one theme. Likewise, a single response could be coded to more than one subtheme.

The main themes were around *content that should be removed*, *manageability of content*, *clarity*, *content that should be added*, as well as *implementation* (although this was technically out of scope).

The leading theme around *content that should be removed* is not unexpected, given the question prompt. There were a range of comments on what to exclude. Some of the more common examples of what could be removed or reduced included:

- Removing the Design and Technologies subject from the F-6 curriculum due to not enough teacher capabilities, resources, or time to cover the amount of content.

  "Students should be focusing on literacy and numeracy only for F-6 years. The concepts and learnings for Design Technologies is well above age related understandings and capabilities and brings no benefit to a child's education." (Primary teacher, Queensland, Remote).

  "The whole technologies curriculum for F-6 needs to be removed - the curriculum is way too overloaded in the first place and having to make time for something that is not feasible is not good. Primary schools are not equipped with the necessary resources (especially remote schools) to teach these subjects. Wifi structure is unstable, and unless you have endless supply of money to fund the technologies subject you can't possibly teach this. Technologies should be subjects offered in High School by specialist teachers with classrooms that are equipped for this." (School leader – Primary, Queensland, Government, Remote).

- Reducing the overall content demand of specific band levels.

  "Year 7/8 cannot cover all the elements / descriptors. Technologies & Society is always one that is poorly done." (Secondary teacher, Queensland, Catholic, Regional).

  "Although Technologies and society provide valuable knowledge and understanding, this content could be removed particularly in Foundation to Year 2." (Other – Individual, Victoria).

  "Study into Specialist occupations Are not necessary. They are only just grasping the content let alone specialisation." (Secondary teacher, Queensland, Government, Metropolitan).

  "Removing investigating what specialists do would be a good start. It's good to know there are occupations but having to investigate what specialist designers spend years at university doing and then how they design is superfluous to knowledge and skills required." (Secondary teacher, Queensland, Government, Metropolitan).

- Removing content not aligned with the learning area or that is difficult to assess well.

  "The whole thing is over worded and complicated to follow it does not align to food specialisations well at all." (Secondary teacher, Queensland, Government, Remote).

  "Collaborating and managing sub-strand needs to be removed. This sub-strand is extremely difficult to manage and to assess in the reality of classrooms." (School leader - F-12, Queensland, Government, Metropolitan).

Table 4: Content that should be removed or revisions needed to make content more manageable (top 5 themes), Design and Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Content should be removed	**20**	**15.0%**
General views that there is content that should be removed	5	3.8%
There is too much emphasis on Indigenous cultures and perspectives	1	0.8%
Various other LA specific content that should be removed	14	10.5%
Manageability (amount of content)	**15**	**11.3%**
Still too much content/further decluttering needed	15	11.3%
Clarity	**13**	**9.8%**
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	5	3.8%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	6	4.5%
The wording of the achievement standards need further clarity	5	3.8%
Implementation (out of scope)	**12**	**9.0%**
Assessment – this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents	2	1.5%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	10	7.5%
Content should be added	**10**	**7.5%**
Various other learning area specific content that should be added	10	7.5%

Comments were provided by 45 respondents. Percentages are based on all 133 Design and Technologies survey respondents. All theme and subtheme categories that emerged from this comment box are shown in Table E1 in Appendix E.

The 2nd most prevalent theme captured comments about the *manageability of content*. These comments generally related to a perception that there is not enough time to cover the content.

"WAY TOO MUCH teaching and learning to cover within a school timetable - please do not merge things together to solve this as Merge does NOT equal Less." (School, Queensland, Government, Regional).

"Consideration needs to be made in years 5 -8 for the number of prescribed contexts that need to be taught and assessed within the band. Flexibility as P-10 schools will be challenged with staffing and timetabling to complete all 4 contexts as well as the digital component." (Education authority, Queensland).

The 3rd leading theme from comments on this question related to *clarity* of the curriculum. There were comments that suggested further revision of the overall language of the curriculum as well as clearer language for content descriptions and achievement standards.

"Make it more user friendly as many of the D&T areas of study requires practical and theoretical applications and this isn't profound or clear enough for teachers to place and deliver adequately in their program." (Secondary teacher, New South Wales, Government, Metropolitan).

"Achievement standards are not user friendly and need to be unpacked by teachers. Communicating them as a list would be far more helpful when planning and ensuring each is met. Band level descriptions read as being very similar to Achievement Standards. This can be confusing. Are the Band level descriptions meant to compliment the Achievement Standards or should they be included with the Achievement Standards? Perhaps a large part of the text in these 2 sections can be condensed into one section, preferably a list. Indicating what contexts should be covered in each band is helpful. Indicating what level of autonomy and sophistication would be expected for Band levels would be helpful in the description." (Secondary teacher, South Australia, Government, Regional).

"The translation of the content and the achievement standards require a major degree of unpacking. The content elaboration structure is fine, but not very clear. Would like to see more examples of elaboration. If the content descriptions were too prescriptive, it would reduce choice. The whole document is full of jargon and complexity that needs simplifying." (School, Tasmania, Catholic, Metropolitan).

*Implementatio*n was the 4th most common theme conveyed in the feedback. Whilst comments in this theme were technically out of scope, they were coded given their predominance in the feedback. Some comments raised concerns about the lack of trained teachers in this area while others suggested the need for more direction on the level of coverage of content.

Content should be added was another theme in this section with 10 respondents suggesting the need for better coverage of all aspects of the learning area. Survey respondents indicated there were too many sub-strands concerned with the theory of and not the making and skills involved in projects. The main reason given was a lack of relevance to students with capabilities and interests in progressing to apprenticeships. Therefore, for better alignment, it was suggested to increase emphasis on practical skills and the manufacturing of projects and decrease the theoretical content.

"There is only one descriptor in the criteria sheets that pertain to the making and skills involved in the project. Too much emphasis is on theory and what technology does to society. What I am finding is the academic students can succeed. But the non academic student's have no where to go now." (Secondary teacher, Queensland, Government, Regional).

"With only assessable one area devoted to the construction of items, students are currently disengaging in these subjects. How are we going to develop the practical skill needed to successfully transitions students into trades? This subject is now geared towards academic students and leaves very little in the curriculum for the hands on student. We need to have more of a focus on the practical to be able to cater for the kinaesthetic learner." (School, Queensland, Government, Regional).

"The students who chose our subjects do so, because it is a hands on subject. Plus, we need to provide them with the skills to get an apprenticeship." (Secondary teacher, Tasmania, Government, Metropolitan).

"For subjects that are meant to be practical as well the content you are asking us to teach allows very little room for practical as most of their grade comes from the theory component, this makes the subject less enjoyable for the teacher and students." (Secondary teacher, Queensland, Government, Remote).

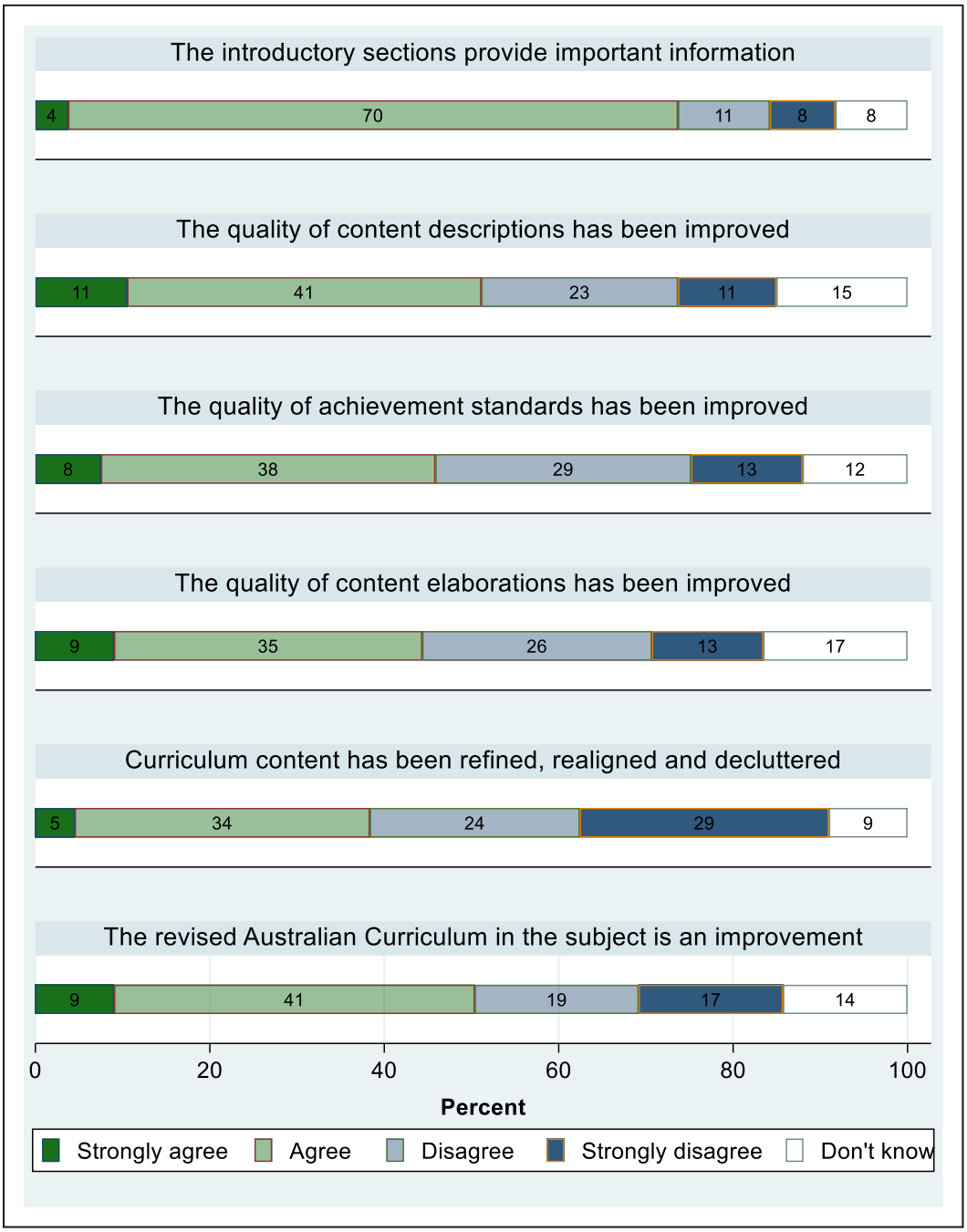
Overall feedback

In the Overall feedback section respondents were asked whether they thought the quality of achievement standards, content descriptions and content elaborations had been improved, whether the curriculum content had been refined, realigned and decluttered and whether the revised Australian Curriculum: Design and Technologies was an improvement on the current version. These questions directly related to the TOR of the Review and what it set out to achieve.

The Overall feedback section also asked respondents whether the introductory sections provide important information. Results for all these questions are shown in Figure 7. They show that the statements directly related to the terms of reference received notably lower agreement (between 38% and 51% agreed or strongly agreed) than the statement about the introductory section (74%).

The statement 'Curriculum content has been refined, realigned and decluttered' received the least favourable responses with 38% of respondents agreeing or strongly agreeing and 53% disagreeing or strongly disagreeing. A visible minority of between 9% and 17% of respondents selected the 'don't know' response for the 5 TOR statements in the Overall feedback section.

Figure 7: Overall feedback, Design and Technology survey respondents



Percentages in the bars are rounded and may not add up to the % agreed and strongly agreed quoted in the text.

Aspects that have improved and aspects that need further improvement

Respondents were also invited to add their general comments on aspects of the revised curriculum that had improved and on aspects that needed further refinement. Responses were captured in 2 text boxes that were respectively labelled. Half of the survey respondents commented in one of those boxes (Table 5).

Open-ended responses were coded according to the developed code frame. When coding these open-ended responses, it emerged that comments did often not adhere to the positive (aspects that have improved) and negative (aspects that need further improvements) frames of the 2 text boxes. Instead, the emerging themes were often the same in both boxes. Because of this, comments captured in both boxes are reported combined below.

Table 5: Open-ended comment, Design and Technologies survey respondents

Commenting status	n	Percent
Not commented	66	50%
Commented in 'have improved' box	18	14%
Commented in 'further improve' box	25	19%
Commented in both boxes	24	18%
Total	**133**	**100%**

The top 5 themes of the responses to the open-ended questions are listed in Table 6, together with the subthemes within these themes that were presented in the data.

Table 6: Aspects that have improved/need further improvement (top 5 themes), Design and Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Clarity	**23**	**17.3%**
The overall language of the curriculum is clearer and/or easier to understand	4	3.0%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	13	9.8%
The wording of the content descriptions is clearer and/or easier to understand	2	1.5%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	1	0.8%
The wording of the achievement standards is clearer and/or easier to understand	5	3.8%
The wording of the achievement standards need further clarity	4	3.0%
Manageability (amount of content)	**21**	**15.8%**
Decluttering of content evident, the amount of content is more manageable	3	2.3%
Still too much content/further decluttering needed	18	13.5%
Content should be added	**20**	**15.0%**
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)	5	3.8%
Various other LA specific content that should be added	18	13.5%
Content has improved/should remain	**14**	**10.5%**
General views that content has improved	2	1.5%
Various other LA specific content that has improved or should remain	12	9.0%
Content should be removed	**14**	**10.5%**
General views that there is content that should be removed	6	4.5%
Various other LA specific content that should be removed	9	6.8%

Comments were provided by 67 respondents. Percentages are based on all 133 Design and Technologies survey respondents. All theme and subtheme categories that emerged from the 2 comment boxes are shown in Table E2 in Appendix E.

A common view among commenting respondents was that aspects of the revised Design and Technologies curriculum needed further improvement. As can be seen in Table 6, 4 of the leading themes that emerged were the same as what had emerged in the questions that prompted for suggestions of aspects that could be removed (see Table 4): *clarity*, *manageability of content*, *content should be added*, and *content should be removed*. The fifth theme that was captured was around *content that has improved/should remain*.

The leading theme from respondents who provided commentary about aspects that had improved/aspects that needed further improvement was around clarity of the overall curriculum, content descriptions, and achievement standards. A number of respondents had positive things to say about the proposed revisions, seeing the proposed revisions offered a more streamlined curriculum. Of particular note was a pattern in comments indicating that the separation of Foundation year achievement standards and content descriptions is a positive move.

> *"The rational, aims, content structure, strands and sub-strands are clear, informative and satisfactory." (School leader - F-12, Western Australia, Government, Metropolitan).*
>
> *"I think that the content elaborations have improved." (Secondary teacher, Queensland, Independent, Metropolitan).*

However, as above, there were more comments that indicated respondents saw that the overall language of the curriculum could use further revision to be clearer and/or easier to understand.

> *"The AS has been reduced from 2 paragraphs to one. Yeah, that's great but it now lacks clarity. There are too many sub-strands and far too many CD. The CE are unusable for most schools across the state." (School, Queensland, Government, Metropolitan).*
>
> *"This learning area is so broad that the content scope does not align with the sufficient specific content for the teaching of food and textiles technology. Revision of this area to refine and focus on the 4 specific areas is needed." (Secondary teacher, Queensland, Independent, Metropolitan).*
>
> *"For specific areas such a Food Tech the current strands don't allow for enough direction or scope. Clearly indicators need to be considered for specific tech areas." (Secondary teacher, South Australia, Independent, Metropolitan).*

Band-level specific comment

Respondents were also prompted to make comment about specific band levels. Of the 133 respondents 13 provided such detailed feedback, some of whom in relation to multiple band levels. Table 7 lists the number of respondents who provided feedback for each band level.

Table 7: Band-level specific open-ended feedback provided by Design and Technologies survey respondents

Band level	Number of respondents
Foundation	2
Year band 1-2	0
Year band 3-4	1
Year band 5-6	1
Year band 7-8	8
Year band 9-10	9

Differences between stakeholder groups

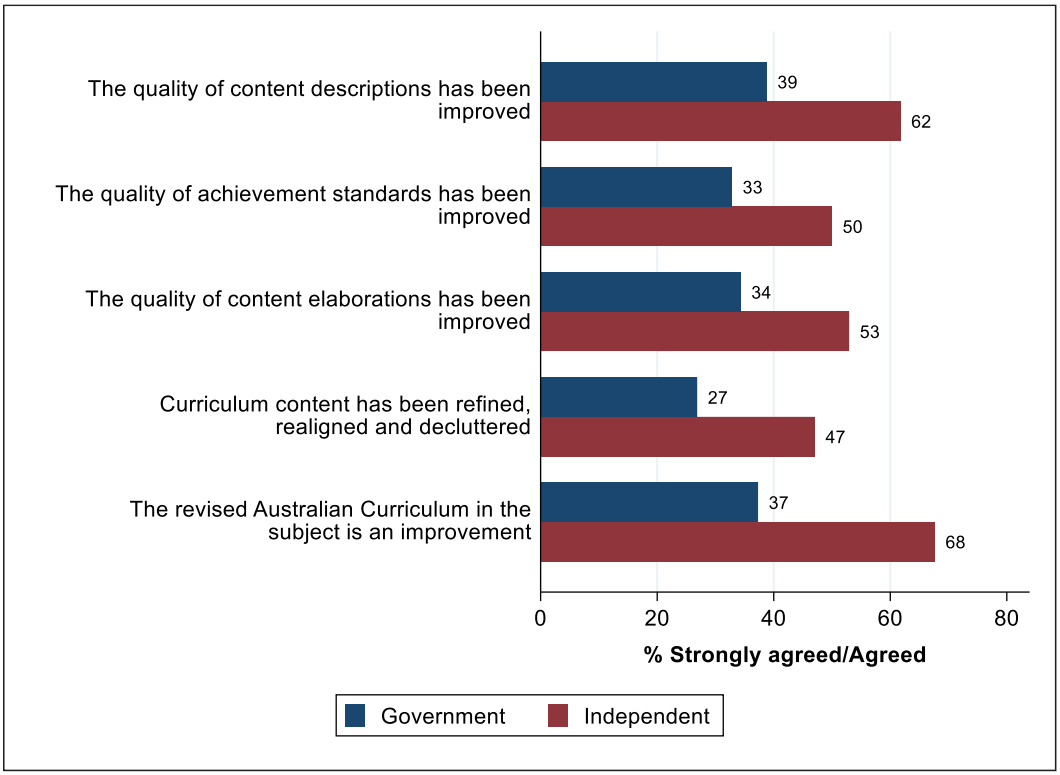
This section explores potential differences in responses between different stakeholder groups. The 133 respondents were largely dominated by respondents who identified as teachers (type), who were from Queensland (state/territory), and who responded in relation to the Years 7 to 10 curriculum (levels). There were no other types of stakeholders, states/territories, or levels of the curriculum that were sufficiently represented in the data (n>=30) to draw comparisons. Only comparisons between school sector and remoteness areas could be considered.

School sector

Teachers, school leaders, students and schools were asked to indicate which school sector they work or study in, and parents were asked to indicate in which sector their child(ren) learn. Government schools and Independent schools were the only sectors with 30 or more respondents (67 for Government schools and 34 for Independent schools). These are compared here.

Independent school respondents were consistently more likely to agree with all propositions presented in the Introductory elements and Curriculum elements sections of the survey than Government school respondents. They were further notably more likely to strongly agree or agree with the TOR statements in the Overall feedback section, which is illustrated in Figure 8.

*Figure 8: Overall TOR feedback by school sector, Design and Technologies survey respondents^*



^ Respondents who identified as teachers, school leaders, parents, students and schools.

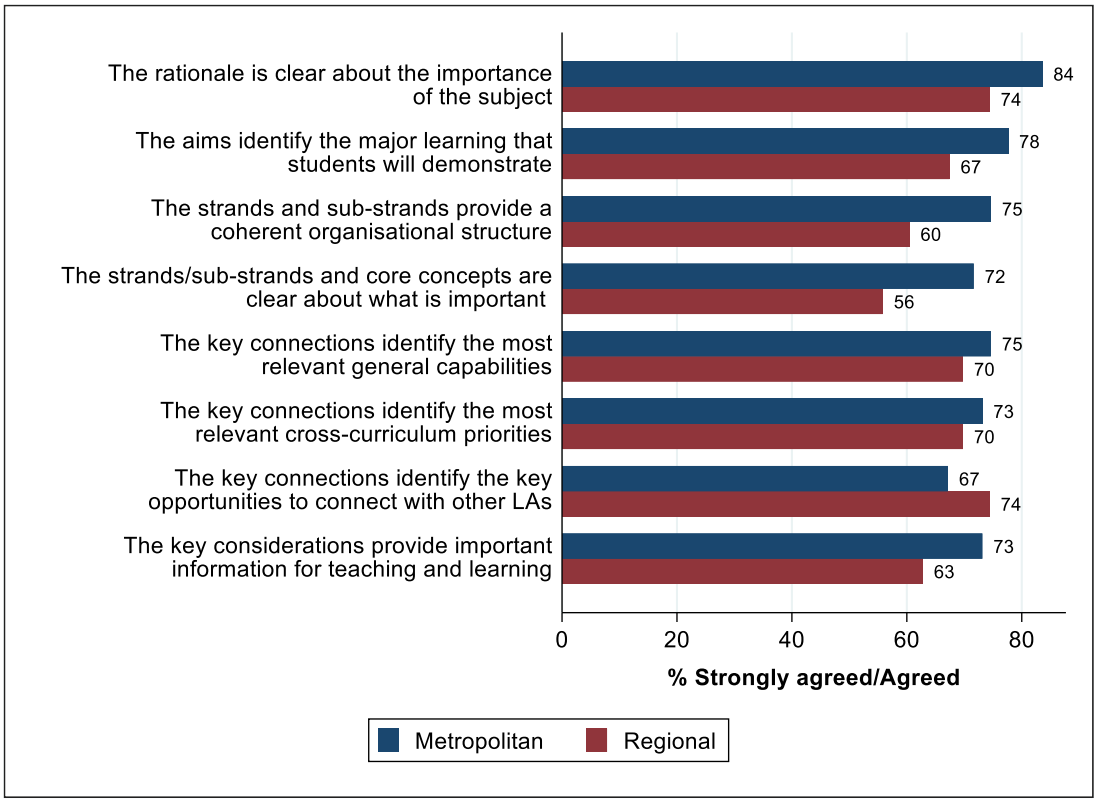
School location

Respondents who identified as teachers, school leaders, parents, students and schools were also asked their school's location. The majority of these respondents indicated metropolitan areas (n=67), followed by regional areas (n=43) and remote or 'Other' (n=7). Metropolitan and regional responses on the agreement statements are compared here.

