

Submission by Dr Laurel Scanlan, A Head Start Children Centre, and Child Essential Learning Systems (CELS).

Our objective is to have the commission fully investigate the cost effectiveness and efficiency of Child Essential Learning Systems (CELS) technology to aid the delivery of high quality outcomes for children 0 to 8 years.

Reasons why online technology should be investigated by the Productivity Commission;

- The efficiencies of this online technology facilitates key decisions to be made to improve early education and care outcomes based on aggregate data that is current, accurate, reliable and instantly accessible. Hence decisions involving public expenditure can be used for grater benefit

NOTE: See excerpts from the report titled “Performance Reporting Systems in Education” by the Victorian Auditor-Generals Office tabled 18th September 2013 in Appendix 1

- This technology allows ECEC information to be monitored continuously to highlight what is working and to reveal trends that equip all stakeholders at all levels, including governments, to make informed decisions
- Access to this online system anytime and anywhere can ensure continuity of training and practice and the integration of support services nation wide including unifying and connecting the Australian and State Governments, Universities and vocational training institutions (RTO's) and ECEC services to promote high quality teaching and increase workforce capacity and productivity
- This proven online technology is easy to use and reliable and can unify professional learning that prepares and enhances pre-service teachers' and educators' competencies and expertise over the course of their study, and this can seamlessly continue when they enter the workforce
- Transitions; all information about each child's development and learning outcomes is continuously accumulating and instantly available when and where it is needed securely and with privacy e.g. at risk children, support agencies and when transitioning through early education and care and school
- Accuracy; data is of high quality and trusted because the stakeholders creating and monitoring the data can instantly identify errors and quickly resolve these.
- CELS has the National Quality Standard including the EYLF, and the Australian Curriculum inserted.

NOTE: Please refer to Appendix 2 for more in-depth information about the benefits of Child Essential Learning Systems (CELS) for teachers/educators, families, administrators, management and governments.

History of Child Essential Learning Systems (CELS)

- Child Essential Learning Systems (CELS) is unique patented software that received a COMET Grant (Project No.2009-127) from the Department of Innovation, Industry, Science and Research in 2009. Innovation patent 2012100860 and Innovation patent 2010101352.
- CELS paperless software has been used exclusively by A Head Start Children's Centre, Currumbin, Qld since January 2008 and A Head Start Children's Centre, Burleigh Heads, Qld

since opening in April 2009 to record and monitor the continuous pedagogical documentation and progress of each child's learning and development.

- A Head Start Children's Centre, Currumbin which provides education and care for children 0 to 5 years has 6 years of continuous learning and developmental data completed online for each child (some who have attended for over 4 years). This data includes programs and an array of observations that have been recorded and assessed using the Early Years Learning Framework (EYLF). All stakeholders have been able to easily access and monitor each child's learning progress anytime online and this data can seamlessly transition onto school with the child.
- CELS online was examined under the National Childcare Accreditation Council (NCAC) accreditation process twice since January 2008, first at A Head Start Children's Centre, Currumbin, Queensland, in 2009 and second at A Head Start Children's Centre, Burleigh Heads, Qld in 2010. Both centres received a high quality rating for all seven quality areas.
- CELS online has also been through the new National Quality Standard (NQS) assessment process introduced by Australian Children's Education and Care Quality Authority (ACECQA), specifically:
 - August, 28th 2012 A Head Start Children's Centre, Currumbin, Qld submitted their Quality Improvement Plan online to the Office of Early Childhood Education and Care (OECEC)
 - October, 24th 2012 A Head Start Children's Centre, Currumbin, Qld was assessed against the National Quality Standard (NQS) and was awarded "Exceeding national quality standard" for all seven (7) Quality Areas and also met all 58 Elements of the NQS. Refer to Service Approval Number: QSA-801610 and Assessment and ratings ID: 12/252137.

How CELS online technology relates to specific terms of reference in this Productivity Commission issues paper.

We would welcome the opportunity to demonstrate how researchers and authorities can quickly obtain current and accurate information from the data that continuously accumulates in CELS online. This data can assist in finding solutions to the selected **Terms of Reference** and **Scope of Enquiry** shown below.

Terms of reference

The child care and early learning system can be improved because:

- a small but significant number of children start school with learning and developmental delays
- there are shortfalls in reaching and properly supporting the needs of children with disabilities and vulnerable children, regional and rural families and parents who are moving from income support into study and employment
- services need to operate in a system that has clear and sustainable business arrangements, including regulation, planning and funding
- there is a need to ensure that public expenditure on child care and early childhood learning is both efficient and effective in addressing the needs of families and children.
- addresses children's learning and development needs, including the transition to schooling.

