Government of **Western Australia**
Department of **Education**

Ms Janine Freeman MLA
Chair
Education and Health Standing Committee
Legislative Assembly of Western Australia

Email: laehsc@parliament.wa.gov.au

Dear Ms Freeman

Thank you for your letter dated 19 June 2019 following the hearing on 12 June 2019 on Digital Technology in Education.

Please find attached the transcript from officers who gave evidence, which contains minor amendments.

Also attached are responses to the nine questions raised.

Yours sincerely

Lisa Rodgers
Director General
1 2 JUL 2019

EDUCATION AND HEALTH STANDING COMMITTEE

HEARING INTO DIGITAL TECHNOLOGY IN EDUCATION

Please provide the Department of Education's response for the Committee on the following:

1. *An outline of the professional development support for digital technology which the Department provides teachers (see page 9 of transcript)*

The Department of Education has a number of initiatives that provide professional learning support for digital technologies in Western Australian public schools.

Teachers Can Code: The Teachers Can Code (TCC) professional learning program is a Department initiative that supports the implementation of the Western Australian Curriculum: Digital Technologies. This program develops teachers' capacity to integrate Digital Technologies, including coding, into teaching and learning programs. The program consists of 16 modules, which are being delivered state-wide by 110 lead teachers to local and regional networks, using face-to-face and online delivery. As at 20 June 2019, lead teachers had delivered more than 356 TCC workshops to over 4 863 participants.

Teacher Development Schools: Teacher Development Schools (TDS) are schools with expertise in digital technologies and Science, Technology, Engineering and Mathematics (STEM) that provide support for the teaching and learning of STEM subjects. The TDS initiative provides teachers with opportunities to learn directly from the successful, evidence-based practices of other teachers. This support comprises a range of professional learning opportunities, including workshops, classroom observation and mentoring, as well as sharing advice and resources through online professional learning communities. Schools and networks may also request tailored support that meet individual school needs from a TDS. For 2018–2019, 26 TDS were selected on the basis of their expertise to support teachers in digital technologies and STEM subjects across a wide range of contexts.

DigiTech Schools: In 2018–2019, seven of the TDS are recognised as DigiTech Schools. These schools provide professional support to teachers and schools specifically to implement the Western Australian Curriculum: Digital Technologies. This support includes workshops, classroom observation and mentoring, as well as providing advice and sharing resources. DigiTech Schools also deliver Teachers Can Code Professional Learning Modules by request.

Innovation Partnership Schools: The Innovation Partnership Schools program brings together clusters of schools, along with industry and community partners, to explore professional practices that increase student engagement and achievement in digital technologies and STEM. Currently, 68 schools are involved in the program.

The STEM Learning Project: The Department has engaged the services of Scitech to develop high-quality Kindergarten to Year 12 STEM teaching and learning resources and teacher professional learning. These aim to build the capacity of teachers to implement exemplary STEM practices, including the teaching and learning of the Western Australian Curriculum: Digital Technologies and the General Capabilities: ICT capability. A total of 32 of the projected 38 curriculum resource

modules have been received by the Department for review. Since June 2016, over 3 400 teachers and school leaders have participated in 115 professional learning events.

STEM Enterprise Schools: The STEM Enterprise Schools initiative is a component of the State STEM Skills Strategy. For 2019–2021, this project supports the delivery of STEM professional learning and mentoring to public schools with a mid to low Index of Community Socio-Educational Advantage (ICSEA).

The STEM Enterprise Schools program consists of:
- a STEM Professional Learning Program that supports identified public schools to implement whole-school approaches to STEM education and builds capacity in digital technologies and STEM education practices; and
- the STEM Mentoring program, in which evidence-informed digital technologies and STEM teaching and learning practices are shared with and between low ICSEA schools to improve participation and student achievement in STEM subjects.

Connect communities for digital technologies and STEM: Through online Connect communities, teachers and school leaders access teacher-developed resources and share effective teaching and learning strategies and professional learning opportunities.

Connect communities providing support for digital technologies and STEM:

Community	*Members at 1 July 2019
K-6 Technologies Curriculum	741
Secondary Digital Technologies Curriculum	728
Secondary Science Network	1 324
Secondary Mathematics Teachers' Network	1 073
STEM Enterprise Schools	243
STEM Innovation Partnerships	312
STEM Network	616
Teachers Can Code Lead Teachers	146
Western Australian Curriculum: Mathematics (K-7) Network	2 315
Western Australian Curriculum: Science (K-7) Network	960

*Some teachers may be members of more than one community

2. *Information about schools that are leading the way in supporting digital technology in their schools (such as Vasse Primary School) (see page 10 of transcript)*

List of DigiTech Schools by region.

DigiTech School with regions	Specific practices
Bunbury Primary School (Southwest)	Embedding digital technologies across the curriculum, planning documents, iPads in classrooms, Microsoft in education, Teachers Can Code professional learning.
Cecil Andrews College (South Metro)	FIRST Robotics Programs, P-TECH school, working with remote schools to embed digital technologies, Teachers Can Code professional learning.
Hampton Senior High School (North Metro)	Specialist ICT program, Tech Fest, NASA Tours, supporting primary schools to implement digital technologies across Western Australia, Teachers Can Code professional learning.
Harrisdale Primary School (South Metro)	Project-based learning, Apple distinguished educator, integrating iPads in schools, Teachers Can Code professional learning.
Merredin College (Wheatbelt)	Using virtual reality to increase student engagement and empowering other regional schools to integrate ICT and digital technologies across the curriculum, Teachers Can Code professional learning.
Treendale Primary School (Southwest)	BYO iPad program, Apple Distinguished school, showcasing the use of iPads in education, student technical problem solvers, Teachers Can Code professional learning.
Vasse Primary School (Southwest)	STEM cell workshops, Google Classrooms, ICT tutorials, filmmaking, flexible virtual and physical learning environments that develop 21st Century skills, using social media to share promising practices globally, Teachers Can Code professional learning.