There were many notable differences (of 5 or more percentage points) between metropolitan and regional respondents in perceiving the revised curriculum. Compared to their regional peers, the agreement of respondents linked to schools in metropolitan areas was higher for most statements on the rationale, aims, organisational structure, key connections and key considerations in the Introductory elements section of the questionnaire (Figure 9). They were also more likely to express agreement towards the 3 content description statements in the Curriculum elements section (Figure 10).

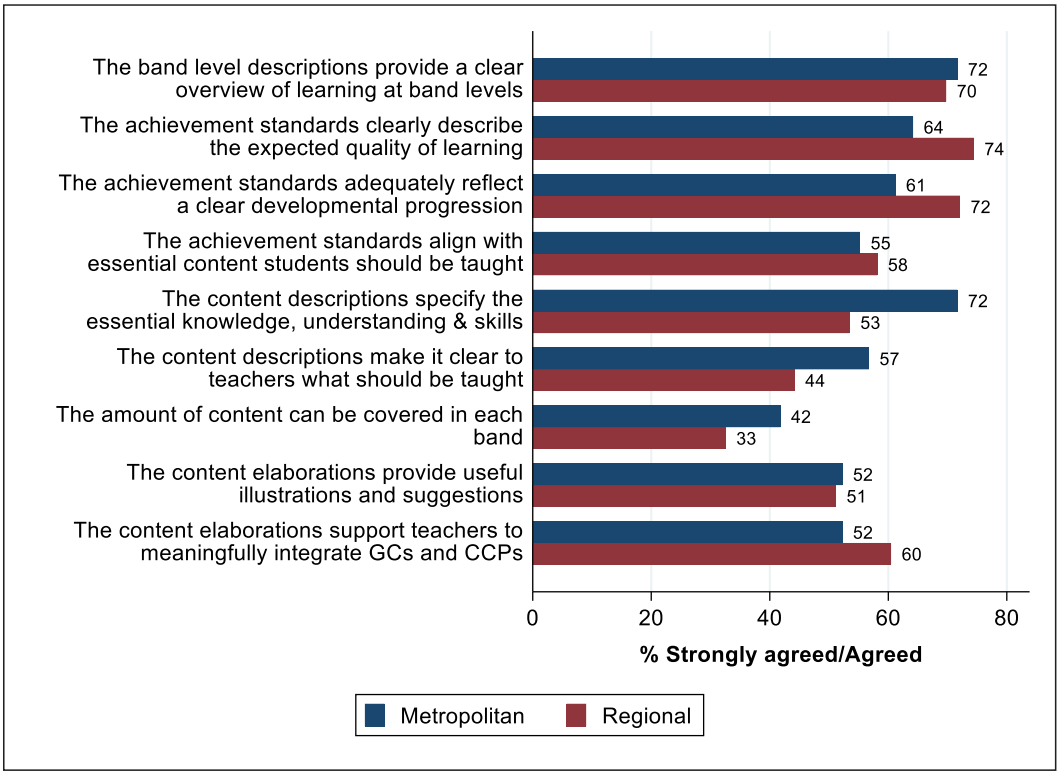
Conversely, regional respondents were more likely to see that the key connections identify opportunities to connect with other earning areas, that the achievement standards describe the expected quality of learning and that they adequately reflect a developmental progression of learning, and that the content elaborations supported teachers to meaningfully integrate the cross-curriculum priorities and general capabilities (Figure 10). Metropolitan respondents tended to be more positive in their overall feedback (Figure 11).

*Figure 9: Introductory elements by school location, Design and Technologies survey respondents^*



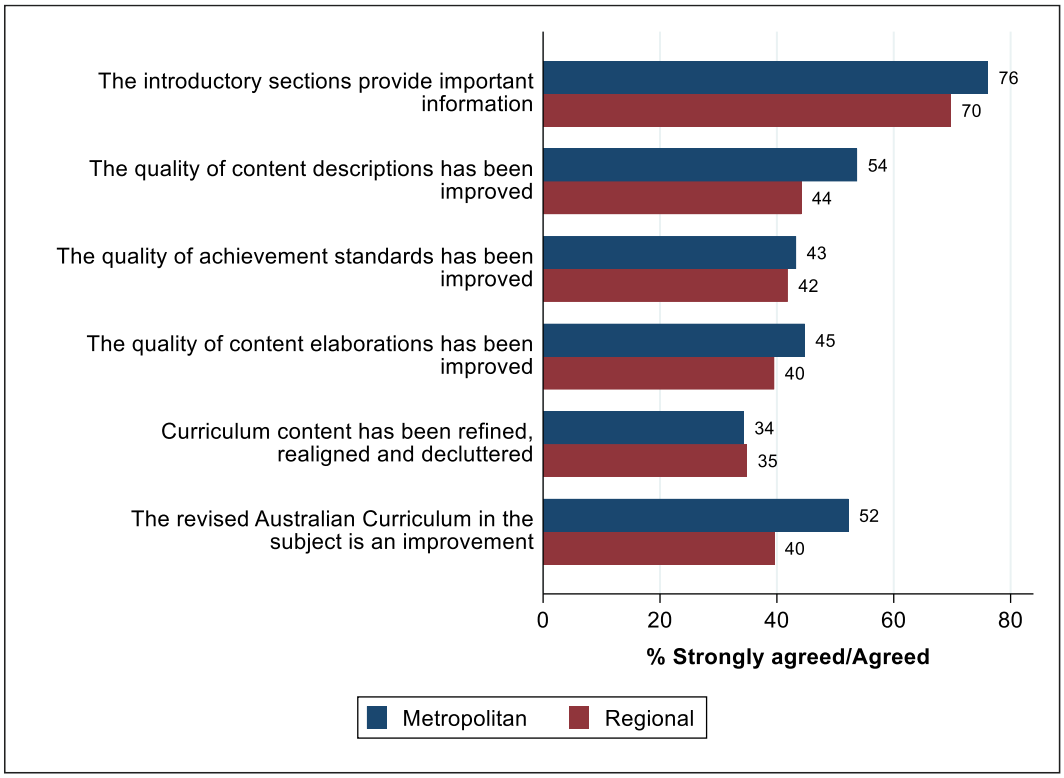
^ Respondents who identified as teachers, school leaders, parents, students and schools

*Figure 10: Curriculum elements by school location, Design and Technologies survey respondents^*



^ Respondents who identified as teachers, school leaders, parents, students and schools

*Figure 11: Overall feedback by school location, Design and Technologies survey respondents^*



^ Respondents who identified as teachers, school leaders, parents, students and schools

Summary - survey results

Respondents from Queensland (71%), those who identified as teachers (62%), and those who were linked to Government schools and schools in metropolitan areas (both 50%[5]) constituted the largest respondent groups that particularly influence the overall survey results for Design and Technologies. Overall responses were also more influenced by those in relation to the Y7-10 curriculum (66%) than those who participated for the primary school level of the curriculum (21%), or the combined F-10 curriculum (13%).

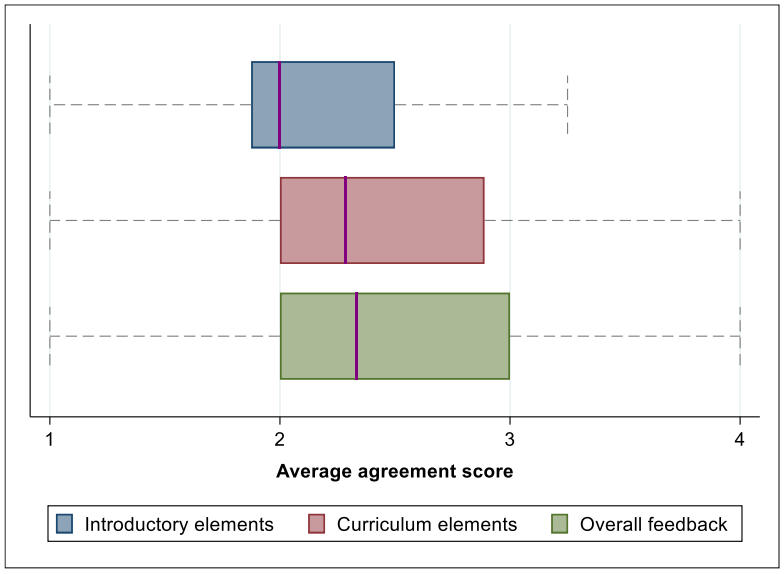
There was a general pattern in the agreement responses discernible across the 3 general questionnaire sections. The level of agreement tended to be highest in relation to statements about the introductory elements of the curriculum (Figure 4), lower for statements about in the curriculum elements (Figure 5) and still lower for the 5 TOR statements in the Overall feedback section (Figure 7).

This is also reflected in the distribution of the average agreement scores of respondents when responding to statements in the 3 different sections. These are plotted in Figure 12, where agreement is higher to the left end of the scale and lower toward the right end of the scale. This shows that average scores for the Curriculum elements were further distributed to the right on the 4-point agreement scale than those for the Introductory elements, and that average scores for the Overall feedback statements were further to the right (the disagreement end) than the average scores for the Curriculum elements.

Figure 13 ranks all 23 statements that sought an agreement rating in the survey according to the level of agreement they attracted. Of all 23 statements, the statement that the rationale was clear about the importance of the subject received the most positive agreement scores (80% agreement), and the statement that the curriculum content had been refined, realigned and decluttered was least well received (38% agreement and 53% disagreement).

[5] Percentage based on all respondents while the numerator only applied to teachers, school leaders, students, parents and schools.

Figure 12: Introductory elements, curriculum elements and overall feedback, average ratings, Design and Technologies survey respondents



Response options: 1 – Strongly agree, 2 – Agree, 3 – Disagree, 4 – Strongly disagree
Boxplots[6] show the distribution of average ratings across the 8 agreement statements in the Introductory elements section, across the 9 agreement statements in the Curriculum elements section and the 6 agreement statements in the Overall feedback section. Don't know responses were excluded from calculating averages.
The median is indicated by the pink line in each of the boxes.

Based on levels of agreement/disagreement expressed in the survey data, key areas of concern for the revised Design and Technologies curriculum could lie in:

- the perceived manageability of curriculum content (52% disagreement);
- the content descriptions not being seen as clear about what should be taught (44% disagreement with the relevant proposition) and, perhaps relatedly
- the learning described in the achievement standards not being seen as aligning with essential content that students should be taught (41% disagreement with the relevant statement); and
- the perceived usefulness of content elaborations for planning teaching of content (42% disagreement).

The overall feedback provided by survey respondents suggests that about half of them see the objectives of the Review met.

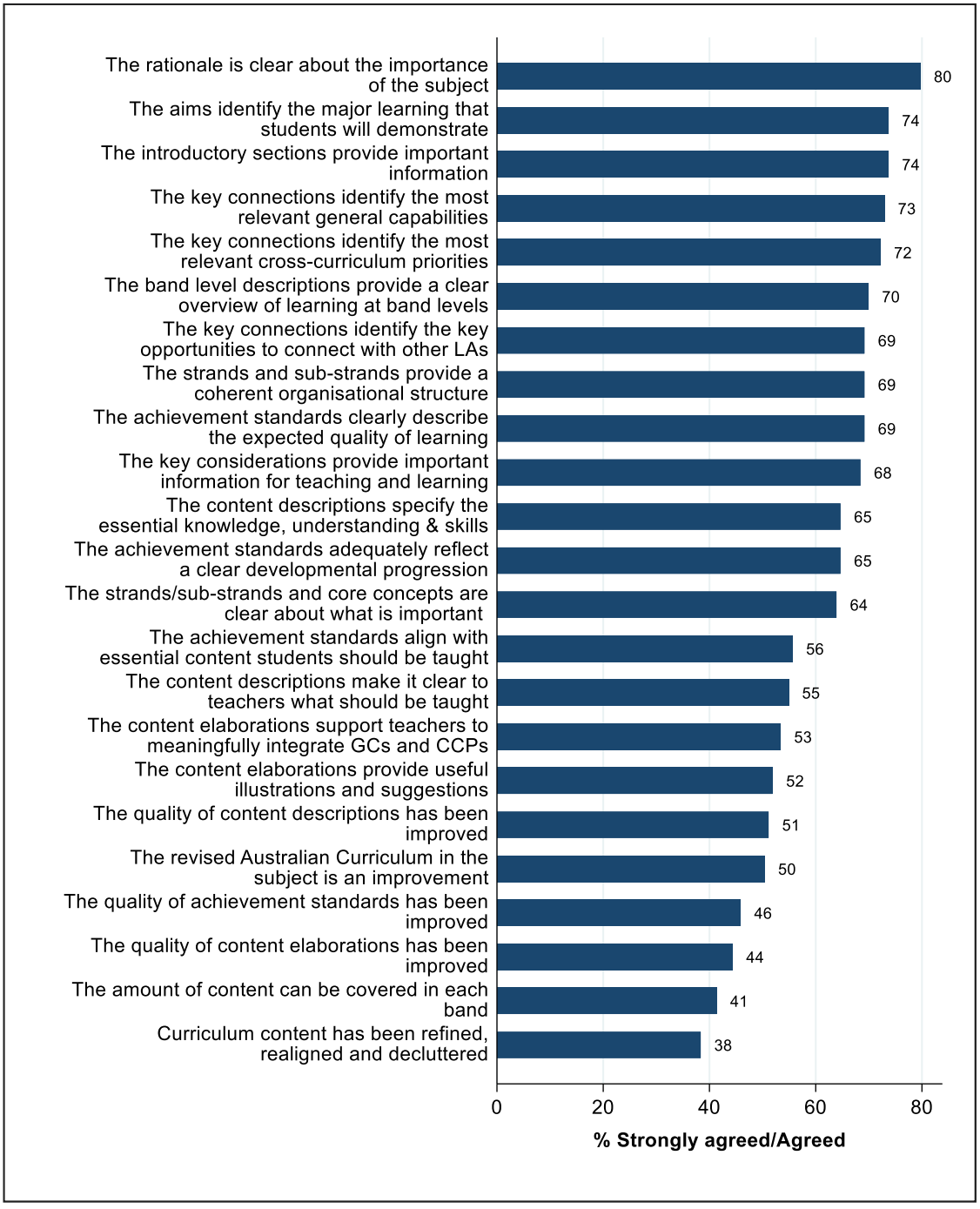
Open-ended feedback captured in the survey suggests that a small subset felt that sections have improved reflecting a more streamlined curriculum. Of particular note was a pattern in comments indicating that the separation of Foundation year achievement standards and content descriptions is a positive move.

A number of suggestions to remove content were made with some respondents suggesting removing Technologies altogether from the curriculum in the early years. Relatedly, there were concerns around the age-appropriateness of the proposed inclusion and sequencing of content within the Design and Technologies subject. This included issues with the number of prescribed contexts that need to be taught and assessed in Years 7 and 8 with a view to simplify further and focus on the development of foundational skills; and that learning design should be removed in F-2 or F-6 as the concepts and learnings are well above age related understandings and capabilities.

[6] A box plot (also known as a box-and-whisker plot) displays the distribution of a variable in a way that highlights key summary statistics of the distribution: the median (a line separating the top 50% of values from the lower 50% that would appear in the middle of the box for a normally distributed, and any symmetric, variable); the 25th and 75th percentiles (Q1 and Q3), which mark the 2 ends of the box; and the whiskers, which mark the so-called upper and lower adjacent values (which are the most extreme values within 1.5 times the inter-quartile range (Q3-Q1) from the end of the box).

Of further note were comments that argued for shifting the balance of the Design and Technologies curriculum from theoretical knowledge to practical skills. Comments on the clarity of language were among the more prevalent ones with content descriptions seen as too wordy, too broad, and non-user friendly.

Figure 13: All statements by level of agreement, Design and Technologies survey respondents



Several respondents expressed a concern about the included content in food and textiles technology. Within the theme, *Implementation*, responses felt that support in the way of qualified teachers, classroom resources and funding is needed.

The survey results for Design and Technologies were dominated by respondents who commented on the Y7-10 curriculum (66%), and respondents who were based in Queensland (71%). The latter makes it likely that the overall survey results were particularly affected by the Queensland-specific context in which the Australian Curriculum is implemented.

5.2 Digital Technologies

This section starts by drawing a profile of participants who provided feedback on the Digital Technologies curriculum before presenting their feedback.

5.2.1 Respondent profile

Table 8 shows the types of stakeholders who completed the online survey as an individual or group. More than half of the 104 respondents for Digital Technologies were teachers. School leaders were the next largest group (18%) followed by schools (11%). These 3 respondent groups constituted 84% of all survey respondents.

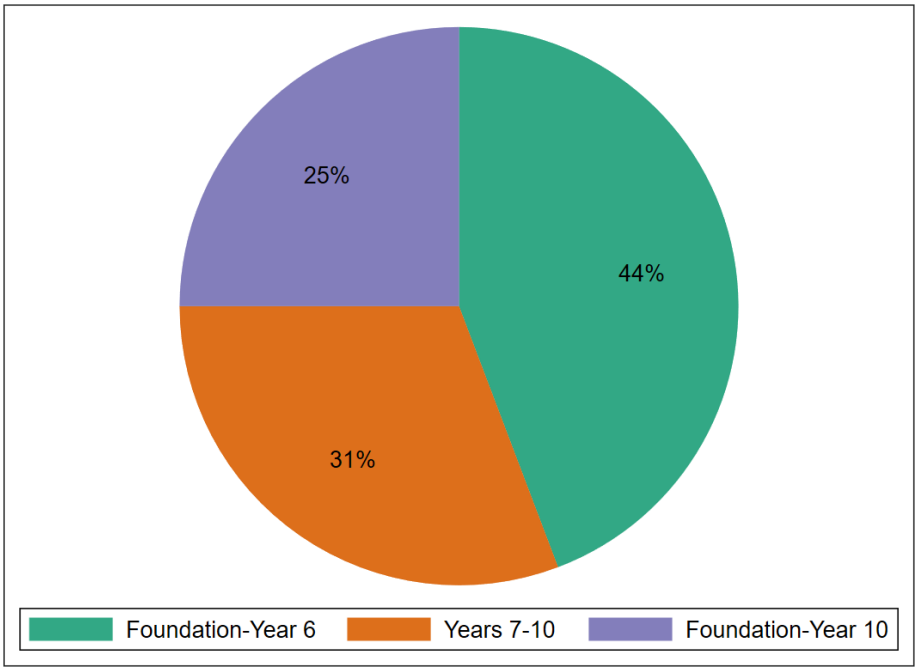
Table 8: Type of survey respondent, Digital Technologies survey respondents

Type of respondent	n	Percent
Individual respondent		
Teacher	57	54.8%
School leader	19	18.3%
Academic	2	1.9%
Employer/business	1	1.0%
Other - Individual	4	3.8%
Group respondent^		
School	11	10.6%
Professional association	3	2.9%
University faculty	1	1.0%
Education authority	3	2.9%
Community organisation	1	1.0%
Other - Group	2	1.9%
Total	**104**	**100.0%**

^ A list of participating groups (other than schools), which self-identified in the survey is provided in Appendix D.

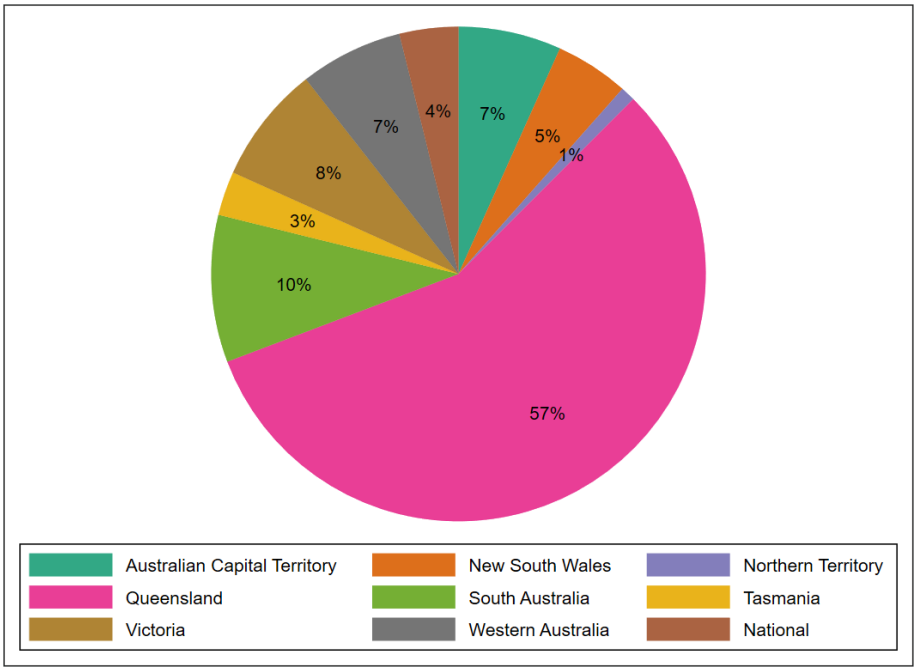
About 44% of respondents gave feedback on the F-6 curriculum, 31% on the Y7-10 curriculum and the remaining 25% in relation to the F-10 curriculum (Figure 14).