Scope of the inquiry

In undertaking this Inquiry, the Productivity Commission should use evidence from Australia and overseas to report on and make recommendations about the following:

The contribution that access to affordable, high quality child care can make to:

- 1) (b) optimising children's learning and development.

The current and future need for child care in Australia, including consideration of the following:

- 2) (i) the capacity of the existing child care system to ensure children are transitioning from child care to school with a satisfactory level of school preparedness
- 2) (j) opportunities to improve connections and transitions across early childhood services (including between child care and preschool/kindergarten services)
- 2) (k) the needs of vulnerable or at risk children
- 2) (l) interactions with relevant Australian Government policies and programmes.
- 5) The benefits and other impacts of regulatory changes in child care over the past decade, including the implementation of the National Quality Framework (NQF) in States and Territories, with specific consideration given to compliance costs, taking into account the Government's planned work with States and Territories to streamline the NQF.

1 Demand for and expectations of child care and early learning services

Children's development needs

The Commission is seeking evidence on the effect of the different types of ECEC, including separate preschool programs, on children's learning and development and preparedness for school.

4 Government regulation of childcare and early learning

Workforce issues and the effects of the National Quality Framework

The Commission is seeking views and evidence on:

- *the effect of increased staff ratios and qualification requirements on outcomes for children*
- *the case for greater recognition and assessment of competencies as an alternative in some cases to additional formal training and qualifications*

The Commission is seeking information on:

- *the extent to which training/childcare courses enable workers to meet the requirements of the NQF and how training could be improved*

Could the information provided on the 'My Child' website be changed to make it more useful or accessible to families? Are there other approaches to providing information to parents about vacancies, fees and compliance that should be considered?

Options for regulatory reform

How could the NQF and other regulations affecting ECEC be improved — both requirements and their implementation/enforcement — to be more effective and/or to reduce the compliance burden on ECEC services or workers and/or administration costs for governments?

Are there lower cost ways to achieve the regulatory objectives for ECEC?

Are there areas currently regulated that would be better left to sector self-regulatory codes of practice or accreditation schemes?

APPENDICES

Appendix 1: PERFORMANCE REPORTING SYSTEMS IN EDUCATION

Report by the Victorian Auditor-Generals Office tabled on the 18th September 2013

Title of report “Performance Reporting Systems in Education”

Excerpts below from this recent study of the Department of Education and Early Childhood Development (DEECD) Victoria, highlights the need for more efficient and effective performance reporting systems in early education.

Unique student identifier

DEECD begins providing services to the community at the moment of birth—initially through MCH care. It continues to provide services throughout people's lives through kindergarten, school and post-compulsory education. These distinct areas of service have, at varying times, been the responsibilities of different government departments. They were brought together under DEECD to reflect their integrated nature and the prevailing belief that foundations laid in the earliest years of life impact on an individual's performance at school, further education and beyond. It also reflects the growing belief that identifying and intervening to address underperformance in the early years is more effective than interventions made later in life.

Given this, it is particularly important for DEECD to understand the impact of its activities from a holistic perspective, as well as a sector by sector or program by program point of view. Linking and analysing information between the different sectors contributes to this understanding, however, tracking individuals' progress over time is equally important. Doing so would allow the department to identify the long-term impacts of early learning and early intervention programs and target resources accordingly.

While lots of information is gathered it is not always the most useful information and is not always easy to discover and use.

We reviewed nine separate performance audits of DEECD from the past three years and found a recurrence of information management related issues, including:

- inconsistent data collection methods and controls that have led to the reliability of some data being compromised
- lack of information transfer between the early childhood and school sectors
- lack of access to, or use of, important data in a range of different areas.

As a result of these repeated issues, DEECD and those who deliver services on its behalf cannot effectively:

- evaluate programs, determine resourcing requirements and develop policy
- undertake longitudinal studies based on robust and complete student data
- identify and target resources towards the most vulnerable children in their critical transitions from early childhood into school
- determine if program funding has been well spent and provides value for money.