3. *Information about specific digital technology tools to assist students with learning difficulties or disabilities (see pages 15-16 of transcript)*

E-Schooling: E-Schooling provides professional learning support for:
- Microsoft Office 365 – tools that provide accessibility options such as an Immersive Reader for students with visual impairments, a translator for English as an Additional Language/ Dialect students and a captioning service for students with hearing impairments.
- Connect Classrooms – provide differentiated learning opportunities and multimodal delivery to cater for different student learning styles.
- Cyber Safety – to inform teachers about safe online learning environments for students.

School of Special Educational Needs: Sensory (SSEN:S)

SSEN:S provides state-wide support to children aged 0 – 4 years and school students in Kindergarten to Years 12-13 with hearing loss and/or visual impairments in both public and non-government schools. SSEN:S supports engagement with digital technologies through the following initiatives and relationships:

- SSEN:S Vision Education Program Visiting Teachers liaise with school-based staff regarding student engagement with digital technologies and STEM to recommend teaching and learning adjustments for students with vision impairment. SSEN:S maintains digital technologies resource kits that engage children during group programs such as Peer Engagement and the Early Childhood Service.
- SSEN:S engages with regional and remote school-based staff and students to deliver lessons via the WebEx online platform. WebEx lesson delivery complements in-situ service visits and maintains continuity of learning opportunities.
    - Regions currently supported by complementary in-situ visiting teacher services and remote WebEx lesson delivery are the Goldfields, Kimberley, Midwest and Pilbara.
    - SSEN:S, in partnership with Catholic Education Western Australia (CEWA), is trialling an initiative to support both public and non-government school students with sensory loss in regional, rural and remote locations via the CEWA Virtual School Network Program. This initiative uses the Microsoft Teams product. Regions currently engaging in the initiative include the Kimberley, MidWest and Wheatbelt.

The School of Special Educational Needs: Disability (SSEN:D)

SSEN:D provides identified students with a specific learning disability with laptops with pre-installed software. In addition, SSEN:D facilitates professional learning for teachers in the use of:

- Literacy – WordQ 5, WordShark 5, Co-Writer, Clicker, Snaptype Pro;
- Numeracy – NumberShark 5;
- iPads – inbuilt universal design aspects and accessibility options such as screen readers, predictive text and reading view;
- ATAR Pathway – C-Pens scanners and readers;
- Communication – Pragmatic Organisation Dynamic Display books, eye-gaze, speech devices with switching systems; and
- Microsoft Office 365 – Accessibility features to personalise learning options for students.

4. A copy of the draft ICT Vision Statement, to be treated as closed evidence, or if that is not possible an outline of the key guiding principles of the statement (see page 16 of transcript).

Answer: This has not yet been discussed with the Minister for Education and therefore cannot be provided at this time.

5. With regard to the ICT Vision Statement:
 a) Is there a timeframe for its implementation?
 b) What measures will be in place to monitor its success?
 c) Will the Department monitor the progress and performance of schools against the statement, and, if so, how will this be done?

Answer:

a) – c) This has not yet been discussed with the Minister for Education and therefore cannot be provided at this time.

6. Does the Department have a process to identify schools that require more ICT support? If not, does it intend to introduce a process? What would it entail and when would it be in place?

Answer: The Department regards all of its schools as both part of a collective system and as individual schools, with a level of independence in regard to delivery to their local community. This means that the needs and demands of ICT vary across schools and can change over time.

Schools can choose to access a range of supports including:
- the ICT service desk, which provides support to all schools, and has a small experienced team that handles more complex tasks and provides relevant advice;
- an enterprise-wide agreement with Apple to extend direct support for Apple devices (iPads etc) to all schools and users; and
- a range of fundamental training initiatives in core ICT platforms, such as its standard operating environment (SOE), the use of iPads in the standard environment etc. These popular sessions are run on a regular basis and are open to all schools. The training courses are also now a mandatory requirement for third-party integrators who are members of the integrators panel. Schools can engage these integrators for support and this mandatory training helps ensure they appreciate the school ICT environment. This allows them to provide better support to any of the schools that contract them.

The Department also constantly seeks to improve its service delivery, providing enhanced opportunities for self-service through the intranet (Ikon), the ICT Dashboard, and other tools. These are under constant development to provide greater support to all schools.

7. The Department said in its response to the Public Accounts Committee (dated 19 June 2018) that the computer census data for 2018 would be completed by term 3, 2018 and then made publicly available. Has this occurred?

Answer: Yes.

8. Has Shenton College now migrated to the SOE as planned, and when will the four remaining schools migrate?

Answer: Shenton College migrated to the SOE as planned.

Planning is advanced at Mindarie Senior College, with site and equipment surveys completed. The current expectation is for the migration to commence in early November 2019, once Year 11 students are finished.

Planning for Woodvale Secondary College migration to SOE is just commencing, with site and equipment surveys expected to commence in mid-July 2019. Current expectations are that migration will commence in December 2019.

Discussions with Churchlands Senior High School and Ballajura Community College regarding migration to SOE are continuing.

9. What was the outcome of the 2016 independent review of ICT at two large secondary schools (confirmed during the hearing as Willetton and Churchlands) which examined the effectiveness of the SOE against an entirely self-managed system?

Answer: The review highlighted a number of differences between the two schools based on the version of the SOE in place at that time. Over the intervening three years, the SOE has evolved and improved.

One of the key differences that the 2016 independent review highlighted was cost, which identified that the entirely self-managed option was significantly more expensive than the SOE model.