Figure 14: Level of curriculum selected, Digital Technologies survey respondents



Queensland had the largest representation of survey respondents, with 57% of respondents based in that state. (Figure 15).

Figure 15: State of residence, Digital Technologies survey respondents



Respondents from Queensland thus over-represented their state population by almost 3 times (57% of all respondents vs 20% of Australia's population share[7]). Based on jurisdictional shares in the national population, the 2 largest states, New South Wales and Victoria, were particularly under-represented among survey respondents.

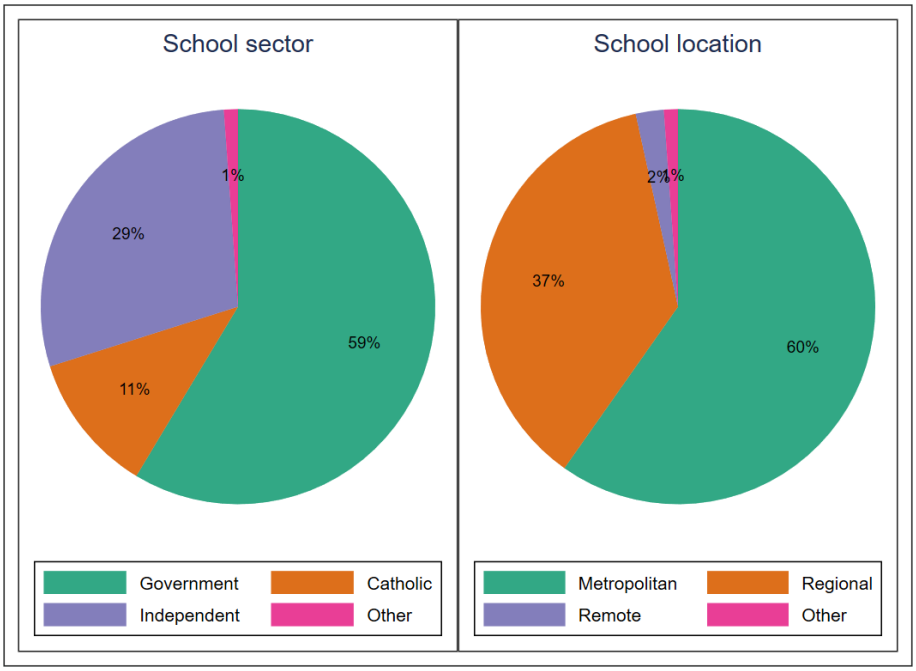
Respondents who identified as a teacher, school leader, school, student or parent were asked in which sector their (child's) school was and in which remoteness region it was located. About 3 in 5 (59%) of these

[7] Source: Australian Bureau of Statistics, National, state and territory population December 2020.

respondents indicated a Government school, 11% indicated the Catholic school sector and 29% the Independent school sector (left panel in Figure 16). As a point of reference, student enrolment distributions in 2020 were the following: 66% in Government schools, 19% in Catholic schools and 15% in Independent schools[8].

About 60% of those respondents indicated that the school was located in a metropolitan area, 37% that it was in a regional area and 3% that it was in a remote or 'Other' area (right panel in Figure 16). The respective student enrolment distributions in 2020 were: 72% of students were enrolled in major cities (equivalent to metropolitan areas), 26% in regional areas and 2% in remote areas in 2020[9].

Figure 16: School sector, Digital Technologies survey respondents



^ Teachers, school leaders, students, parents and schools.
'Other' responses in the pie charts relate to staff who worked across schools, parents who had children in multiple schools and, in the case of school sector, also to TAFE and University students.

Respondent summary and implications for overall results

Of the 104 completed surveys, 55% were submitted by teachers and about 57% by individuals and groups who were based in Queensland. The overall survey results are therefore notably influenced by teachers and respondents who were based in Queensland. Half of the survey participants were linked to Government schools and schools in metropolitan areas.

Table 9: Most prevalent respondent characteristics, Digital Technologies survey respondents

Respondent dimension	Category	n	Percent of all survey completions
Level of curriculum	F-6	46	44%
State/territory	Queensland	59	57%
Type of respondents	Teacher	57	55%
School sector^	Government	51	49%
School location^	Metropolitan	52	50%

^This information was only captured from participating teachers, school leaders, schools, parents and students while the percentage in the last column is based on all respondents.

[8] ABS 2021, Schools, Australia 2020. https://www.abs.gov.au/statistics/people/education/schools/latest-release#key-statistics.
[9] ABS 2021, Schools, Australia 2020. https://www.abs.gov.au/statistics/people/education/schools/latest-release#key-statistics.

5.2.2 Survey results

Overall survey results for Digital Technologies are dominated by respondents who self-identified as school professional staff – teachers, school leaders and schools constitute 84% of all respondents. The survey results are further shaped by respondents who were based in Queensland – these constituted 57%. The latter makes it likely that the overall survey results were particularly affected by the Queensland-specific context in which the Australian Curriculum is implemented. However, while some stakeholder details were captured during the survey, it is uncertain to which extent survey respondents are representative of stakeholder groups (e.g. to which extent participating teachers from Queensland were representative of teachers in Queensland).

Overall results

The General feedback part of the questionnaire that sought respondent perceptions in relation to the curriculum/proposed changes to the curriculum included 3 sections: Introductory elements, Curriculum elements and Overall feedback (see Appendix A). The presentation of the results focuses on feedback captured in these 3 sections and follows their structure.

The survey also captured feedback that was band-level specific. This feedback has been considered by ACARA in refining the curriculum, however, it is not reported here beyond the number of respondents who provided such detailed feedback.

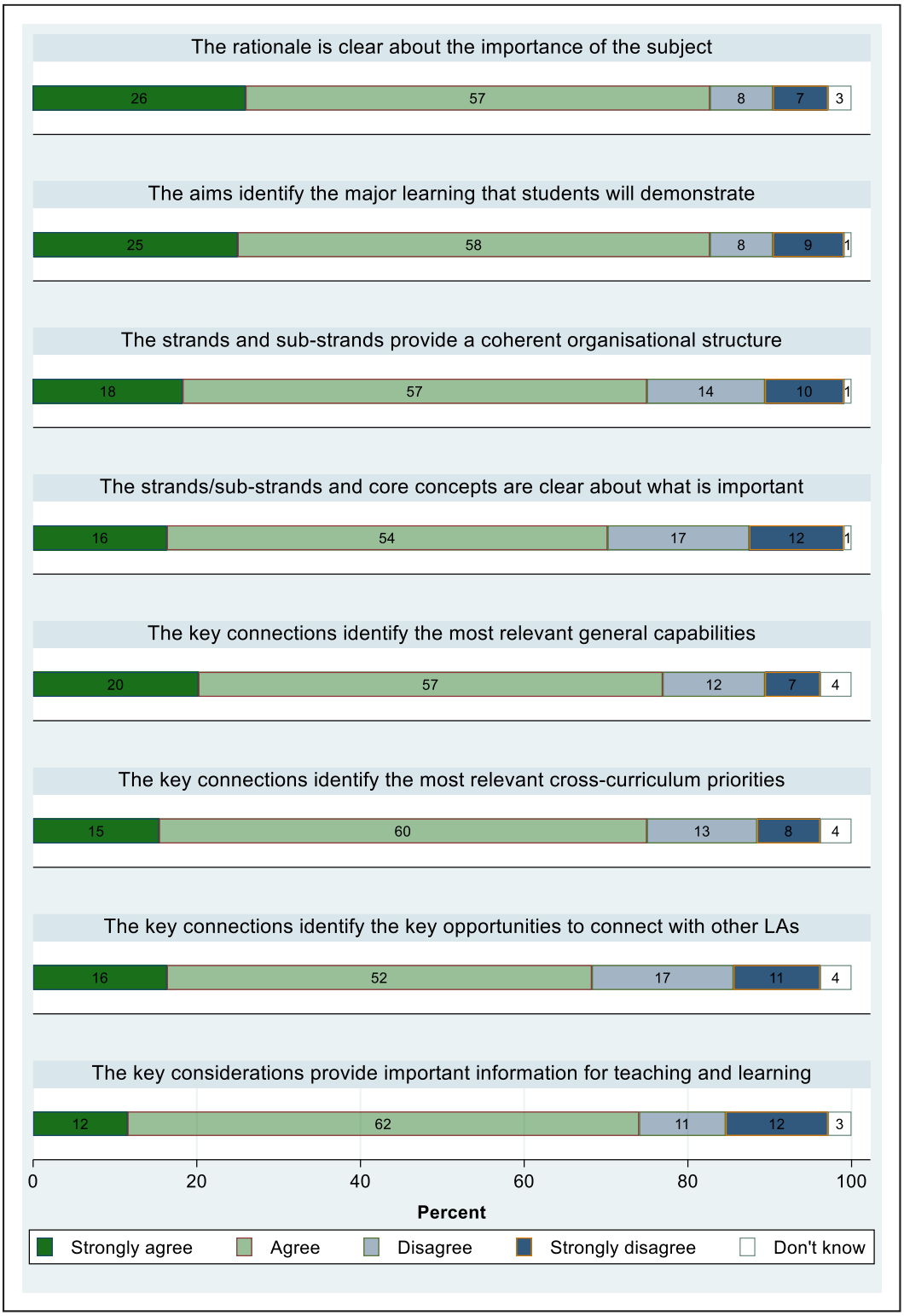
Introductory elements

Respondents were presented with 8 statements in the Introductory elements section of the questionnaire and asked to give an agreement rating for each. These statements related to the rationale, the aims, the organisational structure, key connections and key considerations in the introductory sections of the Digital Technologies curriculum. The results are reported in Figure 17.

Overall, between 68% and 83% of respondents agreed or strongly agreed with the presented statements. The level of agreement (strongly agreed and agreed) was highest for the first 2 statements: on the rationale being clear about the importance of the subject and the aims identifying the major learnings that students need to demonstrate (both 83%). Of the 8 statements, respondents were least likely to agree or strongly agree that the key connections section identified the key opportunities to connect with other learning areas (68%).

Levels of disagreements (strongly disagree or disagree) ranged from 14% to 29% and tended to inversely related to levels of agreements: they were lowest for the statement on the rationale being clear (14% disagreement) and highest for the proposition that the strands/sub-strands and core concepts are clear about what is important in the subject (29% disagreement).

Figure 17: Introductory elements, Digital Technologies survey respondents

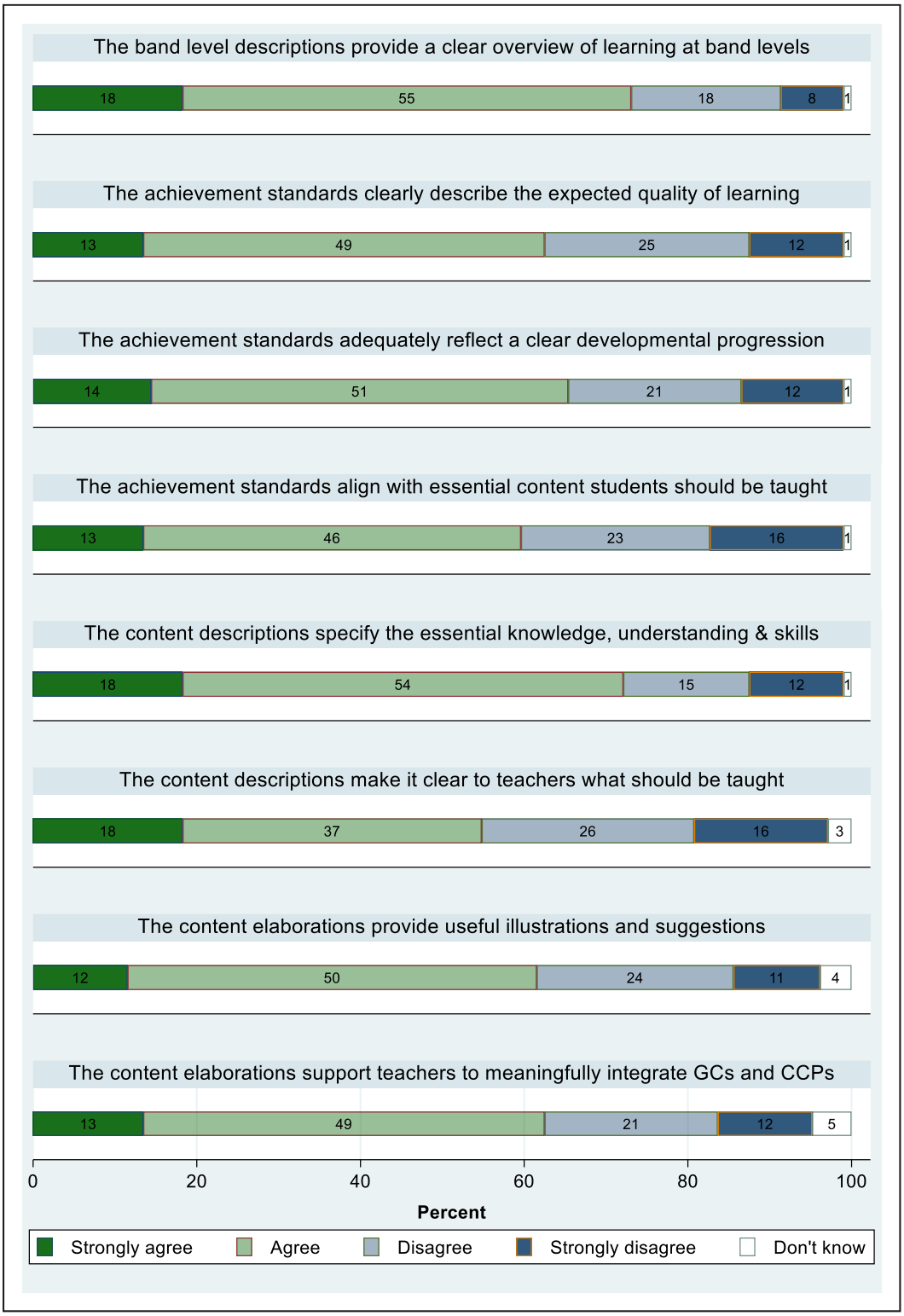


Percentages in the bars are rounded and may not add up to the % agreed and strongly agreed quoted in the text.

Curriculum elements

The next section in the questionnaire captured perceptions on 4 curriculum elements: band level descriptions, achievement standards, content descriptions and content elaborations. Overall results for 8 of the questions in this section are shown in Figure 18. Between 55% and 73% of respondents agreed or strongly agreed, and between 26% and 42% disagreed or strongly disagreed with the presented statements.

Figure 18: Curriculum elements, Digital Technologies survey respondents



Percentages in the bars are rounded and may not add up to the % agreed and strongly agreed quoted in the text.

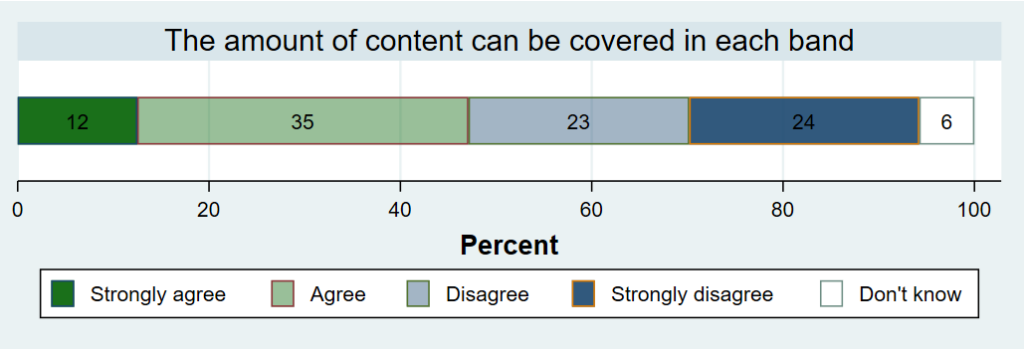
Responses were most favourable in relation to the band level descriptions providing a clear overview of learning at band levels (73% agreed or strongly agreed), and the content descriptions specifying the essential knowledge, understanding and skills that should be learned (72% agreement).

Fewer respondents agreed that the achievement standards clearly describe the expected quality of learning (63%), that they reflect a clear developmental progression (65%), that the learning described in the achievement standards aligns with the essential content that students should be taught (60%), that the

content elaborations provide useful illustrations and suggestions (62%) and that they provide a range of contexts that support teachers to meaningfully integrate the general capabilities and cross-curriculum priorities (63%). Still fewer respondents agreed with the statement that the content descriptions make it clear what should be taught (55%).

Respondents were also asked whether the amount of content in the content descriptions can be covered in each band. About as many respondents expressed agreement as did express disagreement (both 47%), the latter included 24% of respondents who strongly disagreed with the proposition (Figure 19).

Figure 19: Amount of content, Digital Technologies survey respondents



The 47% of respondents who disagreed or strongly disagreed were asked a follow-up question to clarify what content should be removed or what revisions were needed to make the content more manageable. Of the 49 respondents who were asked this follow-up question, 37 provided a comment.

Just under one quarter of the 37 respondents who provided a comment to this follow-up question were able to provide specific examples or ideas of content to remove or what revisions were needed to make the content more manageable. Other comments simply stated there was too much content to cover or were in relation to other aspects of the revised Digital Technologies subject.

The comments from the 37 respondents were coded according to the themes and subthemes covered in the code frame. While the question explicitly asked respondents what content should be removed or revised to make the content more manageable, some respondents did not address this, but rather saw this as an opportunity to comment on any aspect of the curriculum.

The 5 most prevalent themes and their subthemes that emerged from feedback given by those 37 are listed in Table 10 together with their prevalence, which is expressed as a percentage of all Digital Technologies survey respondents. It is possible that a single response has utterances that span across multiple themes. As a result, a comment from a single respondent would be coded to more than one theme. Likewise, a single response could be coded to more than one subtheme.

The top 5 themes were around *content that should be removed*, *manageability of content*, *clarity*, the *introductory elements* as well as *implementation* (although this was technically out of scope).

Within the theme, *content should be removed*, there was a dominant feedback pattern indicating there is far too much to be covered given the allocated hours. Survey respondents suggested to remove Digital Technologies from the F-6 curriculum indicating the main reasons behind this perspective are that there is little time remaining in class to cover content and anything taught now is most likely to become outdated by the time a student chooses to go into this field as an adult. Other comments indicated to remove the use of computers from a foundational age.

> *"Digital Technologies should not be taught as a specific learning area/subject in Primary school. The concepts outlined in the curriculum are too abstract and difficult for young children to comprehend and the time required to teach this subject results in less time on core literacy and numeracy learning. Primary aged children can gain an adequate understanding of digital systems, networks and the technologies they use that impact on their lives by engaging with ICT in other learning areas." (School, Queensland, Government, Metropolitan).*

Other specific content that should be removed was recognised:

> *"Further reduction can be achieved by removing the sub-strand: Data representation. This is covered in mathematics (statistics). EG: represent data as objects, pictures and symbols (AC9TDIFK02), represent data as pictures, symbols, numbers and words (AC9TDI2K02), recognise different types of data and explore how the same data can be represented differently depending on the purpose (AC9TDI4K03). - Reduction in Foundation content has resulted in more being added to Year 1 and Year 2. This is not manageable for these year levels. A reduction is required. - Please review the achievement standards – is it necessary to have 3 achievement standards? HASS now has one achievement standard, rather than an achievement standard per subject area. Can this be replicated to only have one achievement standard for Technologies that covers both digital and design? Or alternatively, one achievement standard for Digital Technologies and one for Design and Technology, but not the blanket of Technologies as well. Having all 3 causes confusion amongst staff regarding what exactly needs to be assessed and reported on." (School leader – Primary, Queensland, Independent, Metropolitan).*
>
> *"Binary numbers in year 5 and 6. Information systems in years 3 to 6. Online profiles in F to 2" (Primary teacher, Queensland, Government, Regional).*
>
> *"… it is not necessary for students to learn/understand binary. This is boring to them and they do not engage with it. Databases in the Year 7/8 Band Plan also need to be removed." (School leader – Secondary, Queensland, Government, Regional).*
>
> *"I suggest removing networking and binary - particularly from the Year 7 & 8 curriculum." (Secondary teacher, Western Australia, Government, Metropolitan).*
>
> *"The Collaborating and Managing sub-strand needs to be removed to help actually reduce the content in this subject." (School leader - F-12, Queensland, Government, Metropolitan).*

The 3rd leading theme captured comments related to *clarity* of the curriculum There were a number of comments relating to the need to remove ambiguity in wording of content descriptions, to make it clearer for teachers, students, and parents to understand.

There was a perception that the language is particularly complex and could use further revision to be easier to understand especially by those who have not trained in this area.

> *"It is not so much the amount of content that is of concern, but rather the language used to describe it. Digital technologies is not an area that is usually staffed by teachers who have trained in this area (especially in primary schools). The language is particularly complex and, as a result, teachers are often overwhelmed and reluctant to integrate this learning area in their plans. After 5 years of working in this area, I feel I have only just started to feel confident about what is required, but still find myself in conversations where others have interpreted aspects of this curriculum differently. Any documentation that requires significant time to interpret is not supporting the teaching and learning process." (F-12 teacher, Tasmania, Catholic, Regional).*

Implementation was the 4th most common theme conveyed in the feedback. Whilst comments in this theme were technically out of scope, they were coded given their predominance in the feedback. These comments often raised concerns about the need for support in the way of more planning advice and resources, argued that examples that relate to content descriptions should be made 'easily' available, that they should be easily downloadable with multiple elaborations to add to the clarity, and also show recommended time to teach.

The remaining theme in the top 5 themes was *introductory elements*. Some of these comments suggested that the content in certain sub-strands was covered elsewhere or did not belong in the Digital Technologies subject.