Appendix 2: Benefits of Child Essential Learning Systems (CELS)

Benefits of CELS Online: For all participants in the education and care workforce

- Easy to use paperless technology where comprehensive pedagogical documentation and learning outcomes for children is quickly and effectively recorded and monitored and available anytime online.
- No need for teachers and educators to take work home as excellent pedagogical documentation can be completed within normal working hours, thus, saving time and avoiding stress
- Eliminates the paper trail and pressures associated with NQS quality compliance as all parts of the quality improvement plan is completed with ease and the quick monitoring reports ensure the highest quality rating for all NQS elements can be easily monitored and maintained by all participants.
- Easy online submission of an NQS Quality Improvement Plan to the OECEC for any rating period.
- A powerful search engine to instantly locate specific data
- Time saving and efficient technology that eliminates stress and burnout in the workplace
- High workplace satisfaction, morale and retention of personnel
- Extraordinary collaboration, enthusiasm, mentoring and extension of knowledge
- Fosters purposeful and intentional teaching by giving time scarce teachers/educators more time to engage and interact with the children because of the speed teachers/educators can:
 - Create a group daily slide show of learning experiences children engage in throughout the day
 - Accurately record with ease any type of observation for groups and individuals (with photographs and narrative) and make judgements about children's learning and development in relation to, for example, the EYLF outcomes or any other curriculum.
 - Create program plans immediately a need is identified to scaffold learning because the strengths and needs of each child are instantly visible in reports including the 'group master record' and child's personal record
 - Quick access to monitoring tools, reports and learning graphs to check that each child's learning and development is progressive, supports their strengths and needs, and ensures no area of learning is overlooked to prevent any child from falling through the net, including those with special needs
- Collaborative sharing of ideas and strategies to extend children's thinking and learning aided by instant online access to all previously recorded program plans and learning experiences for groups.
- The speed at which lesser qualified educators develop greater understanding of early childhood teaching and documentation of children's learning because experienced educators can guide them to complete group daily diaries and observations in real work time with ease and show how to access the numerous 'real' examples that accumulate indefinitely in CELS online.
- No interruption to children's learning when transitioning to the next age group because each child's continuum of learning and developmental phase is instantly available online through monitoring reports and graphs.
- Internal memos, web links to external resource sites and professional development opportunities can be added to the staff portal for instant access anytime
- Health professionals and community support services can, with permission, access online the E-Portfolio of observations and program plans of children with developmental delay or special needs to monitor their progress and provide feedback and support for teachers and families.
- Easy for educators to provide online to tertiary institutions proof of competency to gain credits for recognition of prior learning (RPL)

Benefits of CELS Online: For families and children in ECEC services

- CELS 'Parents' portal provides safe online transparency for families about every aspect of their child's learning progress through viewing anywhere and at anytime:
 - (a) Their child's E-Portfolio of observations and individual program plans that allow families to follow their children's learning progress for each learning area and sub-area of the curriculum (the EYLF) while attending the service.
 - (b) The group daily diary slide show of learning experiences children have engaged in or to review past daily diaries in the home environment
 - (c) A comprehensive learning progress report which can be viewed anytime or when a child is transitioning onto school
 - (d) Information for families including news, policies, the family handbook, family participation calendar
 - (e) Policies currently under review and providing feedback
 - (f) Parenting information e.g. web links to health services, ACECQA

- (g) The NQS Continuing improvement plan
- (h) DVD of each child's E-Portfolio that contains all observations (photographic with narrative) and program plans for the entire time of attendance (sometimes 4 years or more for services offering education and care for children aged 0 to 5 years. Families report that children really enjoy revisiting photographs on their DVD that show them as babies and each stage of their growth until preschool graduation.
- Families become less apprehensive about their children's learning because it is easy to follow their children's progressive pedagogical documentation of learning as they pass through each age group anytime online.
- The transparency CELS provides to families significantly reduces the number of interviews families seek with the Director and educators and in turn reduces the costs of employing staff to cover interview times.
- Reinforce and extend children's learning at home through families revisiting group daily diaries that present daily learning experiences and then pursuing these interests at home or in the ECEC service
- Fosters more family participation in their children's learning because they are more informed about how children learn and how learning can be extended through their family involvement
- There is more relaxed communication between educators and families about all aspects of children's learning because of the online transparency CELS provides anytime and anywhere, for example, viewing group daily diaries and a child's E-Portfolio of pedagogical observations and programs
- Members of families who often work away from home and grandparents who live in other towns or countries really enjoy being able to log on and see what their child or grandchild has been doing at kindy