Table 10: Content that should be removed or revisions needed to make content more manageable (top 5 themes), Digital Technologies survey respondents

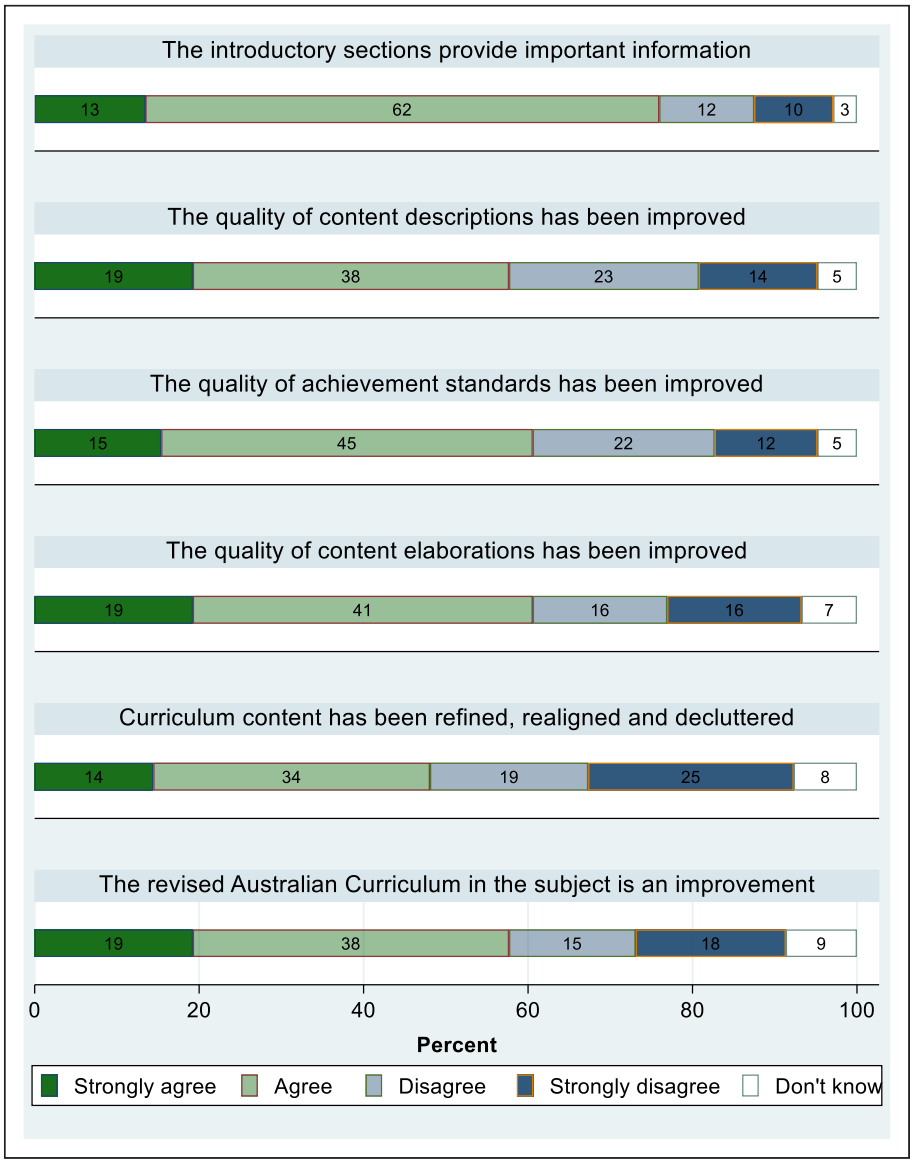
Theme/Subtheme	Number of respondents	Percent of total
Content should be removed	**13**	**12.5%**
General views that there is content that should be removed	4	3.8%
Various other LA specific content that should be removed	9	8.7%
Manageability (amount of content)	**13**	**12.5%**
Still too much content/further decluttering needed	13	12.5%
Clarity	**11**	**10.6%**
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	4	3.8%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	6	5.8%
The wording of the achievement standards is clearer and/or easier to understand	2	1.9%
The wording of the achievement standards need further clarity	1	1.0%
Implementation (out of scope)	**7**	**6.7%**
Assessment – this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents	2	1.9%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	6	5.8%
Introductory elements	**6**	**5.8%**
The strand/sub-strands/core concepts need further improvement	6	5.8%

Comments were provided by 37 respondents. Percentages are based on all 104 Digital Technologies survey respondents. All theme and subtheme categories that emerged from this comment box are shown in Table E3 in Appendix E.

Overall feedback

In the Overall feedback section respondents were asked whether they thought the quality of achievement standards, content descriptions and content elaborations had been improved, whether the curriculum content had been refined, realigned and decluttered and whether the revised Australian Curriculum was an improvement on the current version. These questions directly related to the TOR of the Review and what it set out to achieve.

Figure 20: Overall feedback, Digital Technologies survey respondents



Percentages in the bars are rounded and may not add up to the % agreed and strongly agreed quoted in the text.

The Overall feedback section also asked respondents whether the introductory sections provide important information. Results for all these questions are shown in Figure 20.

They show that the statements directly related to the TOR received notably lower agreement (between 48% and 61% agreed or strongly agreed) than the statement about the introductory section (76%).

The statement 'Curriculum content has been refined, realigned and decluttered' received the least favourable responses with 48% of respondents agreeing or strongly agreeing and 44% disagreeing or strongly disagreeing.

Aspects that have improved and aspects that need (further) improvement

Respondents were also invited to add their general comments on aspects of the revised Digital Technologies curriculum that had improved and on aspects that needed further refinement. Responses were captured in 2 text boxes that were respectively labelled. More than half of the survey respondents (55%) commented in one of those boxes (Table 11).

Table 11: Open-ended comment, Digital Technologies survey respondents

Commenting status	n	Percent
Not commented	47	45%
Commented in 'have improved box'	7	7%
Commented in 'further improve' box	11	11%
Commented in both boxes	39	38%
Total	**104**	**100%**

Open-ended responses were coded according to the developed code frame. When coding these open-ended responses, it emerged that comments did often not adhere to the positive (aspects that have improved) and negative (aspects that need further improvements) frames of the 2 text boxes. Instead, the emerging themes were often the same in both boxes. Because of this, comments captured in these boxes are reported combined below.

The top 5 themes of the responses to the open-ended questions are listed in Table 12, together with the subthemes within these themes that were represented in the data. The 2 leading themes were around: *clarity* and *content that had improved/should remain*. The other leading themes included *introductory elements*, *manageability of content*, and *inclusive content*. Whilst comments in the theme of *implementation* were technically out of scope, they were equally ranked as the 5th most prevalent theme.

The predominant theme in this section related to *clarity*. Comments within this theme expressed concern that the language and demands of the curriculum may be beyond the capacity of general primary teachers:

> *"Some descriptions in Year 3-6 are difficult to interpret, particularly for generalist classroom teachers. Without a specialist to deliver the curriculum, this could require further unpacking." (School leader - F-12, South Australia, Independent, Metropolitan).*

> *"The language (even in Foundation) is very dense and IT specific. It would be challenging for teachers who are out of field as most primary teachers are generalists." (Professional association, Victoria).*

Elsewhere, responses were of the view that the readability and ease of understanding the documentation had improved.

> *"The language used in the achievement standard and content descriptions is much clearer and more simplified. The removal of technical terminology will make it easier for teachers from non-technological backgrounds to understand and teach." (Primary teacher, Queensland, Government, Metropolitan).*

> *"The breaking down of the content descriptors into more explicit descriptions provides clarity to teachers on student learning." (School, National, Independent).*

The 2nd leading theme related to *content that had improved/should remain.* Comments within this theme included those which indicated that the separate Foundation year is welcomed:

> *"The separation of Foundation year achievement standards and content descriptors is a positive move. The standards can be easily achieved by foundation students even in the first semester of school." (School leader - F-12, South Australia, Independent, Metropolitan).*

> *"Splitting of F-2 into 2 separate bands is much better for developing a scope and sequence for younger students." (School leader - F-12, South Australia, Independent, Metropolitan).*

There was also a pattern of support for the inclusion of Aboriginal and Torres Strait Islander perspectives:

> *"Love the inclusion of specific elaborations connecting to Aboriginal and Torres Strait Islander peoples." (Primary teacher, South Australia, Government, Metropolitan).*

"The Aboriginal and Torres Strait Islander Histories and Cultures and Sustainability sections highlight their important place in the continuum." (School leader – Primary, New South Wales, Government, Metropolitan).

"Great job with how you included indigenous perspectives." (Secondary teacher, Queensland, Government, Metropolitan).

Table 12: Aspects that have improved/need further improvement (top 5 themes), Digital Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Clarity	**29**	**27.9%**
The overall language of the curriculum is clearer and/or easier to understand	8	7.7%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	13	12.5%
The wording of the content descriptions is clearer and/or easier to understand	11	10.6%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	6	5.8%
The wording of the achievement standards is clearer and/or easier to understand	4	3.8%
The wording of the achievement standards need further clarity	2	1.9%
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand	1	1.0%
Content has improved/should remain	**23**	**22.1%**
General views that content has improved	4	3.8%
Various other LA specific content that has improved or should remain	21	20.2%
Introductory elements	**16**	**15.4%**
The rationale/aims have improved	3	2.9%
The rationale/aims need further improvement	1	1.0%
The strand/sub-strands/core concepts have improved	2	1.9%
The strand/sub-strands/core concepts need further improvement	3	2.9%
The key connections have improved	5	4.8%
The key connections need further improvement	6	5.8%
Manageability (amount of content)	**11**	**10.6%**
Decluttering of content evident, the amount of content is more manageable	2	1.9%
Still too much content/further decluttering needed	10	9.6%
Inclusive content	**10**	**9.6%**
The curriculum content does not adequately accommodate and enable teaching for diverse learners' interests and capabilities.	3	2.9%
There are concerns around the age-appropriateness of content	7	6.7%
Implementation (out of scope)	**10**	**9.6%**
Pedagogy – this overarching theme encompasses feedback about how children should be taught	2	1.9%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	8	7.7%

Comments were provided by 57 respondents. Percentages are based on all 104 Digital Technologies survey respondents. All theme and subtheme categories that emerged from the 2 comment boxes are shown in Table E4 in Appendix E.

There was also some support for the inclusion of Privacy and Security in current environment:

> *"Also absolutely love that privacy and security is a strand that stands out. It is so important to upskill younger students about this." (Primary teacher, South Australia, Government, Metropolitan).*

> *"It is good that privacy and security are now covered." (Secondary teacher, South Australia, Independent, Metropolitan).*

However, there were also mixed feelings about it since it would need time to cover the required content and there was also a view that aspects are already addressed in other learning areas.

The 3rd leading theme related to the *introductory elements*. The revised rationale/aims, strand/sub-strands/core concepts, and key connections got mixed feedback because some respondents thought they had improved and others thought they needed further improvement.

The 4th leading theme in this section related to the *manageability of content*, particularly the extent to which it appeared that the curriculum had been decluttered. Of these comments, more respondents saw that there was room for further decluttering, highlighting that there has been no change in the amount of content and that new content has been added (e.g., Considering privacy and security sub-strand). The amount of content was then not manageable given that the allocated time for this subject had not changed.

> *"Year 7-10 Bands. You have added, and sometimes doubled the amount of content in each strand AS WELL AS adding brand new sub-strands that didn't exist before. No doubt, this is all good stuff, but there is absolutely no time in the current semester to properly teach all this." (Secondary teacher, Australian Capital Territory, Independent, Metropolitan).*

> *"... amount that needs to be covered is challenging in a small amount of time. Currently my school gives 4 lessons of 45 minutes a fortnight to year 7 digital technologies, and 5 lessons a fortnight of 45 minutes to year 8 and 9 digital technologies." (Secondary teacher, South Australia, Catholic, Metropolitan).*

> *"there is far too much to be covered in a 40 hr period. it takes 20 of those for students to become proficient in a general coding language" (School leader – Secondary, Queensland, Government, Regional).*

> *"The way that Digital Technologies is taught in many schools particularly for Year 7 and 8 students is 2 lessons per week for one semester. This makes it very difficult to maintain a consistent learning progression in something like coding when there is so much else to teach - like networking and binary." (Secondary teacher, Western Australia, Government, Metropolitan).*

Again, as above, while comments around implementation were technically out of scope, a number of respondents made comments to the issues with implementing the curriculum and these were coded under *implementation*. In particular, there were comments around support for implementation in the way of professional development but also classroom resources and funding.

> *"Teacher professional learning will be critical in helping teachers understand this new element." (Academic, South Australia).*

Band-level specific comment

Respondents were also prompted to leave feedback that was specific to individual band levels. Of the 104 respondents 20 provided such detailed feedback, some of whom in relation to multiple band levels.

Table 13 lists the number of respondents who provided feedback for each band level.

Table 13: Band-level specific open-ended feedback provided by Digital Technologies survey respondents

Band level	Number of respondents
Foundation	7
Year band 1-2	3
Year band 3-4	2
Year band 5-6	8
Year band 7-8	11
Year band 9-10	6

Differences between stakeholder groups

This section explores whether there were differences in responses between the different stakeholder groups. This exploration is based on comparisons of stakeholder categories with at least 30 respondents. This limited the exploration of such differences to 2 stakeholder dimensions: the level of the curriculum they reported on and the remoteness location of the schools they were linked to.

Level of the curriculum

There were a number of differences in perceptions about the revised curriculum between primary school level respondents and secondary school level respondents. Compared to secondary level respondents, primary level respondents were more likely to agree that the rationale was clear, that strands and sub-strands formed a coherent organisational structure that they were also clear about what is important, and that the band level descriptions provided a clear overview of learning at band levels (Figure 21). They were further more likely to confirm that the achievement standards align with essential content, that the content elaborations support teachers to integrate the cross-curriculum priorities and general capabilities and that the amount of content was manageable, although only half of the respondents indicated the latter.

On the other hand, secondary level respondents displayed higher levels of agreements with the aims, the proposition that key connections identify the most relevant general capabilities and that the achievement standards reflect a developmental progression (Figure 22).

Figure 21: Differences by level of curriculum I, Digital Technologies survey respondents

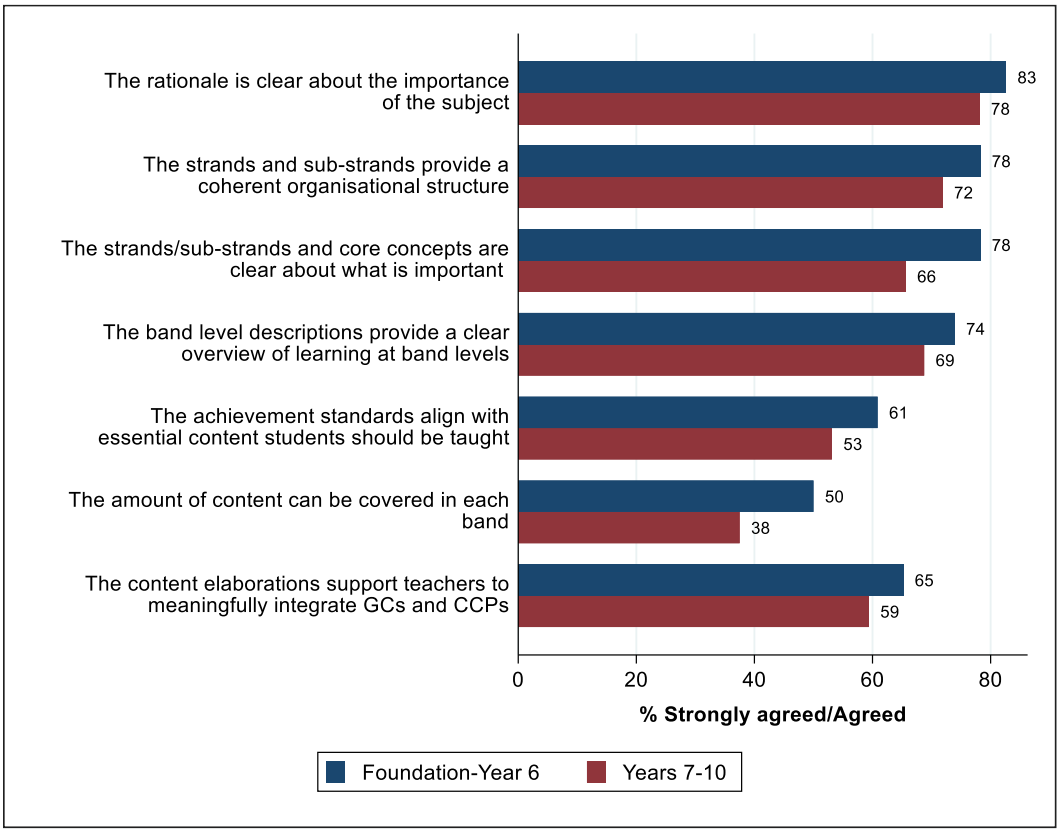
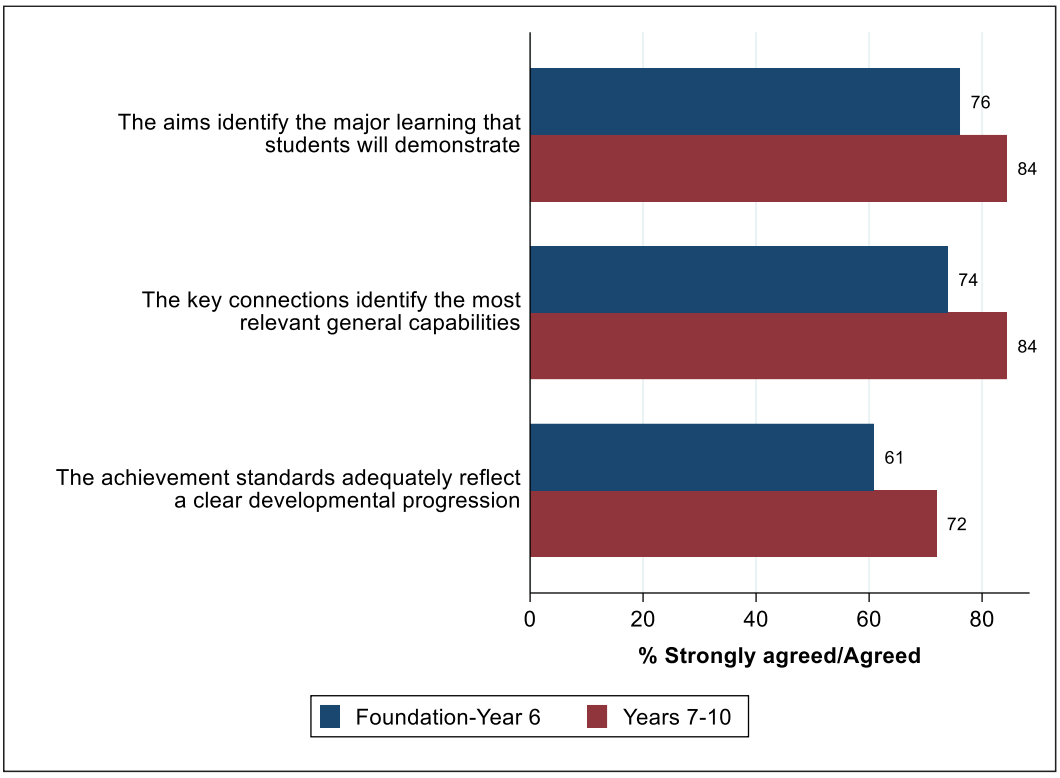


Figure 22: Differences by level of curriculum II, Digital Technologies survey respondents

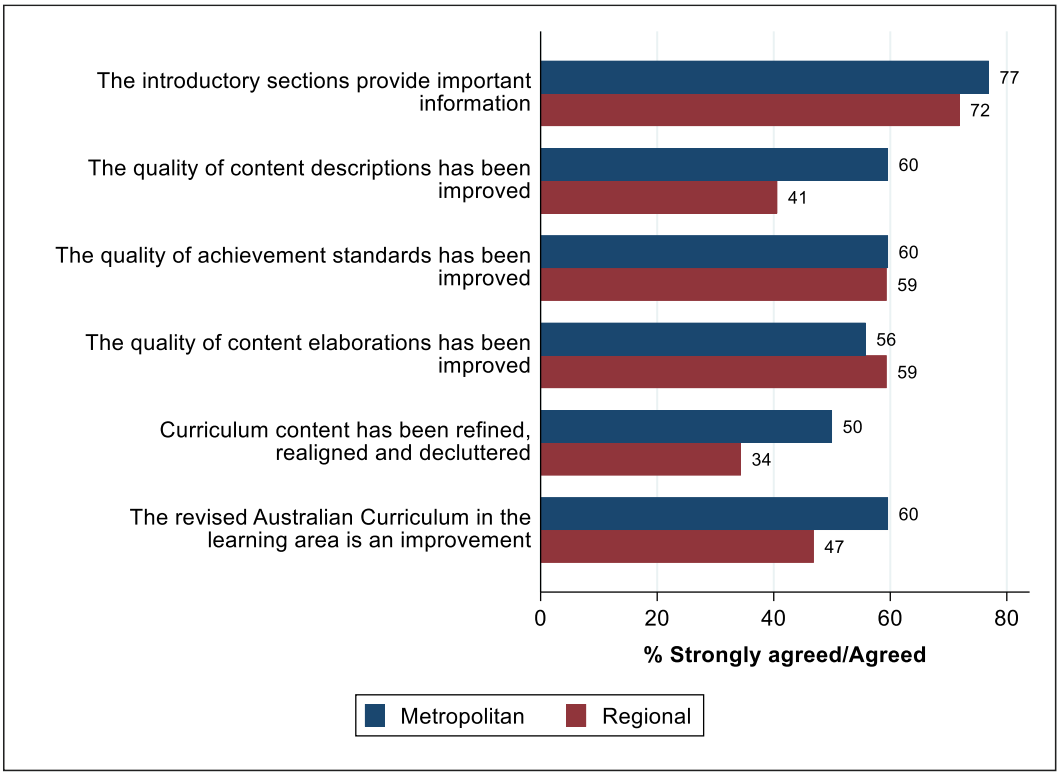


School location

Respondents who identified as teachers, school leaders, parents, students and schools were asked in which area their school was located. The majority of these respondents indicated metropolitan areas (n=52), which was followed by indicating regional areas (n=32) and indicating remote areas (n=3). Metropolitan and regional responses on the agreement statements are compared here.

Respondents with links to metropolitan scores had somewhat more favourable views on most elements of the curriculum. This particularly applied to perceptions on achievement standards and the manageability of the content each year. About 48% of the metropolitan respondents agreed or strongly agreed with the latter while this was only the case for 31% of the regional respondents. There were also some differences in the overall feedback shown in Figure 23. Metropolitan respondents were notably more likely to confirm that the quality of content descriptions had been improved (60% vs 41%), that the curriculum content had been refined, realigned and decluttered (50% vs 34%) and that the revised curriculum was an improvement (60% vs 47%).

*Figure 23: Overall feedback by school location, Digital Technologies survey respondents^*



^ Respondents who identified as teachers, school leaders, parents, students and schools

Summary - survey results

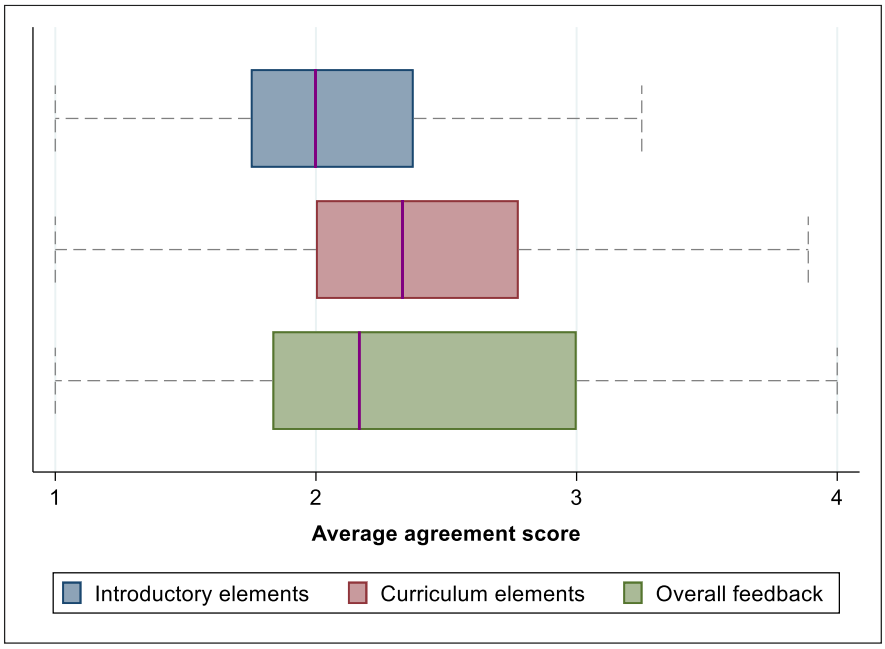
Respondents from Queensland (57%), those who identified as teachers (55%), those who were linked to Government schools (49%[10]) and those who were linked to schools in metropolitan areas (50%[11]) were the largest respondent groups that influence the overall survey results for Digital Technologies. Overall responses were also more influenced by those who responded for the F-6 curriculum (44%) than those who responded for the Y7-10 curriculum (31%), or the combined F-10 curriculum (25%).

The level of agreement tended to be highest in relation to statements about the introductory elements of the curriculum (Figure 4) than for the statements about in the curriculum elements (Figure 5) and the 5 TOR statements in the General feedback section (Figure 7).

[10] Percentage based on all respondents while the numerator only applied to teachers, school leaders, students, parents and schools.
[11] As above

This is also reflected in the distribution of the average agreement scores that respondents gave when responding to statements in the 3 different sections. These are plotted in Figure 24, where agreement is higher to the left end of the scale and lower toward the right end of the scale. This shows that average scores for the curriculum elements as well as the overall feedback were further distributed to the right on the 4-point agreement scale (towards disagreement) than those for the introductory elements.

Figure 24: Introductory elements, curriculum elements and overall feedback, average ratings, Digital Technologies survey respondents



Response options: 1 – Strongly agree, 2 – Agree, 3 – Disagree, 4 – Strongly disagree
Boxplots[12] show the distribution of average ratings across the 8 agreement statements in the Introductory elements section, across the 9 agreement statements in the Curriculum elements section and the 6 agreement statements in the Overall feedback section. Don't know responses were excluded from calculating averages.
The median is indicated by the pink line in each of the boxes.

Figure 25 ranks all 23 statements that sought an agreement rating in the survey according to the level of agreement they attracted. Of all these statements, the statements that the rationale was clear about the importance of the subject and that the aims identify the major learnings received the most positive agreement scores (both 83% agreement). At the other end, the manageability of content (47% agreement vs 47% disagreement) and the statement that the curriculum content had been refined, realigned and decluttered (47% agreement vs 44% disagreement) were least well received.

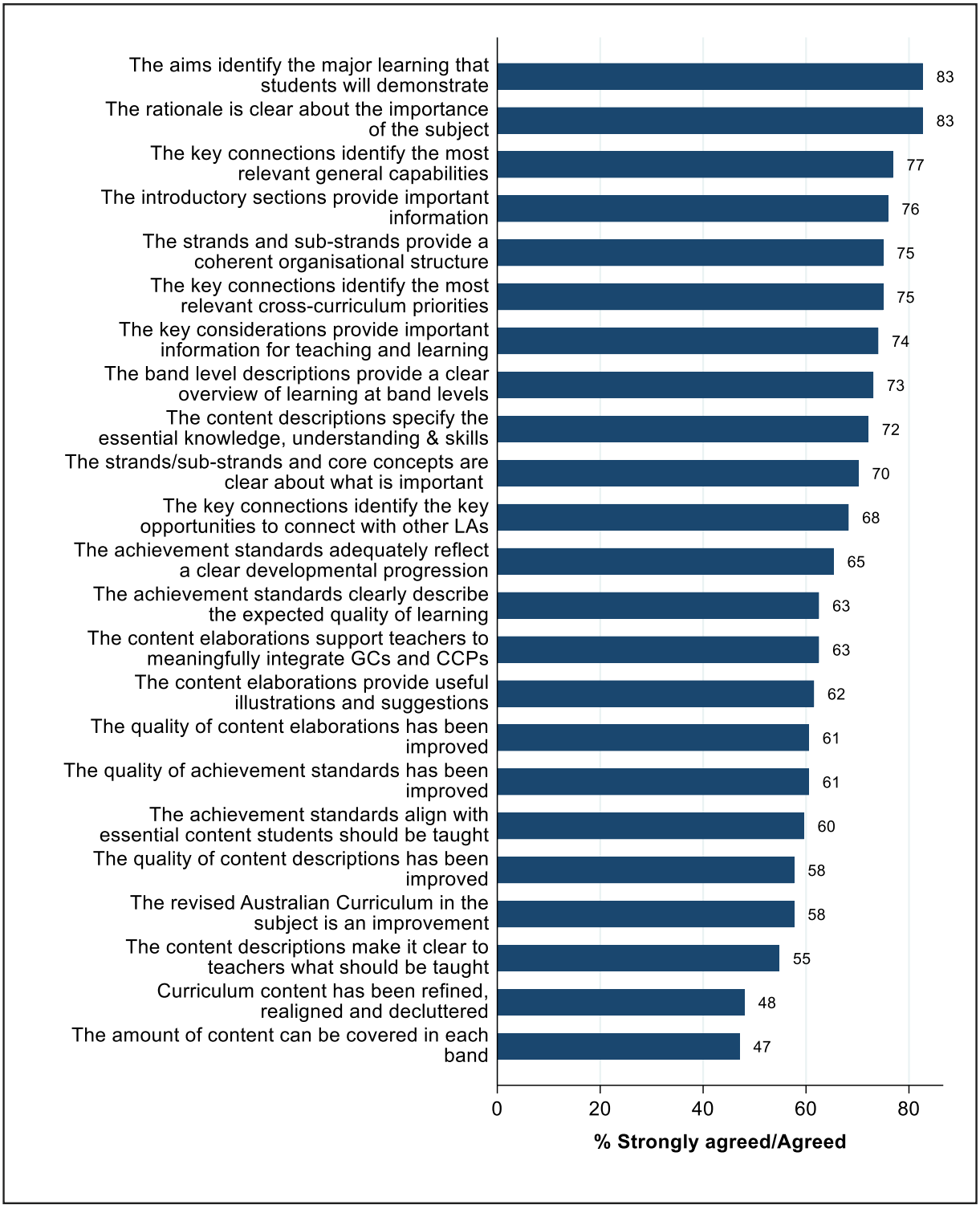
Based on levels of agreement/disagreement expressed in the survey data, key areas of concern for the revised Digital Technologies curriculum could lie in:

- the perceived manageability of curriculum content (47% disagreement);
- all presented aspects of the achievement standards (disagreement of between 34% to 39%);
- the clarity of content descriptions about what should be taught (42% disagreement with the relevant proposition) and, perhaps relatedly
- the perceived usefulness of content elaborations for planning teaching of content and as providing a arrange of context for integrating the CCPs and GCs (35% and 33% of disagreement).

[12] A box plot (also known as a box-and-whisker plot) displays the distribution of a variable in a way that highlights key summary statistics of the distribution: the median (a line separating the top 50% of values from the lower 50% that would appear in the middle of the box for a normally distributed, and any symmetric, variable); the 25th and 75th percentiles (Q1 and Q3), which mark the 2 ends of the box; and the whiskers, which mark the so-called upper and lower adjacent values (which are the most extreme values within 1.5 times the inter-quartile range (Q3-Q1) from the end of the box).

The agreement scores for the TOR statements suggest that about half of the survey respondents see the objectives of the Review met.

Figure 25: All statements by level of agreement, Digital Technologies survey respondents



Open-ended feedback captured in the survey indicates that there was support for separating the Foundation year from the Foundation to Year 2 band and that the inclusion of Aboriginal and Torres Strait Islander perspectives was also supported. There was also some support for the inclusion of Privacy and Security in current environment; however, also mixed feelings about it since it would require time to cover the required content.

Implementation issues was a notable theme that emerged from open-ended survey feedback with respondents suggesting support was required in the way of professional development but also classroom resources and funding for implementing the revised curriculum. Some respondents remarked that the language of the curriculum is (still) too complex, particularly for generalist teachers.

As 57% of all survey respondents were based in Queensland, the Queensland-specific context in which the Australian Curriculum is implemented was likely influential in shaping the overall results for Digital Technologies.

5.3 Learning area Technologies – survey summary

There were some differences in the stakeholder characteristics between Design and Technologies respondents on the one hand, and Digital Technologies respondents on the other. Of the 2 respondent groups, Design and Technologies respondents were much more likely to report on the Y7-10 curriculum and clearly more likely to come from Queensland (Table 14) although Queensland respondents were also notably over-represented among the latter respondents (relative to general population distributions).

Table 14: Stakeholder characteristics by subject, Technologies survey respondents

	Design and Technologies (n=133)	Digital Technologies (n=104)
Level of curriculum		
F-6	21%	44%
Y7-10	66%	31%
F-12	13%	25%
Respondent type		
Teacher	62%	55%
State of residence		
Queensland	71%	57%

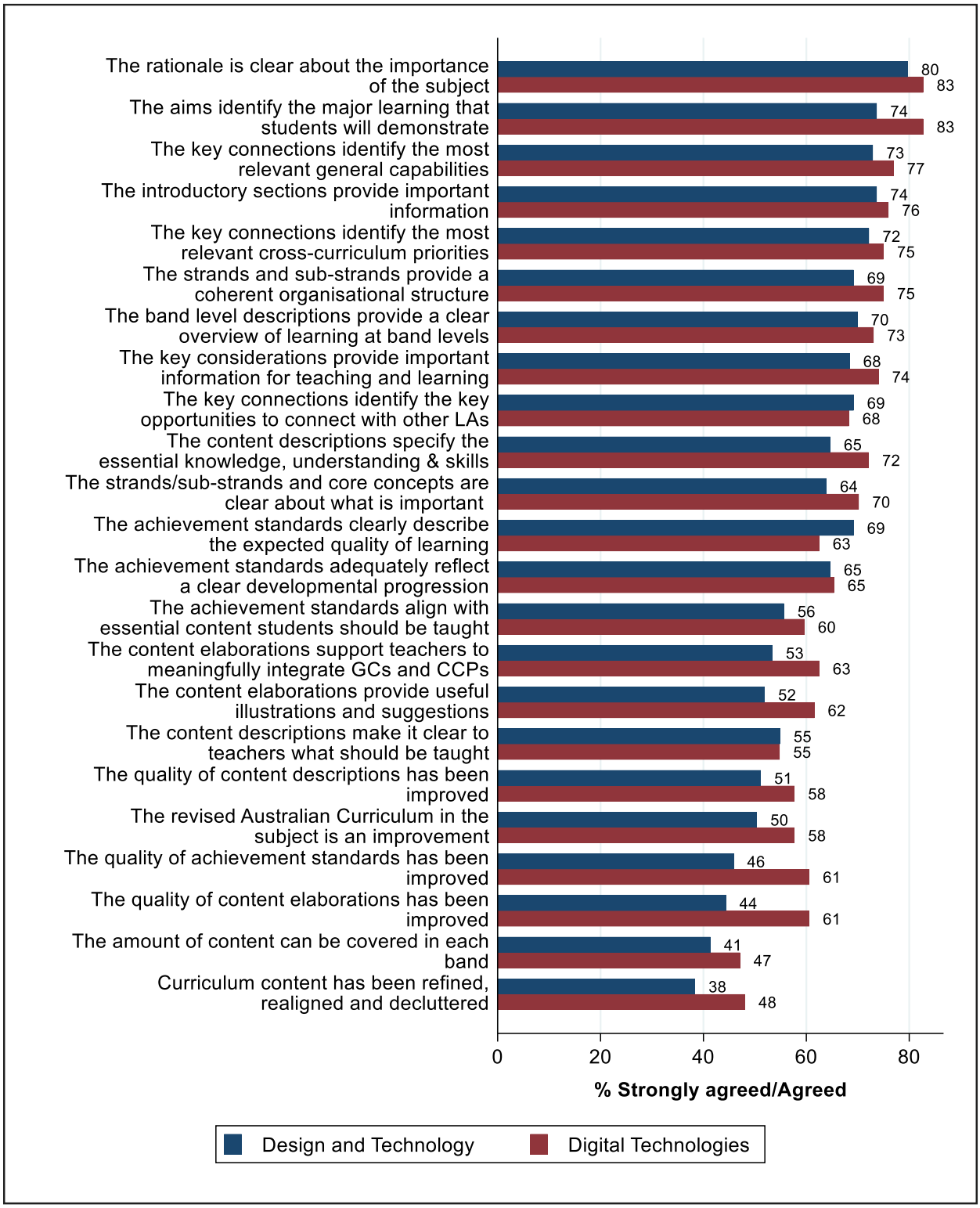
Differences in these characteristics could indicate that the subject-specific consultations were of varying interests to different groups of stakeholders. They also serve to caution when interpreting differences between subject-specific feedback within the Technologies learning area because such differences could be influenced by the differences in the characteristics of survey respondents. The following presentation of results for the 5 subjects should be seen in this context.

With few exceptions, Digital Technologies respondents expressed higher levels of agreement than Design and Technologies respondents (Figure 26). Despite this, the patterns of agreement shown by both groups of respondents is very similar: when the 23 agreement statements from the survey are ranked according to the level of agreement they received, the ranking is almost identical for both groups. Both groups expressed most agreement with some elements of the introductory sections, in particular with the formulation of the rationale and aims, but also with the key connections identifying the most relevant general capabilities and cross-curriculum priorities.

Both groups were notably less likely to see that the content elaborations supported teachers to integrate the cross-curriculum priorities and general capabilities and that they provided useful illustrations for teachers. Both groups were also far less positive about the learning described in the achievement standards aligning with essential content that should be taught and about the proposition that content descriptions make it clear to teachers what should be taught. Similarly, both groups expressed their lowest level of agreement for the 5 TOR statements and the proposition that the amount of content can be covered in each band.

The same propositions were then seen as more or less agreeable by Design and Technologies and Digital Technologies respondents while the level of agreement was generally higher among Digital Technologies respondents.

Figure 26: All survey items by subjects, Technologies survey respondents



Open-ended comments on the curriculum for both subjects supported the separation of the separation year and there were other expressions of supporting other aspects of the revised curriculum. Critical views in relation to both subjects concerned the clarity of language used in the curriculum, the amount of content to be covered and, somewhat related, the perceived need for implementation support.

6. Email submissions

6.1 Submissions received

Of the email submissions, there were a total of 35 specifically related to the learning area of Technologies. Table 15 provides the breakdown of email submissions, according the subjects within the learning area of Technologies. As is indicated in Table 15, the majority of email submissions did not apply to one specific subject within Technologies.

Table 15: Breakdown of email submissions, according to subjects within the learning area of Technologies

Subject Area	Number of email submissions	Percentage
Design and Technologies	5	14.3%
Digital Technologies	10	28.6%
Both or General	20	57.1%
Total	**35**	**100.0%**

Of the 35 email submissions, there were 15 submissions that had an attachment that was coded alongside the email message provided. The remainder did not have an attachment, but the content within the emails was coded. The findings from this analysis are presented in the section on Feedback from Email Submissions (Section 6.3).

6.2 Stakeholder profile

A number of email respondents had self-disclosed their position and/or affiliation, making it possible to summarise some of the demographic characteristics of respondents.

It could be determined that of email respondents in this learning area, the majority represented some form of association or body, while a smaller, yet sizeable, proportion were academics, experts or other community members (Table 16).

Table 16: Type of stakeholder, Technologies email submissions

	Number of email submissions	Percentage
Teachers or schools	2	5.7%
Association or body	19	54.3%
Academics, experts or other community	12	34.3%
Unclear	2	5.7%
Total	**35**	**100%**

A list of organisations which self-identified in email submissions across all learning areas, general capabilities and cross-curriculum priorities is provided in Appendix F.

6.3 Findings from email submissions

The code frame (see Appendix C), was utilised to analyse the content of the email submission feedback. As per the open-ended survey feedback, respondents may make the same point multiple times with different examples, but a theme is only coded once for that respondent.

6.3.1 Major themes and subthemes

Table 17 summarises the main themes that emerged from the feedback from the 35 email submissions, alongside the number and percentage of email respondents discussing this theme.

The top 5 ranked themes were: *clarity; content has improved and should remain; content should be added; implementation* (which was technically out of scope), and *manageability.*

Table 17: Summary of major themes, Technologies email submissions

Major Theme	Number of email submissions	Percentage
Introductory elements	14	40.0%
Content has improved & should remain	20	57.1%
Content should be added	20	57.1%
Content should be removed	14	40.0%
Evidenced-based content	2	5.7%
Inclusive Content	10	28.6%
Manageability of Content	16	45.7%
Sequencing of Content	9	25.7%
Achievement Standards	10	28.6%
Clarity	25	71.4%
Implementation	20	57.1%
Other	4	11.4%

Table 18 presents the 5 most prevalent themes with their respective subthemes. The leading theme was around *clarity.* Within this theme were comments from respondents who perceived improved clarity and better organisation of materials of the overall curriculum, as well as the curriculum elements such as the content descriptions.

> *"Increasing the number of content descriptions is welcomed where doing so provides additional clarity of what the learning expectations are without increasing the amount of content in the subject overall" (Grok Academy)*

However, there tended to be more critical feedback in relation to *clarity*, with the subthemes showing that more respondents saw that further revisions or refinements were needed to the improve the clarity and conciseness of content descriptions and achievement standards, and the ease of readability of the curriculum.

> *"Based on the anecdotal experience of teachers as well as the results of a nationwide survey of schools, it's clear that the Digital Technologies curriculum is having a positive impact, but there's still a way to go with respect to refining the curriculum and implementing it. In particular, the distinction between using computers (digital literacy) and creating with technology (Digital Technologies) needs to be more clearly defined in the curriculum, which would clear up some of the confusion and improve the implementation of Digital Technologies curricula nationwide. (Australian Computer Society Inc.).*

The 2nd leading theme was c*ontent has improved and should remain.* Within this theme, respondents saw improvements to the curriculum, including a recognition that this learning area would equip students with the necessary skills they needed for the future digital environment.

> *"We support the change in name of the ICT capability to Digital Literacy. We are also really pleased to see how the curriculum is moving with changes to digital environment, as evidenced by the*

welcomed inclusion of privacy and security in the Digital Technologies curriculum." (Australian Business & Community Network).

"I absolutely agree with the goals of refining, realigning, and decluttering the content so it focuses on the essential knowledge and skills students should learn and is clearer for teachers on what they need to teach. I feel like the changes made to the Digital Technologies curriculum meet that goal. I especially appreciate the numerous content elaborations and the idea of "user stories" as a way of making project requirements and thinking about one's audience more relatable to students." (Code.org)

However, whilst there was some feeling of improvements overall, there were also further recommendations for additions or changes, captured under the 3rd leading theme of *content should be added*. The most common recommended addition was related to the necessity to improve the glossary, although this was not part of the Review. Other examples included providing further definitions and examples to support teaching.

"A comprehensive glossary is important for Digital Technologies and providing a variety of "Illustrations of Practice" will also play a part in supporting teachers of this subject." (The Queensland Society for Information Technology in Education).

"Whilst a glossary may appear, some of the verbs used e.g., explore, investigate, etc. will need to be further elaborated with teachers. There is a lot of work to be done to ensure teachers understand what is meant by "user stories". What should a user story look like and how would it be used to define a problem? Examples and clear definitions are needed." (The Australian Technologies Teacher Educators Network).