Benefits of CELS Online: For administration and management of ECEC services

- Quick online access anytime and anywhere to all information recorded in CELS for one or multiple services operating under the same entity, for example, authorised persons can instantly access group master records and graphs that display all pedagogical documentation and learning outcomes for a selected group and individual children in that group for service and also quickly switch between services.
- Has a powerful search engine to quickly locate specific data, for example, all observations relating to gross motor development for a particular date range or age group to use for professional development
- Provide a continuum or timeline of learning and development for each child for the entire time they attend an ECEC service and this information is saved to a DVD and presented to families when they leave.
- Easily to create specific reports and graphs for groups and individual children from information stored in the CELS database, for example, a graph to check that each child's learning and development outcomes show continued improvement for each sub-area of the EYLF as he or she progresses through each age group and that programs have been completed to scaffold learning if a need is identified.
- CELS has a unique NQS monitoring and reporting system that minimises supervisors' time, stress and the paper trail associated with ensuring all elements of the NQS are performed to the highest standard for the designated rating period.
- The NQS monitoring and reporting system makes it easy for supervisors and educators;
 - To observe and record the service's practices for each NQS element and self-rate quality against ACECQA's 5 point rating system which automatically update to the "Quality Monitoring Report"
 - To quickly access the "Quality Monitoring Report" and instantly create a continuing improvement plan for NQS elements that have lower than expected quality ratings and these automatically accumulate in the "Continuing Improvement Plans" report
 - To instantly create a continuing improvement plan for an identified issue relating to an NQS Element with objectives, strategies and timeframe for completion and the ability to evaluate the plans effectiveness on lifting quality, create a follow-up program if required and finally reflect on the effectiveness of the program.
 - To instantly attach any number of observations of excellent practice to an NQS element as proof of continued high quality practice, for example, observations relating to sustainability practices which automatically accumulate in the "Quality Strengths Report" when tagged.
 - Submit online the Quality Improvement Plan including the Quality Strengths report and Continuing Improvement Plan to the OECEC with a secure username and password for access.
- The group master record and each child's individual record allows supervisors to quickly and effectively monitor the quality of educators' teaching practices and pedagogical documentation of children's learning and development and provide instant feedback and guidance where improvement is required.

- Monitor the programming master record that instantly displays group and individual programs created for children and instantly flags;
 - Programs that have not been evaluated and if a follow-up program is needed to meet a learning objective
 - Programs that have not been reflected upon for a group and individual children for any date range
- Can provide helpful online feedback to teachers about particular practices to drive continuous improvement
- Perform instant online cross checks on each child's learning outcomes history to identify or flag areas where a child may be at risk or have developmental delay issues to prevent them slipping through the net.
- Give online access to health professionals, community support services to monitor and provide support for educators and families of children with developmental delay or with special needs in any ECEC service in any location with the parents permission
- Builds respectful and caring relationships between the services personnel, children and families and the service because of the transparency CELS provides for all stakeholders.
- Provides valuable longitudinal data for researching and health and support services

Benefits of CELS Online: For Governments, and tertiary and vocational training institutions

- Is proven cloud technology that is secure, easy to install, and to operate and manage
- Has a powerful search engine to quickly locate specific reports and data for research
- Creates a more qualified, motivated and productive early childhood workforce.
- Provides continuous and unified education and assessment systems using any curriculum framework and content for children 0 to 12 years and beyond, for example the EYLF and Australian Curriculum
- Can connect the Australian and State Governments, Universities and vocational training institutions, and ECEC services to promote integrated high quality teaching to increase workforce capacity and productivity.
- Reduce costs and increase efficiencies for regulatory authorities because monitoring compliance of the NQF and NQS quality assessment of ECEC services can be viewed online anytime through the CELS NQS reports including the Quality master record, Quality Strengths report and Continuing Improvement Plans.
- Supports the early childhood workforce, especially in the context of the National Quality Standard and the Early Years Learning Framework.
- Fosters professional learning that prepares and enhances pre-service teachers' and educators' competencies and expertise over the course of their study and can seamlessly continue when they enter the workforce.
- Is a connected process that is flexible, time saving and effective, and thus reduces stress and burnout in the workplace
- Promotes high workplace satisfaction, morale and retention of personnel
- Develops outstanding collaboration, confidence, enthusiasm and extension of knowledge
- Ability to implement online continuous and ongoing improvement to curriculum and teaching practices
- Online access to every child's comprehensive continuum of learning and development in ECEC services and could align this information with the Australian Early Development Index (AEDI).
- Easy for governments, community and ECEC services to create specific reports and graphs from up to the minute information stored indefinitely in CELS database
- Provides information for longitudinal studies of the effectiveness of government policy
- Provides online access to more learning resources and 'real' experiences for training institutions
- Offers online professional support, development and leadership to early childhood teachers and carers in regional, rural and remote communities
- Connected online channels of communication between universities, pre-service teachers and ECEC services
- Online access for health professionals, community support services and training institutions can provide instant online support for teachers and carers of special needs children or students working in isolated locations.
- Provides online NQS quality monitoring reports and support for teachers/educators and management of ECEC services to achieve the highest rating for the National Quality Standard and to provide ongoing feedback for continual improvement.
- Provides valuable data to help communities and Governments pin point the types of services and support that young children and families need.