In addition, a number of respondents raised issues around *implementation* (which was the 4th leading theme), particularly around teacher capability and expertise and resources. While these comments were technically out of scope of the terms of reference of the consultation, they were raised throughout, and were coded for comprehensiveness of capturing feedback.

"There are other areas to address, of course. Teacher training and availability; student perception and equipment are all issues that need to be looked at – but we can start with the curriculum in this review, and give Digital Technologies the kind of clarity and consistency that most other subjects enjoy." (Australian Computer Society Inc.).

"Any review of the curriculum and its content needs to take into account unique geographically isolated distance education contexts. Curriculum development for Distance Education courses should be undertaken by those who have a working knowledge of the needs of rural and remote students and distance education tutors in geographically isolated schoolrooms. Consideration of the time commitment required for course implementation as well as ensuring the resources are suitably prescriptive, readily available and easily interpreted by untrained home tutors is essential." (Isolated Children's Parents' Association of Australia Inc.)

As noted in Table 18, some respondents commented on the issues of *manageability* (5th leading theme), with many seeing the need for further refinement and revision to reduce the amount of content.

Table 18: Summary of subthemes, Technologies email submissions

Major Theme and Subtheme	Number of email submissions	Percentage
Clarity	**25**	**71.4%**
The overall language of the curriculum is clearer and/or easier to understand	6	17.1%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	22	62.9%
The wording of the content descriptions is clearer and/or easier to understand	11	31.4%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	16	45.7%
The wording of the achievement standards is clearer and/or easier to understand	8	22.9%
The wording of the achievement standards need further clarity	10	28.6%
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand	4	11.4%
The wording of introductory elements (rationale, aims, key connections) could use further revision to be clearer and/or easier to understand	5	14.3%
Content has improved & should remain	**20**	**57.1%**
General views that content had improved	13	37.1%
Content has better alignment with rationale/aim of learning area	1	2.9%
Content has better alignment with who we want our children to become	2	5.7%
Various other LA specific content that has improved or should remain	10	28.6%
Content should be added	**20**	**57.1%**
General views that additional or new content should be added	6	17.1%
Additional or new content should be added for better alignment with rationale/aim of learning area	3	8.6%
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)	6	17.1%
Various other LA specific content that should be added	17	48.6%
Implementation (out of scope)	**20**	**57.1%**
Pedagogy	8	22.9%
Assessment	5	14.3%
Implementation support (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	18	51.4%
Manageability (Amount of Content)	**16**	**45.7%**
Decluttering of content evident, the amount of content is more manageable	3	8.6%
Still too much content/further decluttering needed	15	42.9%

6.4 Summary – Email submissions

In total, there were 35 email submission related to the learning area of Technologies. While a number of respondents were positive about the direction of the curriculum, there were also calls for further revision or refinement. Some respondents called for further clarity to elements, particularly around the language of the overall curriculum and content descriptions to improve ease of readability. There were also some suggestions for additional explanations and examples to support teachers. Issues of implementation were raised, particularly around resourcing, and there were some concerns about the manageability of content.

7. Jurisdictional feedback

7.1 Stakeholder profile

Submissions were invited from each state and territory as well as national sector peak bodies. Nine submissions were received in total: Queensland, New South Wales, Victoria, Western Australia, South Australia, Tasmania, the Northern Territory, Independent Schools Australia (ISA), and the National Catholic Education Commission (NCEC). The Australian Capital Territory abstained from providing feedback at this point while noting its contributions to the Review via working groups, individual submissions, regular meetings and trial schools.

Table 19 lists the participating jurisdictions and national sector peak bodies that provided feedback on the learning area Technologies. Seven of the 9 participating jurisdictions and national sector peak bodies commented on each of the 2 subjects and 3 of those also on the learning area more generally. Tasmania and the Northern Territory only provided more general comments for the learning area.

Table 19: Participating jurisdictional stakeholders by subject, learning area Technologies

	Design and Technologies	Digital Technologies	LA level
New South Wales	✓	✓	
Victoria	✓	✓	
Queensland	✓	✓	
South Australia	✓	✓	
Western Australia	✓	✓	✓
Northern Territory			✓
Tasmania			✓
Independent Schools Australia	✓	✓	✓
National Catholic Education Commission	✓	✓	✓

The jurisdictions were invited to respond using a pre-defined template that aligned with the online survey that was publicly available, although this template was not always followed. As already indicated by the content of Table 19, jurisdictions chose to comment on different elements of the curriculum and to very different degrees.

7.2 Jurisdictional responses to Overall feedback questions

Table 20 indicates that, ISA, Northern Territory and Tasmania expressed agreement with the overall feedback statements of the survey, which included the 5 TOR statements, while Western Australia and Queensland disagreed with the TOR statements

While Victoria, New South Wales, South Australia, and the NCEC did not respond to the overall statements, analysis of the qualitative data indicates that South Australia and the NCEC were generally positive about the introductory sections, while also suggesting further improvements to the strands, sub-strands, and core concepts. Victoria also indicated that these elements could be further improved. Victoria, South Australia, and the NCEC all provided mixed feedback about the key connections. Victoria, New South Wales, and South Australia indicated that content descriptions had improved in clarity. Other major themes and subthemes gleaned from analysis of qualitative data are reported in Section 7.3.

Table 20: Overall feedback by jurisdiction

	ISA	NT	TAS	WA	QLD^
The introductory sections provide important information					2
The quality of achievement standards has been improved					2
The quality of content descriptions has been improved					2
The quality of content elaborations has been improved					2
Curriculum content has been refined, realigned and decluttered					1 1
The revised Australian Curriculum in the LA is an improvement on the current version					1 1

^ Qld provided separate ratings for Design and Technologies and Digital Technologies. The circles and numbers in the circles indicate how many times a rating occurred.
VIC, NSW, NCEC and SA did not provide ratings to the Overall feedback survey questions. Tasmania did not provide a rating for the achievement standard question. The ACT did not provide a submission.

Strongly agree | Agree | Disagree | Strongly disagree

7.3 Major themes and subthemes

Because only a few jurisdictions provided feedback around specific subjects and/or it was not always discernible whether the feedback was relevant to a subject or the learning area more broadly, this section explores the major themes and subthemes in relation to the Technologies learning area rather than specific subjects. However, some quotes from jurisdictional feedback pertaining to specific subjects are included in relation to the major themes and subthemes.

The themes that were most prominent in participating jurisdictions' feedback across the learning area and subjects were, in order, *clarity*, *introductory elements*, *content has improved or should remain*, *content should be added*, and *manageability*.

Within the theme of *introductory elements*, most jurisdictions agreed that the introductory elements had improved:

> *"The Digital Technologies rationale clearly articulates the importance of the subject to develop students' skills in developing digital solutions for real-world problems. It emphasises the practical nature of the subject and highlights the inherent problem-solving and thinking skills throughout the curriculum." (Queensland)*

> *"The revised technologies curriculum is clearer and simpler, particularly within the primary years as it provides more support and direction for teachers." (NCEC)*

> *"The introductory sections promote the importance of Technologies as a learning area as well as the unique importance of the Digital Technologies subject." (Queensland)*

> *"Constructive change to include core concepts, big ideas, understandings, skills or processes central to the Technologies' learning areas." (South Australia)*

> *"Repurposing and realigning of content to make authentic connections across learning areas. For example, data collection and interpretation now addressed in Mathematics: Statistics." (Northern Territory)*

Jurisdictions also provided feedback on improvements that are still required for the introductory elements:

> *"In sub-strands with more than one content description, thread titles as a further organising element would support teacher understanding of the difference between them and the intent of each". (South Australia)*
>
> *"We are concerned that Technologies contexts have been re-ordered so that the sub-strands are no longer listed alphabetically but rather link to specific Technologies contexts. While we understand that this change is intended to make it easier for teachers to see a connection between the sub-strands – especially materials and technologies specialisations, and engineering principles and systems – it should be remembered that the curriculum document is not a syllabus. There are various ways that strands and sub-strands can be addressed within school contexts" (Victoria)*
>
> *"The elements mentioned in the rationale are insufficiently developed and insufficiently visible in the revised curriculum content." (South Australia)*
>
> *"The architecture of the curriculum structure should have highlighted the design process, transferrable design skills and the interrelationships between the 2 subjects, such as the inclusion of a range of appropriate technologies, differing management skills and styes, enterprising behaviours, marketing strategies and integrity, and improved design creativity." (Western Australia)*

Similarly, whilst there was agreement that key connections had improved, there was feedback from the majority of jurisdictions that further improvements should be made:

> *"A review of the key connections is necessary to reflect the learning area's scope of learning more accurately, as well as strengthen integration opportunities, e.g. the connections to the general capabilities and Mathematics represent a narrow view of the learning area generally and Digital Technologies more specifically." (Queensland)*
>
> *"The relevance to Cross-Curriculum Priorities and General Capabilities is great however the inclusion of inter-cultural understanding is also there and should be noted. Really strong connections to sustainability." (ISA)*
>
> *"Content elaborations that provide opportunities to recognise and explore Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority are a positive inclusion. However, in some instances these inclusions appear tokenistic, insensitive and include deficit discourse around Aboriginal peoples and Torres Strait Islander peoples" (Queensland)*
>
> *"The 'Intercultural Understanding' capability is mentioned in the aims, but insufficiently developed in the revised curriculum" (South Australia)*
>
> *"Teachers would like more authentic examples of how to implement the curriculum in an integrated way with other learning areas especially in F-6 in the elaborations." (NCEC)*

In terms of *clarity*, feedback indicated that aspects of clarity had improved, including clarity of content descriptions and introductory elements:

> *"Design and Technologies Years 7-10 - Improved wording in line with Senior syllabus." (ISA)*
>
> *"Terminology has been refined to remove ambiguity, ensure improvement in understanding and make the use of language more consistent." (Victoria)*
>
> *"The revised technologies curriculum is clearer and simpler, particularly within the primary years as it provides more support and direction for teachers." (NCEC)*

Commentary also indicated that aspects of overall language, content descriptors and achievement standards could benefit from further clarity:

> *"The achievement standards have not been improved. The single-paragraph structure decreases the clarity of the current two-paragraph structure, which differentiates the two strands and supports planning, teaching and assessment." (Queensland)*
>
> *"Achievement Standards in one paragraph has the potential of creating too much cognitive overload for teachers." (Tasmania)*

"The terminology across Foundation to Years 10 is often confusing, too technical, and not age-appropriate." (Queensland)

"Aligning the achievement standard with the content description and written as one paragraph." (Northern Territory)

A prominent subtheme was that *various learning area specific content has improved* and presented better alignment with the learning area:

"This provides a realistic scope for teachers in both Foundation and Years 1-2. • Fewer content descriptions in F-6 make the possibility of bringing this learning area to students more realistic." (Tasmania)

"Like the introduction of the privacy and security strand and the retaining of key concepts is important." (ISA)

"Addition of a new sub-strand to Digital Technologies – considering privacy and security. Expanding the concepts to include greater emphasis on personalised use for technology." (Northern Territory)

"Engineering principles sub strand – Years 7 and 8 offering more options by removing electromechanical systems and replacing with engineered systems. Years 9/10 sub strand technologies contexts – Years 9/10 is better as they only have to address one of the 4 areas." (ISA)

"Most of the changes to the digital technologies curriculum are seen as positive. The digital technologies curriculum requirements for F-6 have more clarity." (NCEC)

"The quality of content descriptions has been improved in some important respects" (Victoria) "The proposed content descriptions changes do not represent an improvement." (Queensland)

"We support splitting the content descriptions for food and fibre production and food specialisations into 2." (Victoria)

"Primary school teachers indicated strong support for the inclusion of the 'Privacy and security' sub-strand in the F-6 curriculum." (Western Australia)

The inclusion of Foundation content was also explicitly supported:

"The inclusion of 'play' within the Foundation-level description is welcomed but the exploration of 'digital systems, software, cameras and programmable devices' poses accessibility issues for some schools and may be difficult to implement, especially for teachers with minimal digital skills" (Queensland)

"Some Content Descriptors have been removed for the Foundation year – this makes it easier for Prep teachers to know what is expected. • A positive move with the identification of content for Foundation year, separate from Years 1 and 2." (ISA)

"Educators appreciate the Foundation level standing on its own." (Tasmania)

"The proposed curriculum has removed content from year-levels F–2, and broken it up between Foundation level and year-levels 1–2. We commend the inclusion of content at Foundation: this supports the early years of learning and will help teachers find content that can be taught at this level." (Victoria)

Jurisdictions also commented on the need for further alignment within the learning area and some suggested some amendments in this context:

"Many content descriptions do not align with the relevant achievement standards, both conceptually and cognitively, and there is concern regarding the age-appropriateness of content." (Queensland)

"In the Technologies Curriculum, 'design thinking' is not as well represented in Digital Technologies as it is in Design and Technologies." (New South Wales)

"Although the proposed curriculum aims to remove duplication with Science and Art, it should nonetheless provide opportunities to make explicit connections between these learning areas. It is

important that students use the design processes in the Technologies contexts, and this may be overlooked if they are delivered only through the other learning areas" (Victoria)

"Privacy and security is an important element of Technologies. However, this would be better placed in the General Capability: Digital Literacy, as this is a responsibility for all teachers. How will the Privacy and Security sub-strand be assessed on a 5 point scale? This should be present in a Content Description, but should not be included in the Achievement Standard."

"The removal of the Design and Technologies content from the F-2 is a concern.' 'Analyse needs or opportunities for designing…'; this indicates the need for common language and improved alignment between both subjects." (Western Australia)

Within the theme of *inclusive content* jurisdictions commented on concerns that content was not age appropriate:

"The removal of content in F-6 does not provide the foundation of appropriate, essential and fundamental skills required by students to access and engage the curriculum in later years." (Western Australia)

"Cognitive verbs are used in a disorganised way with what appears to be a misunderstanding of the processing demands of developmental appropriateness in each band level." (ISA)

"In Years 7-10, the use of verbs has increased the complexity of the content descriptions, increasing the demands of the learning will be out of reach for many students." (Western Australia)

Finally, most jurisdictions agreed that more decluttering was still needed:

"The curriculum has not been decluttered. The Technologies learning area content has increased significantly. The proposed Digital Technologies subject requires teachers to have increased technical skills, and this causes major accessibility concerns." (Queensland)

"Nothing has been simplified. In Year 1 more content has been added. It is extremely difficult to fit all the learning areas into a week and teach them effectively. Adding things to this subject instead of embedding the concepts in other subject areas is too much in the lower primary sector." (ISA)

"However, the digital technologies curriculum has been substantially increased in terms of content, complexity and cognitive expectations, with no increase in time allocation" (NCEC)

"Examples of content duplication and overlap also remain. In the Design and Technologies Curriculum, content descriptions relating to the generation of design ideas in Foundation and Years 1 and 2 (AC9TDEFP01 and AC9TDE2P01) could be combined" (New South Wales)

"Overall, however, content for Digital Technologies appears to have increased even as some important content has been lost. The total number of content descriptions has increased from 43 currently to 73 in the proposed curriculum – largely because a new sub-strand has been added and existing CDs have been split up to create new ones." (Victoria)

7.4 Summary

Jurisdictional feedback on Technologies was varied, with all participating jurisdictions offering positive feedback as well as suggested further improvements. Aspects of the introductory elements received broad support. In terms of manageability, while some decluttering was acknowledged, there was a pattern in views indicating that more is needed. Specific suggestions were provided by various jurisdictions. Some jurisdictions felt that language and terminology remained dense and confusing with too much specialist language. There were mixed views on the Privacy and Security strand with some endorsing this content and the approach. Others found this content and the approach taken to it confusing and felt it could be incorporated into existing content descriptions or placed under the Digital Literacy capability.

A Foundation year was generally welcomed. There was broad support for the inclusion of Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority, but some concerns were raised around tokenism, the need for cultural sensitivity, inclusivity, and deficit language.

Appendix A – Questionnaire

Consultation survey questions
For the learning areas and subjects

Introduction

The learning area survey gives you the opportunity to provide feedback on the proposed changes to any of the following learning areas and subjects.

- Mathematics
- English
- Science
- Humanities and Social Sciences (HASS)
    - HASS Foundation – Year 6
    - History Years 7–10
    - Geography Years 7–10
    - Civics and Citizenship Years 7–10
    - Economics and Business Years 7–10
- Health and Physical Education
- Technologies
    - Digital Technologies
    - Design and Technologies
- The Arts
    - The Arts Foundation – Year 6
    - Dance Years 7-10
    - Drama Years 7-10
    - Media Arts Years 7-10
    - Music Years 7-10
    - Visual Arts Years 7-10
- Languages
    - French
    - Japanese
    - Chinese
    - Italian

The survey has 3 sections.

1. **Background information:**

The survey begins by gathering some demographic information and asking you to nominate the levels, and the specific subjects (where relevant) that you wish to comment on.

2. **General questions**

This is the main part of the survey. In this section you will be asked to respond to a number of statements about the different elements of the consultation curriculum:

- *Introductory elements* - the rationale, aims, organisation of the learning area, key connections and key considerations

- *Curriculum elements* - the level descriptions, achievement standards, content descriptions and content elaborations.

There is also a section called *Overall feedback*, where you will be asked to respond to some overall statements related to the terms of reference for the Review.
You will also be invited to add any general comments about what has improved and what needs further refinement.

3. Year/band level specific feedback

This section is optional and you can comment on as many levels as you wish. You will be able to add any comments about what has improved and what needs further refinement for the particular levels you select.

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Section 1: Background information questions

Please select which levels you are giving feedback on (Note: options will vary depending on what learning area and subject survey you complete).

- Foundation - Year 6 curriculum
- Years 7 - 10 curriculum
- Foundation - Year 10 curriculum

Please indicate if you are answering the survey as an individual or as a group.

☐ Individual ☐ Group

Individual response follow up questions

In which state or territory are you based?

- Australian Capital Territory
- New South Wales
- Northern Territory
- Queensland
- South Australia
- Tasmania
- Victoria
- Western Australia
- National
- Other

Which CATEGORY best describes you?

- Primary teacher*
- Secondary teacher*
- F-12 teacher*
- School leader – Primary*
- School leader – Secondary*
- School leader – F-12*
- Academic
- Parent*
- Student*
- Employer / Business
- Other

**If you select this category as an individual or group you will be asked 2 additional questions.*

In which sector is your school?

- Government
- Catholic
- Independent

What best describes your school's location?

- Metropolitan
- Regional
- Remote

Group response follow up questions

In which state or territory are you based?

- Australian Capital Territory
- New South Wales
- Northern Territory
- Queensland
- South Australia
- Tasmania
- Victoria
- Western Australia
- National
- Other

Which CATEGORY best describes you?

- School*
- Professional association
- University faculty
- Education authority
- Parent organisation
- Community organisation
- Other

Please indicate the NAME of the group or institution below. (Note: Schools will not be asked to supply the school name).

_____

Describe the membership of your group.

_____

Number of members/people represented in this response (approx.). Please use numerical values.

_____

Section 2: General feedback

Indicate your level of agreement with the following statements.

Introductory elements

Rationale

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The rationale is clear about the importance of the learning area/subject	☐	☐	☐	☐	☐

Aims

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The aims identify the major learning that students will demonstrate	☐	☐	☐	☐	☐

Organisational structure

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The strands/sub-strands provide a coherent organisational structure	☐	☐	☐	☐	☐
The strands/sub-strands and core concepts are clear about what is important in the learning area/subject	☐	☐	☐	☐	☐

Key connections

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The key connections section identifies the most relevant general capabilities	☐	☐	☐	☐	☐
The key connections section identifies the most relevant cross-curriculum priorities	☐	☐	☐	☐	☐
The key connections section identifies the key opportunities to connect with other learning areas.	☐	☐	☐	☐	☐

Key considerations

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The key considerations section provides important information for planning teaching and learning	☐	☐	☐	☐	☐

Curriculum elements

Year/band level descriptions

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The year/band level descriptions provide a clear overview of the learning that students should experience at the year/band level	☐	☐	☐	☐	☐

Achievement standards

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The achievement standards clearly describe the expected quality of learning students should typically demonstrate by the end of the year/band	☐	☐	☐	☐	☐
The achievement standards adequately reflect a clear developmental progression.	☐	☐	☐	☐	☐
The learning described in the achievement standards aligns with the essential content students should be taught.	☐	☐	☐	☐	☐

Content descriptions

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The content descriptions specify the essential knowledge, understanding and skills that should be learned.	☐	☐	☐	☐	☐
The content descriptions make it clear to teachers what should be taught.	☐	☐	☐	☐	☐
The amount of content can be covered in each year/band. *Note: If you answer disagree or strongly disagree to this statement you will be given this follow up question (see below).*	☐	☐	☐	☐	☐
What content should be removed or what revisions are needed to make the content more manageable in the learning area/subject curriculum?					

Content elaborations

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The content elaborations provide useful illustrations and suggestions on how to plan and teach the content.	☐	☐	☐	☐	☐
The content elaborations provide a range of contexts that support teachers to meaningfully integrate the general capabilities and cross-curriculum priorities	☐	☐	☐	☐	☐

Overall feedback

	Strongly agree	Agree	Disagree	Strongly disagree	*Don't know*
The introductory sections provide important information.	☐	☐	☐	☐	☐
The quality of content descriptions has been improved.	☐	☐	☐	☐	☐
The quality of achievement standards has been improved.	☐	☐	☐	☐	☐
The quality of content elaborations has been improved.	☐	☐	☐	☐	☐
Curriculum content has been refined, realigned and decluttered.	☐	☐	☐	☐	☐
The revised Australian Curriculum in the learning area/subject is an improvement on the current version.	☐	☐	☐	☐	☐

Optional comments:
If you would like to provide feedback about general aspects of the revised learning area/subject that **have improved,** please use the comments box.

If you would like to provide feedback about general aspects of the revised learning area/subject curriculum that **need further improvement,** please use the comments box.

Section 3: Band/level specific feedback (optional)

Would you like to give feedback on a specific year or band level?

- Yes
- No

If you answer No, you will be asked to SUBMIT the survey.
If you answer Yes, you will be asked which year or band levels you would like to provide feedback on.
Then you will be invited to provide specific feedback in comments boxes for the following 2 questions.

Please add your comments about aspects of the revised learning area/subject for band/level curriculum that **have improved.** If you comment on specific content descriptions or elaborations please reference the code number.

Please add your comments about aspects of the revised learning area/subject for band/level curriculum that **need further improvement.** If you comment on specific content descriptions or elaborations please reference the code number.

Appendix B – Changes to survey statements in reporting

Question labels that were changed in the reporting are listed below.

Wording in questionnaire	Wording in report
The strands/sub-strands and core concepts are clear about what is important in the subject	The strands/sub-strands and core concepts are clear about what is important
The key connections section identifies the key opportunities to connect with other learning areas	The key connections identify the key opportunities to connect with other LAs
The key considerations section provides important information for planning teaching and learning	The key considerations provide important information for teaching and learning
The band level descriptions provide a clear overview of the learning that students should experience at the band level	The band level descriptions provide a clear overview of learning at band levels
The achievement standards clearly describe the expected quality of learning students should typically demonstrate by the end of the year	The achievement standards clearly describe the expected quality of learning
The learning described in the achievement standards aligns with the essential content students should be taught	The achievement standards align with essential content students should be taught
The content descriptions specify the essential knowledge, understanding and skills that should be learned	The content descriptions specify the essential knowledge, understanding & skills
The content elaborations provide useful illustrations and suggestions on how to plan and teach the content	The content elaborations provide useful illustrations and suggestions
The content elaborations provide a range of contexts that support teachers to meaningfully integrate the general capabilities and cross-curriculum priorities	The content elaborations support teachers to meaningfully integrate GCs and CCPs

Appendix C – Code frame

A code frame to code the open-ended feedback was co-designed with ACARA. Based on scrutiny of documentation of the proposed curriculum revisions, survey materials and preliminary survey responses, along with ongoing consultation with ACARA, the following themes, and subthemes were established as a code frame.

The themes and subthemes of the code frame which apply to all learning areas are described in this section. The structure of main themes and subthemes is below. A *Various other learning area specific content…* category is assigned to 3 of the main themes. This category typically captures a wide variety of opinions and suggestions that respondents expressed in each learning area under the main theme and outside the subthemes of the respective main theme. The category should be interpreted as an 'other' category under the respective main theme. It does not represent a homogenous subtheme that can stand meaningfully by itself.

Theme/Subtheme
Introductory elements: This theme encapsulates views regarding the introductory elements of the curriculum. These subthemes are as follows:
The rationale/aims have improved
The rationale/aims need further improvement
The strand/sub-strands/core concepts have improved
The strand/sub-strands/core concepts need further improvement
The key connections have improved
The key connections need further improvement
Content has improved/should remain: This theme reflects views about the improvements to the curriculum, based on the proposed revisions, along with comments about content that should remain as part of the revisions. These subthemes are as follows:
General views that content has improved
Content has better alignment with rationale/aim of learning area
Content has better alignment with who we want our children to become
The level of emphasis on Indigenous cultures and perspectives is appropriate
Various other LA specific content that has improved or should remain
Content should be added: This theme captures comments which express a desire for further content to be added. The subthemes are as follows:
General views that additional or new content should be added
Additional or new content should be added for better alignment with rationale/aim of learning area
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)
There should be more emphasis on Indigenous cultures and perspectives
Various other LA specific content that should be added
Content should be removed: This theme captures comments which reflect views about content that should be removed from the curriculum. The subthemes are as follows:
General views that there is content that should be removed
Content should be removed it is not aligned with rationale/aim of the learning area
Content should be removed that is not aligned with who we want our children to become (e.g., confident, knowledgeable, skilled)
There is too much emphasis on Indigenous cultures and perspectives

Various other LA specific content that should be removed
Evidenced-based content: This theme captures comments about the extent to which the curriculum is seen as being based on evidence/science. The subthemes are as follows:
The included content appears evidence-based
The included content does not appear to be sufficiently based on evidence and/or needs to be more informed by science/evidence
Inclusive content: This theme captures comments about the extent to which the content is considered appropriate and inclusive for students. The subthemes are as follows:
The curriculum content is inclusive of diverse learners' interests and capabilities
The curriculum content does not adequately accommodate and enable teaching for diverse learners' interests and capabilities.
There are concerns around the age-appropriateness of content
Manageability (amount of content): This theme reflects comments about the extent to which the curriculum is seen as being manageable or cluttered with content. The subthemes are as follows:
Decluttering of content evident, the amount of content is more manageable
Still too much content/further decluttering needed
Sequencing of content: This theme reflects views about the suitability of the developmental progression of content. The subthemes are as follows:
The sequencing of content has improved
The sequencing of content needs further improvement
Achievement standards: This theme reflects views about the suitability of the achievement standards. The subthemes are as follows:
Achievement standards align with content descriptions
Achievement standards need better alignment with content descriptions
Clarity: This overarching theme encompasses the readability and ease of understanding the documentation. The subthemes are as follows:
The overall language of the curriculum is clearer and/or easier to understand
The overall language of the curriculum could use further revision to be clearer and/or easier to understand
The wording of the content descriptions is clearer and/or easier to understand
The wording of the content descriptions could use further revision to be clearer and/or easier to understand
The wording of the achievement standards is clearer and/or easier to understand
The wording of the achievement standards need further clarity
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand
The wording of introductory elements (rationale, aims, key connections) could use further revision to be clearer and/or easier to understand
Implementation (out of scope): This theme captures comments that raise issues around implementation. Whilst these comments are technically out of scope of the terms of reference of the Review, they were considered predominant enough in the responses to be coded. The subthemes are as follows:
Pedagogy - this overarching theme encompasses feedback about how children should be taught
Assessment - this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents.
Support for implementation
Other: Any comments that could not be captured in the themes above, were coded here.

	Sub-themes indicating improvement		Sub-themes indicating further refinements

Appendix D – Groups participating in the survey

Design and Technologies

Group name provided in on-line survey
Australian Council of Engineering Deans
Australian Research Council Centre of Excellence for the Digital Child
Catholic Education Cairns
Design and Technology Teachers' Association Australia
Darling Downs South West - Curriculum Consultation
Darling Downs South West Department of Education
Design and Technology Teachers' Association of Queensland
Home Economics Institute of Australia
Home Economics Institute of Australia (Queensland) Incorporated
Independent Schools Queensland
Primary Industries Education Foundation Australia

Digital Technologies

Group name provided in on-line survey
Australian Council of Engineering Deans
Australian Research Council Centre of Excellence for the Digital Child
Australian Technology Teacher Educators Network
CSIRO Education and Outreach - Digital Careers Program
Catholic Education Cairns
Darling Downs South West Consultation Curriculum
Digital Teaching and Learning Victoria (DLTV)
Family Planning Victoria
ICT Educators NSW
Independent Schools Queensland

Appendix E – Themes from open-ended survey feedback

Table E1: Content that should be removed or revisions needed to make content more manageable, Design and Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Introductory elements	**4**	**3.0%**
The rationale/aims have improved	1	0.8%
The rationale/aims need further improvement	0	0.0%
The strand/sub-strands/core concepts have improved	0	0.0%
The strand/sub-strands/core concepts need further improvement	3	2.3%
The key connections have improved	0	0.0%
The key connections need further improvement	0	0.0%
Content has improved/should remain	**0**	**0.0%**
General views that content has improved	0	0.0%
Content has better alignment with rationale/aim of learning area	0	0.0%
Content has better alignment with who we want our children to become	0	0.0%
The level of emphasis on Indigenous cultures and perspectives is appropriate	0	0.0%
Various other learning area specific content that has improved or should remain	0	0.0%
Content should be added	**10**	**7.5%**
General views that additional or new content should be added	0	0.0%
Additional or new content should be added for better alignment with rationale/aim of learning area	0	0.0%
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)	0	0.0%
There should be more emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be added	10	7.5%
Content should be removed	**20**	**15.0%**
General views that there is content that should be removed	5	3.8%
Content should be removed as it is not aligned with rationale/aim of learning area	0	0.0%
Content should be removed that is not aligned with who we want our children to become	0	0.0%
There is too much emphasis on Indigenous cultures and perspectives	1	0.8%
Various other learning area specific content that should be removed	14	10.5%
Evidence-based content	**2**	**1.5%**
The included content appears evidence-based	0	0.0%
The included content does not appear to be sufficiently based on evidence and/or needs to be more informed by science/evidence	2	1.5%
Inclusive content	**6**	**4.5%**
The curriculum content is inclusive of diverse learners' interests and capabilities.	0	0.0%
The curriculum content does not adequately accommodate and enable teaching for diverse learners' interests and capabilities.	3	2.3%
There are concerns around the age-appropriateness of content	3	2.3%

Manageability (amount of content)	**15**	**11.3%**
Decluttering of content evident, the amount of content is more manageable	0	0.0%
Still too much content/further decluttering needed	15	11.3%
Sequencing of content	**5**	**3.8%**
The sequencing of content has improved	0	0.0%
The sequencing of content needs further improvement	5	3.8%
Achievement standards	**0**	**0.0%**
Achievement standards align with content descriptors	0	0.0%
Achievement standards need better alignment with content descriptors	0	0.0%
Clarity	**13**	**9.8%**
The overall language of the curriculum is clearer and/or easier to understand	0	0.0%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	5	3.8%
The wording of the content descriptions is clearer and/or easier to understand	0	0.0%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	6	4.5%
The wording of the achievement standards is clearer and/or easier to understand	0	0.0%
The wording of the achievement standards need further clarity	5	3.8%
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand	0	0.0%
The wording of introductory elements (rationale, aims, key connections) could use further revision to be clearer and/or easier to understand	0	0.0%
Implementation (out of scope)	**12**	**9.0%**
Pedagogy – this overarching theme encompasses feedback about how children should be taught	0	0.0%
Assessment – this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents	2	1.5%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	10	7.5%
Other	**13**	**9.8%**

Comments were provided by 45 respondents. Percentages are based on all 133 Design and Technologies survey respondents.

Table E2: Aspects that have improved/need further improvement, Design and Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Introductory elements	**12**	**9.0%**
The rationale/aims have improved	5	3.8%
The rationale/aims need further improvement	6	4.5%
The strand/sub-strands/core concepts have improved	5	3.8%
The strand/sub-strands/core concepts need further improvement	6	4.5%
The key connections have improved	3	2.3%
The key connections need further improvement	6	4.5%
Content has improved/should remain	**14**	**10.5%**
General views that content has improved	2	1.5%
Content has better alignment with rationale/aim of learning area	0	0.0%
Content has better alignment with who we want our children to become	0	0.0%
The level of emphasis on Indigenous cultures and perspectives is appropriate	0	0.0%
Various other learning area specific content that has improved or should remain	12	9.0%
Content should be added	**20**	**15.0%**
General views that additional or new content should be added	0	0.0%
Additional or new content should be added for better alignment with rationale/aim of learning area	0	0.0%
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)	5	3.8%
There should be more emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be added	18	13.5%
Content should be removed	**14**	**10.5%**
General views that there is content that should be removed	6	4.5%
Content should be removed as it is not aligned with rationale/aim of learning area	0	0.0%
Content should be removed that is not aligned with who we want our children to become	0	0.0%
There is too much emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be removed	9	6.8%
Evidence-based content	**0**	**0.0%**
The included content appears evidence-based	0	0.0%
The included content does not appear to be sufficiently based on evidence and/or needs to be more informed by science/evidence	0	0.0%
Inclusive content	**13**	**9.8%**
The curriculum content is inclusive of diverse learners' interests and capabilities.	0	0.0%
The curriculum content does not adequately accommodate and enable teaching for diverse learners' interests and capabilities.	7	5.3%
There are concerns around the age-appropriateness of content	6	4.5%
Manageability (amount of content)	**21**	**15.8%**
Decluttering of content evident, the amount of content is more manageable	3	2.3%
Still too much content/further decluttering needed	18	13.5%

Sequencing of content	**0**	**0.0%**
The sequencing of content has improved	0	0.0%
The sequencing of content needs further improvement	0	0.0%
Achievement standards	**4**	**3.0%**
Achievement standards align with content descriptors	1	0.8%
Achievement standards need better alignment with content descriptors	3	2.3%
Clarity	**23**	**17.3%**
The overall language of the curriculum is clearer and/or easier to understand	4	3.0%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	13	9.8%
The wording of the content descriptions is clearer and/or easier to understand	2	1.5%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	1	0.8%
The wording of the achievement standards is clearer and/or easier to understand	5	3.8%
The wording of the achievement standards need further clarity	4	3.0%
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand	0	0.0%
The wording of introductory elements (rationale, aims, key connections) could use further revision to be clearer and/or easier to understand	0	0.0%
Implementation (out of scope)	**5**	**3.8%**
Pedagogy – this overarching theme encompasses feedback about how children should be taught	2	1.5%
Assessment – this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents	0	0.0%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	3	2.3%
Other	**23**	**17.3%**

Comments were provided by 67 respondents. Percentages are based on all 133 Design and Technologies survey respondents.

Table E3: Content that should be removed or revisions needed to make content more manageable, Digital Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Introductory elements	**6**	**5.8%**
The rationale/aims have improved	0	0.0%
The rationale/aims need further improvement	0	0.0%
The strand/sub-strands/core concepts have improved	0	0.0%
The strand/sub-strands/core concepts need further improvement	6	5.8%
The key connections have improved	0	0.0%
The key connections need further improvement	0	0.0%
Content has improved/should remain	**1**	**1.0%**
General views that content has improved	1	1.0%
Content has better alignment with rationale/aim of learning area	0	0.0%
Content has better alignment with who we want our children to become	0	0.0%
The level of emphasis on Indigenous cultures and perspectives is appropriate	0	0.0%
Various other learning area specific content that has improved or should remain	0	0.0%
Content should be added	**2**	**1.9%**
General views that additional or new content should be added	0	0.0%
Additional or new content should be added for better alignment with rationale/aim of learning area	0	0.0%
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)	0	0.0%
There should be more emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be added	2	1.9%
Content should be removed	**13**	**12.5%**
General views that there is content that should be removed	4	3.8%
Content should be removed as it is not aligned with rationale/aim of learning area	0	0.0%
Content should be removed that is not aligned with who we want our children to become	0	0.0%
There is too much emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be removed	9	8.7%
Evidence-based content	**0**	**0.0%**
The included content appears evidence-based	0	0.0%
The included content does not appear to be sufficiently based on evidence and/or needs to be more informed by science/evidence	0	0.0%
Inclusive content	**5**	**4.8%**
The curriculum content is inclusive of diverse learners' interests and capabilities.	0	0.0%
The curriculum content does not adequately accommodate and enable teaching for diverse learners' interests and capabilities.	2	1.9%
There are concerns around the age-appropriateness of content	3	2.9%
Manageability (amount of content)	**13**	**12.5%**
Decluttering of content evident, the amount of content is more manageable	0	0.0%

Still too much content/further decluttering needed	13	12.5%
Sequencing of content	**1**	**1.0%**
The sequencing of content has improved	0	0.0%
The sequencing of content needs further improvement	1	1.0%
Achievement standards	**2**	**1.9%**
Achievement standards align with content descriptors	0	0.0%
Achievement standards need better alignment with content descriptors	2	1.9%
Clarity	**11**	**10.6%**
The overall language of the curriculum is clearer and/or easier to understand	0	0.0%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	4	3.8%
The wording of the content descriptions is clearer and/or easier to understand	0	0.0%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	6	5.8%
The wording of the achievement standards is clearer and/or easier to understand	2	1.9%
The wording of the achievement standards need further clarity	1	1.0%
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand	0	0.0%
The wording of introductory elements (rationale, aims, key connections) could use further revision to be clearer and/or easier to understand	0	0.0%
Implementation (out of scope)	**7**	**6.7%**
Pedagogy – this overarching theme encompasses feedback about how children should be taught	0	0.0%
Assessment – this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents	2	1.9%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	6	5.8%
Other	**11**	**10.6%**

Comments were provided by 37 respondents. Percentages are based on all 104 Digital Technologies survey respondents.

Table E4: Aspects that have improved/need further improvement, Digital Technologies survey respondents

Theme/Subtheme	Number of respondents	Percent of total
Introductory elements	**16**	**15.4%**
The rationale/aims have improved	3	2.9%
The rationale/aims need further improvement	1	1.0%
The strand/sub-strands/core concepts have improved	2	1.9%
The strand/sub-strands/core concepts need further improvement	3	2.9%
The key connections have improved	5	4.8%
The key connections need further improvement	6	5.8%
Content has improved/should remain	**23**	**22.1%**
General views that content has improved	4	3.8%
Content has better alignment with rationale/aim of learning area	0	0.0%
Content has better alignment with who we want our children to become	0	0.0%
The level of emphasis on Indigenous cultures and perspectives is appropriate	0	0.0%
Various other learning area specific content that has improved or should remain	21	20.2%
Content should be added	**9**	**8.7%**
General views that additional or new content should be added	0	0.0%
Additional or new content should be added for better alignment with rationale/aim of learning area	0	0.0%
Additional or new content should be added for better alignment with who we want our children to become (e.g., confident, knowledgeable, skilled)	1	1.0%
There should be more emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be added	8	7.7%
Content should be removed	**9**	**8.7%**
General views that there is content that should be removed	2	1.9%
Content should be removed as it is not aligned with rationale/aim of learning area	0	0.0%
Content should be removed that is not aligned with who we want our children to become	0	0.0%
There is too much emphasis on Indigenous cultures and perspectives	0	0.0%
Various other learning area specific content that should be removed	8	7.7%
Evidence-based content	**1**	**1.0%**
The included content appears evidence-based	0	0.0%
The included content does not appear to be sufficiently based on evidence and/or needs to be more informed by science/evidence	1	1.0%
Inclusive content	**10**	**9.6%**
The curriculum content is inclusive of diverse learners' interests and capabilities.	0	0.0%
The curriculum content does not adequately accommodate and enable teaching for diverse learners' interests and capabilities.	3	2.9%
There are concerns around the age-appropriateness of content	7	6.7%
Manageability (amount of content)	**11**	**10.6%**
Decluttering of content evident, the amount of content is more manageable	2	1.9%
Still too much content/further decluttering needed	10	9.6%

Sequencing of content	**3**	**2.9%**
The sequencing of content has improved	1	1.0%
The sequencing of content needs further improvement	2	1.9%
Achievement standards	**4**	**3.8%**
Achievement standards align with content descriptors	1	1.0%
Achievement standards need better alignment with content descriptors	3	2.9%
Clarity	**29**	**27.9%**
The overall language of the curriculum is clearer and/or easier to understand	8	7.7%
The overall language of the curriculum could use further revision to be clearer and/or easier to understand	13	12.5%
The wording of the content descriptions is clearer and/or easier to understand	11	10.6%
The wording of the content descriptions could use further revision to be clearer and/or easier to understand	6	5.8%
The wording of the achievement standards is clearer and/or easier to understand	4	3.8%
The wording of the achievement standards need further clarity	2	1.9%
The wording of introductory elements (rationale, aims, key connections) is clearer and/or easier to understand	1	1.0%
The wording of introductory elements (rationale, aims, key connections) could use further revision to be clearer and/or easier to understand	0	0.0%
Implementation (out of scope)	**10**	**9.6%**
Pedagogy – this overarching theme encompasses feedback about how children should be taught	2	1.9%
Assessment – this theme encompasses feedback on delivering assessment to students according to achievement standards and curriculum contents	0	0.0%
Support for implementation (e.g., professional development, teacher training, resources such as planning advice and resources, classroom resources)	8	7.7%
Other	**20**	**19.2%**

Comments were provided by 57 respondents. Percentages are based on all 104 Digital Technologies survey respondents.

Appendix F – List of organisations who submitted feedback via email[13]

Organisation Name
Aboriginal and Torres Strait Islander Mathematics Alliance (ATSIMA)
Academy of the Social Sciences in Australia
Act for Kids
ACT Japanese Teachers Network
ACT Principals Association (ACTPA)
Adelaide High School
Adolescent Success
Anglican Church Diocese of Sydney
Art Education Australia
Art Education Victoria
Arts Education Academic Group at the University of Melbourne, Graduate School of Education
Asia Education Teachers' Association
Associated Christian Schools
Ausdance Dance Education Committee
Australasian Fire and Emergency Services Authorities Council
Australasian Institute of Mining and Metallurgy (AusIMM)
Australasian Performing Right Association Limited - Australasian Mechanical Copyright Owners Society (APRA AMCOS)
Australasian Society for Physical Activity (ASPA)
Australia Council for the Arts
Australia's National Research Organisation for Women's Safety
Australia's National Research Organisation for Women's Safety
Australian Academy of Technology and Engineering (ATSE)
Australian Association for Religious Education
Australian Association for Research in Education (AARE) Special Interest Group (SIG) for Health and Physical Education
Australian Association for Teaching of English (AATE)
Australian Association of Christian Schools (AACS)
Australian Business & Community Network
Australian Centre for Career Education
Australian Christian Lobby
Australian Competition & Consumer Commission
Australian Competition and Consumer Commission (ACCC)

[13] This list includes all organisations which self-identified in the email submissions across all learning areas, general capabilities and cross-curriculum priorities.

Organisation Name
Australian Computer Society (ACS)
Australian Council for Educational Leaders
Australian Council for Health, Physical Education and Recreation New South Wales (ACHPER NSW)
Australian Council of Art and Design Schools (ACUADS)
Australian Council of Engineering Deans (ACED)
Australian Council of State School Organisations (ACSSO)
Australian Councils for Computers in Education (ACCE)
Australian Earth Science Education (AusEarthEd)
Australian Education Union
Australian Fedearl Police
Australian Federation of SPELD (Specific Educational Learning Difficulties) Associations (AUSPELD)
Australian Geography Teachers Association (AGTA)
Australian Historical Association (AHA)
Australian Insitute for Progress (AIP)
Australian Institute for Disaster Resilience
Australian Institute of Geoscientists
Australian Institute of Geoscientists
Australian Literacy Educators Association (ALEA)
Australian Mathematical Sciences Institute
Australian Maths Trust
Australian National Flag Association
Australian Network of Government Languages Schools
Australian Parents Council
Australian Professional Teachers Association (APTA)
Australian Psychological Society (APS)
Australian Publishers Association
Australian Science Teachers Association
Australian Society for Music Education New South Wales (ASME)
Australian Society for Music Education Queensland (ASME)
Australian Society for Music Education South Australia (ASME)
Australian Taxation Office
Australian Teachers of Media
Australian Technology Teacher Educators Network (ATTEN)
Australian Tertiary Outdoor Education Network
Be You - Beyond blue
BHP Billiton
Bloom-ED

Organisation Name
Bravehearts
Burwood Presbyerian Church
Business Council of Co-operatives and Mutuals
Business Educators Australasia
Canberra Academy of Languages
Canberra Declaration
Catholic Education Diocese of Parramatta
Catholic Education South Australia (CESA)
Catholic Education, Archdiocese of Canberra and Goulburn
Catholic School Parents Australia
Catholic Women's League Australia
Catholic Women's League Australia-New South Wales Inc
Catholic Women's League Victoria and Wagga Wagga Inc
Christian Democratic Party
Christian Schools Australia (CSA)
Christian SRE (Special Religious Education) NSW
Commissioner for Children and Young People
Cool Australia
Council for the National Interest
Covenant Christian School
Daniel Morcombe Foundation
Democracy Matters
Department for Education South Australia
Department of Education of Tasmania
Design and Technologies Teacher Association (DATTA)
Domestic Violence Resource Centre Victoria (DVRCV)
Domestic Violence Victoria (DV Vic)
Drama Australia
Drama Queensland
Einstein First project
Ending Violence Against Women Queensland (EVAWQ)
Engineers Australia
eSafety
Executive Council of Australian Jewry
Faculty of Education, Monash University
Faculty of Education, University of Tasmania
Family Planning Alliance Australia

Organisation Name
Family Planning Alliance Australia (FPT), Tasmania
Family planning New South Wales
Family Voice Australia
Florey Electorate SA
Gaven State School
Gender Research Network, University of Newcastle
Geography & History Teachers Association NT
Geography Teachers Association NSW and ACT
Geological Society of Australia (GSA)
Geoscience Australia
Geoscience Pathways Project (GPP)
GetUp
Grok Academy
Health and Wellbeing Queensland
Healthy Greater Bendigo
Hindu Council of Australia
History Teachers Association of Victoria
Home Economics Institute of Australia (Queensland) (HEIA)
IncludeHer Movement
Indigenous Eye Health
Indonesian Teachers' Association of South Australia
Information and communication technology (ICT)Educators NSW
Institute for Judaism and Civilization
Institute of Australian Geographers (IAG)
Institute of Public Affairs
Isolated Children's Parents' Association of Australia
It's time we talked
Kodály Queensland
Language Testing Research Centre (LTRC)
Learning By Doing
Lutheran Education Australia
Making Up Lost Time In Literacy Pty Ltd (MultiLit)
Mareeba State School
Mathematics Advisory Board
Mathematics team in the Department of Education of Tasmania
Maths Association of Victoria (MAV)
Maum Meditation Centre Incorporated

Organisation Name
Melbourne Graduate School of Education The University of Melbourne
Melbourne School of Population and Global Health - The University of Melbourne
Menzies Research Centre
Modern Language Teachers' Association of South Australia
Multicultural Education and Languages Committee (MELC)
Multilit
National Advocates for Arts Education (NAAE)
National Alliance of Christian Leaders
National Association of Services against Sexual Violence (NASASV)
New South Wales Council of Churches
Northern Territory's Department of Education
Office of the Victorian Information Commissioner (OVIC)
Office of the Women in STEM Ambassador
OneSchool Global Australia
ORIGO Education
Our Watch
Outdoors New South Wales and Australian Capital Territory
Outdoors Queensland
Physical Literacy Special Interest Group (PL SIG)
Primary Mathematics Association of South Australia (PMA)
Qld Special Education Curriculum Cluster
Queensland Association of Mathematics Teachers
Queensland Association of Special Education Leaders (QASEL)
Queensland Ballet
Queensland Department of Education
Queensland Economic Teachers Association
Queensland Family and Child Commission (QFCC)
Queensland Global Citizenship Education Network (QGCEN)
Queensland History Teachers' Association
Queensland Private Enterprise Centre
Queensland Society for Information Technology in Education (QSITE)
Queensland Society for Information Technology in Education Inc. (QSITE)
Ramsay Centre for Western Civilisation
Reconciliation Australia
Royal Geographical Society of Queensland (RGSQ)
Royal Historical Society of Victoria (RHSV)

Organisation Name
Royal Society of St George
Rule of Law Education
School of Education and Professional Studies, Griffith University
School of Education and Tertiary Access at University of the Sunshine Coast
School of Languages SA
Science & Technology Australia
Science of Language and Reading Lab ((SOLAR Lab)
Science Teachers' Association of Queensland (STAQ)
Social and Citizenship Education Association of Australia (SCEAA)
Social and Citizenship Educators Association of Queensland (SCEAQ)
South Australian English Teachers Association
Speech Pathology Australia
St Clare's College
Steiner Education Australia
Student representative group - Adelaide High School
Suicide Prevention Australia
Tasmanian Art Teachers Association (TATA)
Tasmanian Association for the Gifted
Tasmanian Society for Information Technology in Education (TASITE)
Teach Us Consent
Teacher Earth Science Education Programme (TESEP)
Tertiary History Educators Australia (THEA)
The Arts Education Academic Group at the University of Melbourne
The Arts Education Academic Group at the University of Melbourne, Graduate School of Education
The Australian Association for Adolescent Health
The Centre for Inclusive Education (C4IE)
The eSafety Commissioner
The Hutchins School Tasmania
The Institute of Technology Education (iTE)
The Mareeba State School
The Mathematical Association of Western Australia
The Minerals Council of Australia (MCA)
The Queensland Government’s Department of Tourism
The Queenwood School for Girls
The Tasmanian Association for the Teaching of English (TATE)
The Tasmanian Society for Information Technology in Education (TASITE)
The University of New South Wales Tax Clinic

Organisation Name
True Relationships & Reproductive Health
University of Queensland
University of Tasmania
University of Western Australia
Victorian Commercial Teachers Association (VCTA)
Victory Life Centre
Visual Arts and Design Educators Association New South Wales (VADEA NSW)
Voiceless Limited
Water Services Association of Australia
Wellbeing SA
Western Australia Health Promoting Schools Association.
Western Australian Primary Principals' Association (WAPPA)
Whitlam Institute
Women's Health East
Women's Health Goulburn North East
Young Women's Christian Association of Canberra (YWCA Canberra)

Appendix G – Overview of individual jurisdictional feedback

Tasmania

Positive feedback

- Tasmania's position on the changes to Technologies is positive, with the overall content regarded as improved.
- The addition of a standalone Foundation level is welcomed.
- The reduction of Content Descriptions in F – 6 is welcomed.

Aspects that need further revision and/or consideration include:

- Aspects of the Achievement Standards are too dense.

Queensland

Digital technologies

Positive feedback

- The introductory sections promote the importance of Technologies as a learning area as well as the unique importance of the Digital Technologies subject.
- Content elaborations that provide opportunities to recognise and explore Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority are a positive inclusion.
- The Digital Technologies rationale clearly articulates the importance of the subject.
- Aims are clear, reflect the rationale, and articulate the major learning for students.
- The strands and sub-strands provide a coherent organisational structure.
- The key connections identify relevant general capabilities.
- The key connections section identifies the most relevant cross-curriculum priorities and provides helpful examples of how the cross-curriculum priorities link to both subjects within the learning area.
- The key considerations section provides important information regarding Safety, Privacy and security, and Animal ethics and biosecurity.
- The year/band level descriptions are clearly articulated for Digital Technologies.
- The separation of the Foundation year is a positive update due to its alignment with the Early Years Learning Framework. It has successfully reduced the cognitive load for students.
- The progression of the Years 1 to 6 bands is clear with opportunities to make connections.
- Overall, the learning described in the Digital Technologies Achievement standards aligns with the essential content students should be taught.

Aspects that need further revision

- The amount of content in the Digital Technologies curriculum cannot be covered in each
- year/band. In some instances, the content is less manageable.
- Key connections need to better reflect the scope of learning, and strengthen integration opportunities, examples of which are provided.
- Many content descriptions do not align with the relevant achievement standards.

- Aspects of some content descriptions are not age appropriate.
- New Privacy and security sub-strand may be better placed elsewhere e.g., Digital literacy GC, because it is not essential knowledge.
- Achievement standards need further revision.
- Some Content elaborations appear tokenistic, insensitive and include deficit discourse around Aboriginal peoples and Torres Strait Islander peoples.
- Decluttering is not evident; Technologies has increased in content and 7 – 10 bands are not manageable. The addition of 'user stories' increases the content exponentially. The Acquiring, managing and analysing data sub-strand in Years 7 to 10 contributes significantly to unmanageability. Other examples are given.
- Content elaborations need to be simplified; a high level of technical knowledge is needed. Examples are given.
- Terminology is often confusing. Technical language is not measurable on a 5-point scale.
- The relationship between the Digital Technologies strands and sub-strands in Figure 3 of the consultation curriculum is depicted too simply and does not reflect the importance of the individual sub-strands within the Processes and production skills strand.
- The multiple sets of core concepts complicate the curriculum and makes the organisational structure unnecessarily confusing.
- Coding principles and computer programming fundamentals are not listed in the Digital Technologies strands, sub-strands, or core concepts.
- Key connections need more depth and examples.
- The key connections section does not fully identify the key opportunities to connect Digital Technologies with other learning areas; examples are given.
- Some year/band level descriptions are not accessible or age-appropriate; examples are given.
- Achievement standards for Digital Technologies do not consistently describe the quality of learning students should typically demonstrate by the end of the year/band.
- Digital Technologies Achievement standards do not reflect a clear developmental progression. Suggested improvements are provided.

Design and technologies

Positive feedback

- The revised rationale and aims are clear and improved.
- The emphasis on divergent thinking, agency, and an iterative approach are positive changes.
- In isolation, the different sets of core concepts are well explained.
- The strands and sub-strands provide a clear organisational structure and highlight their importance in the learning area.
- There has been some realignment and refinement.
- Key connections identify relevant general capabilities and CCPs, as well as connections to some other learning areas.
- Year/band level descriptions are clear.
- A separate Foundation level is welcomed.
- Achievement standards have improved language and clarity.

- achievement standards align with the essential content.
- Overall, the content descriptions specify essential knowledge, understanding and skills.
- Grouping technologies contexts in the primary years is a positive revision.
- Some content elaborations provide useful illustrations of learning experiences.

Aspects that need further revision

- Minimal decluttering has occurred; more is needed to achieve manageability, especially in Year 7 – 8. Other examples of how content could be reduced are provided.
- The different core concepts listed for the Technologies learning area and the 2 individual subjects are confusing.
- The wording of some sub-strand descriptions requires refinement.
- Content descriptions across all year/band levels require further refinement
- Some terminology needs more clarity; examples are provided.
- Achievement standards need further improvement.
- Single paragraph structure the clarity.
- Greater alignment with content descriptions is needed.
- Cognitive / developmental progression is not always evident; examples are given.
- Some content elaborations require further revision; examples and suggestions are provided.
- Key connections need to articulate links in greater depth and provide examples. Stronger connections are needed to some learning areas; examples are provided.
- Further refinements to Content elaborations are suggested, with specific examples provided.
- Some content elaborations contain content that is not age appropriate.

Victoria

Design and technologies

Positive feedback

- Content has been removed from F – 2.
- Including a Foundation year is commended.
- Limiting the number of sub-strands in the ‘Creating design solutions’ strands to 3 is welcomed.
- Some aspects of content descriptions have improved; examples are provided.
- There is a more obvious progression of learning across bands.
- Terminology is less ambiguous.
- Splitting the content descriptions for food and fibre production and food specialisations into 2 is supported.
- Alignment of the design processes of Design and technologies and Digital technologies is welcomed.
- The references to Aboriginal and Torres Strait cultures and histories are appropriate.
- Elaborations provide clear examples of how content descriptions can be taught.
- Writing the Achievement standards as one paragraph strengthens the interrelationship of the strands.

- Structure of the Achievement standards has improved and reflects typical design processes.

Aspects that need further revision

- Although the proposed curriculum aims to remove duplication with Science and Art, it should nonetheless provide opportunities to make explicit connections between these learning areas.
- A glossary of terms is needed to support teachers who do not have subject specific training.
- There is concern that Technologies contexts have been re-ordered so that the sub-strands are no longer listed alphabetically but rather link to specific Technologies contexts.
- Some terminology needs more clarity; examples are given.
- The focus on guiding schools to teach particular strands and sub-strands together undervalues the craft of teaching and confuses the role of the curriculum.
- There are concerns about the way that the proposed curriculum combines the technologies contexts at both year-levels 1–2 and year-levels 3–4; reasons and specific examples are provided.

Digital technologies

Positive feedback

- Some aspects of content descriptions have improved; examples are provided.
- Some refinement has occurred.

Aspects that need further revision

- Overall, content for Digital Technologies has increased and there are too many CDs; specific examples are given.
- Some important content has been lost.
- CDs include too much information and are confusing; examples are given.
- Some Content descriptions use terms that are ambiguous and not in common use; examples are given.
- The progression through the content descriptions in some bands is clunky illogical.
- Achievement standards include some unnecessary content; examples are given.
- Elaborations are wordy and difficult to follow.
- Some Content descriptions have too many elaborations and some have too few.
- Some Content descriptions need to be merged and refined.
- The Privacy and security sub-strand is an awkward addition and should instead become part of existing Content descriptions. Illustrations are provided.

New South Wales

Positive feedback

- None provided.

Aspects that need further revision

- There is still content duplication in the Design and Technologies curriculum; examples are given.
- In the Technologies Curriculum, ‘design thinking’ is not as well represented in Digital Technologies as it is in Design and Technologies

South Australia

Intro and Design and technologies

Positive feedback

- The introductory elements are well written, providing clarity and articulating the subject's intent.
- The Rationale and Aims are supported.
- Links to other learning areas are valuable.
- The focus on privacy and security should be embedded across the curriculum.
- Year level descriptions are supported.

Aspects that need further revision

Intercultural understanding needs better foregrounding as an important skill for participation in global contexts.

- Stronger connections are needed to Asia and Australia's Engagement with Asia and to Mathematics.
- Reconsider replacing 'critical' with 'analyse' in the Rationale.
- The verbs and language choice within the achievement standards need to show clearer cognitive progression.
- Additional content at Foundation for evaluation is needed to maximise conceptual understanding.
- The 9 – 10 band could be refined to better prepare students for senior secondary schooling.

Digital technologies

Positive feedback

- Overall, the revised curriculum F-10 is an improvement on its current version for refining, realigning, and decluttering.
- Including computational thinking in the achievement standard is strongly supported.
- The Aims are supported.

Aspects that need further revision

- A new sub-strand that is closely related to the new Digital Literacy has increased the content.
- Some content descriptions need refinement; examples are given.
- Content elaborations related to First Nations cultures need to be culturally respectful and inclusive, including in Key connections. Specific examples are given.
- Some content elaborations need further refinement; specific suggestions are provided.
- Asia and Australia's engagement with Asia should be included in Key connections.
- Some content that has been removed should be reinstated; examples are given.
- The Privacy and security sub-strand F-6 and 7-10 is confusing in its current form and overlaps with the Digital literacy capability. Specific suggestions to refine this sub-strand are provided.
- Rationale needs some refinement; examples are given.
- Some terminology needs to be defined for clarity; examples are given.
- Year level descriptions need to be clearer; examples are given.
- Achievement standards and content descriptions need further alignment; examples are given.

Northern Territory

Positive feedback

- Addition of a new sub-strand to Digital Technologies – considering privacy and security - welcomed. This expands the concepts to include greater emphasis on personalised use for technology.

Aspects that need further revision

- None provided.

Western Australia

Technologies learning area

Positive feedback

- Rationale generally outlines purpose and expectations.
- Aims identify major learning.
- A development progression is evident in the Achievement standards.
- The Privacy and security sub-strand F – 6 is supported.

Aspects that need further revision

- Minimal decluttering has occurred; suggestions are made for further decluttering across the learning area.
- The 2 subjects now have less in common and fewer connections; this creates additional work for teachers. Common language and more alignment is needed between the 2 subjects, especially Process and production sub-strand.
- Rationale could be shorter.
- Aims need to better articulate process and production skills.
- Interrelationships between the 2 subjects could be better highlighted in the organisational structure.
- Core concepts are a confusing extra layer and do not consistently connect to the Content descriptions.
- Key connections need to better foreground connections to GCs, CCPs, and other learning areas.
- Key considerations are not useful for practice.
- Band level descriptions are often not aligned with Content descriptions.
- Expectations for year/band levels are not evident in the Achievement standards.
- Achievement standards are often too high, especially in Design and Technologies.
- An evidence base for the achievement standards is not apparent.
- The Privacy and security sub-strand 7 – 10 should be incorporated into the Digital Literacy GC.
- Some content descriptions that have been removed should be restored. Specific examples are provided across both subjects and all year levels/bands e.g., Digital Technologies F – 6 ‘Acquiring, managing and analysing’ sub-strand.
- Some terminology is too specialised for general primary school teachers.
- Theory has been emphasised at the cost of practical, design-based experiences in both subjects.
- Language is sometimes not developmentally appropriate. Specific examples are given.

- Content elaborations need more refinement to clarify content descriptions, provide examples, and connect to CCPs.

Independent Schools Australia

Technologies learning area

Positive feedback

- Overall, there is a sense that the revised learning area is an improvement.
- Some duplication has been removed.
- Content has been reduced in Foundation year.
- Separate Foundation year content is welcomed.
- Including core concepts, big ideas etc. central to Technologies is endorsed.

Aspects that need further revision

- Simplification is needed; none is evident.
- Content has been added to some primary bands therefore manageability has not improved. Examples are given.
- Not enough play-based activities in the lower years.
- Query around absence of Achievement standards in 9 – 10.

Digital technologies

Positive feedback

- Privacy and security strand is welcomed.
- Retaining key concepts is valued.
- Relevance and links to many Cross-Curriculum Priorities, General Capabilities and other learning areas is endorsed. Examples are given.
- Content Descriptions clearly related to one core concept..
- Privacy and security sub-strand is endorsed.
- Improvements to terminology are noted; examples are given.
- Progression is evident in language choices.

Aspects that need further revision

- Inter-cultural understanding needs to be better foregrounded.
- Binary could be introduced earlier.
- Privacy and security would be better placed in the Digital literacy General Capability.
- Concern around how Privacy and security will be assessed on a 5-point scale.
- Cognitive verbs are not always aligned with developmental progression.
- Design and Technologies F – 10

Positive feedback

- Achievement standards are refined and realigned.
- Links to several other learning areas is endorsed. Examples are given.
- Strands are clearer; examples of specific improvements are given.

- There is greater alignment with senior pathways.

Aspects that need further revision

- Food specialisations (9 – 10) is confusingly worded.

National Catholic Education Commission

Technologies learning area

Positive feedback

- Overall, the revised curriculum is clearer and simpler.
- The Aims are endorsed as clear, reflective of the General capabilities, and principles of inclusivity.
- The organisational structure is clear.
- Foundation is supported as a separate year.
- Achievement standards are clear and improved.
- Language clarity is improved.

Aspects that need further revision

- The curriculum has not been 'decluttered'.
- Time constraints are noted as an implementation issue in relation to the quantum of content.
- Further examples of quality practice embedded into the curriculum are needed, particularly around integration with other learning areas.

Design and technologies

Positive feedback

- The broad scope supports flexibility.
- Knowledge and understanding, and process and production skills are clear.
- There has been content reduction in some areas; examples are given.
- Achievement standard aligns with band descriptors and content descriptions.
- Elaborations provide practical examples.

Aspects that need further revision

- Design and technologies would benefit from being aligned to the mathematics curriculum.
- Language needs further refinement for clarity.
- There are mixed views on splitting food and fibre production and food specialisations for Years 1-6 into 2 content descriptions.
- Suggestions are made for the rewording of some Content descriptions.
- Some Content elaborations should be removed; specific examples are provided.

Digital technologies

Positive feedback

- The revised curriculum is clearer and simpler and most changes are positively received.
- Key connections identify the most relevant cross-curriculum priorities, general capabilities and learning area integration.

- Most year/band descriptions provide a clear overview of the learning that students should experience.
- A separate Foundation year is welcomed.
- Play based focus in Foundation is welcomed.
- Achievement standards are improved and refined, and align with Content descriptions.

Aspects that need further revision

- F – 10 content still needs to be refined to be manageable; content appears to have substantially increased.
- Design thinking should be included in the Aims. A specific suggestion is provided.
- Strands should be given equal weighting in the organisational structure. An alternative diagram is provided.
- More concrete examples of connections with other subjects are needed in F – 6.
- Some capabilities and learning areas should not be included in the Key connections; examples are given.
- Copyright laws and intellectual property should be included in Key considerations.
- Some band/year level descriptions are wordy and inaccessible.
- Some concern that achievement standards demonstrate ‘what’ rather than ‘how well’.
- A glossary of terms is recommended; examples are given.
- Recommendations are made for moving some content to other bands/years; examples are given.
- Content elaborations need to provide more authentic examples. Specific examples are given.

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