ACCE response to AITSL (Australian Institute for Teaching and School Leadership) consultation on the national system for preservice teacher education program accreditation (September 2010) Background

The Australian Council for Computers in Education (ACCE) is the national professional body for those involved in the use of information and communications technology in education. It consists of representatives from the state and territory computer education groups and the Australian Computer Society. It is affiliated with the International Society for Technology Education (ISTE) and the Technology Education Federation of Australia (TEFA). Herein is the ACCE's response to the AITSL's call for consultation on the national system for pre-service teacher education program accreditation. We have offered a response to two of the three components of the system: the Graduate Teacher Standards, and the Accreditation Process. This response concludes with a statement regarding future directions of accreditation of teachers in ICT pedagogy.

While the integration of information and communication technology (ICT) has been embedded in teacher education since the mid-1980s with examples of excellence in various institutions/courses, national reports led by ACCE, namely, *Making Better Connections* (Downes et al., 2001), *Raising the St*andards (MCEETYA, 2003), and *Partnerships in ICT for Learning* (Pegg et al., 2007) have highlighted the inconsistency of outcomes for graduates and areas for improvement in teacher education. Meanwhile, international ICTE standards (e.g. ISTE, 2008; UNESCO 2008) have drawn attention to the need for a similarly consistent national approach in the Australian context to enable change (Lim, Chai & Churchill, 2009). To this end, the Australian Council for Computers in Education (ACCE) welcomes the opportunity to provide comment on the consultative draft of pre-service teacher accreditation standards in regard to the achievement and promotion of ICT pedagogical skills amongst pre-service graduates.

Graduate teacher standards

The proposed national graduate standards make specific reference to ICT in three instances. ACCE believes that these would provide the consistent national approach identified as being needed in the Australian context (Lim et al., 2009) to enable curriculum change and would further support the role of ICT as a general capability in the Australian curriculum. However, we provide the following discussion to provide further detail and to inform further development on the standards.

1. Standard 2 [Know the content and how to teach it], specifically Standard 2.6, Information and Communication Technologies (ICTs) which reads *know pedagogical strategies for using ICTs to expand curriculum learning opportunities for students.*

Standard 2.6 with its emphasis on pedagogy sits well with current research, particularly in and around understandings of TPACK (technological pedagogical content knowledge) (Girod, Bell & Mishra, 2007; Koehler & Mishra, 200; Mishra & Koehler, 2006). The TPACK model requires teaching and learning about ICT integration to be embedded in curriculum

methods and professional studies components of a teacher education program, and building capacity in teacher educators to embed ICT perspectives in their daily work. This standard also aligns with international ICT in Education standards (e.g. UNESCO, 2008; ISTE, 2008) which focus on pedagogy and the development of technologically rich learning environments as opposed to a narrow focus on rapidly obsolescent skill sets.

2. Standard 3 [Plan for and implement effective teaching and learning], specifically Standard 3.4 which reads *use resources, including ICTs to engage students in their learning.*

Standard 3.4 with its reference to ICT to engage students is founded in research (Chen & McGrath, 2003) and in common practice. So as not to seemingly minimise the potential impact of ICT on student learning, AITSL might also consider including the use of ICT into Standard 3.3, that is, *relating to problem solving and critical and creative thinking.* While established research refers to ICT as 'mindtools' which can be used to amplify thinking (e.g., Jonassen, 2000; Jonassen, Carr, & Yueh, 1998; Kirschner & Wopereis, 2003), another highlights the effectiveness of online communication tools such as blogs (web logs) as collaborative spaces to support students' reflection on resources and content (e.g., Lefoe & Meyers, 2006).

ICT can also make a significant contribution to Standard 3.6 and could usefully be included explicitly in the wording of the standard.

3. Standard 4 [Create and maintain supportive and safe learning environments], specifically Standard 4.5 which reads *demonstrate understanding of the safe*, *responsible and ethical use of ICTs in teaching and learning, including strategies to address cyber-bullying.*

Standard 4.5 is well-founded and situates teachers' traditional duty of care into online environments. Brown (2005), for example, pointed to contemporary teachers' difficulty in keeping up to date with computer 'crime,' including plagiarism, and called for heightened awareness amongst teachers and pre-service teachers. Such awareness could be encompassed by the notion of 'digital citizenship' and also include understandings of copyright and intellectual property. While Standard 4.5 in its current form might serve to redress this lack of attention to an area of growing community concern, the specific reference to cyber-bullying is the only one of its type in the standards document and consideration should be given to its being removed and/or added to as one of a list of examples or being placed within the more generic 'safety' standard, Standard 4.4.

Further comments on the standards

We would also request attention be given to the following:

- The preamble, headed Graduate Teachers (p. 10) does not include a reference to ICT and we would recommend that the third sentence of paragraph 2 be amended to read, "They have a well developed understanding of key strategies *and technologies* to promote student learning and are able to select from them to meet the learning needs of their students." This encompasses mainstream classrooms but also distance learning (virtual schooling) and also the adaptive technologies used to enhance learning for students with special needs.
- Standard 6, *Professional Engagement*, does not refer to informal professional learning or the generative learning available through online communities of practice, e.g., the

email lists and discussion forums hosted by authorities such as Education Services Australia, professional associations and relevant groups. Such a reference may be included in Standard 6.3 as an example.

The standards use the acronym ICTs, which while used in some states in Australia, is
more commonly seen both nationally and internationally as ICT. Some educational
systems in Australia have recently adopted the acronym ICLT with the 'L' standing for
learning. It would be expected that ICT as an acronym would pose little difficulty for
these systems.

Accreditation Process

Involvement in Accreditation Panels

ACCE is very willing to assist in course accreditation and advice to teacher education institutions (TEIs), through its member organisations in each state and territory.

Mentoring of teachers supervising new graduates

ACCE may be able to assist with potential mentors for teachers supervising new graduates teachers in the use of ICT, as a part of the nationally recognised training referred to in the consultation document.

Future directions

ACCE feels that consideration could be given to accreditation of ICT competency at a national level. This could be undertaken by ACCE through its local member organisations (similar to, for example, the model currently in operation in Education Queensland which has embedded connection to pre-service courses in that state).

Note

ACCE notes, although not in the gambit of its interests, that little information is given to the costing of the standards implementation and wonders if this is to be born by the profession or by the relevant jurisdiction, or rightfully, by AITSL funding?

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References

- Brown, D. (2005). Technology and Ethics: Teachers playing Catch-up with their Students. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2005* (pp. 3095-3100). Chesapeake, VA: AACE.
- Chen, P. & McGrath, D. (2003). Moments of Joy: Student Engagement and Conceptual Learning in the Design of Hypermedia Documents. *Journal of Research on Technology in Education. 35*(3), 402-422.
- Downes, T., Fluck, A., Gibbons, P., Leonard, R., Matthews, C., Oliver, R., Vickers, M. & Williams, M. (2001). *Making better connections: Models of teacher professional development for the integration of information and communication technology into classroom practice.* Canberra, Australia: Commonwealth Department of Education, Science and Training.
- Girod, M., Bell, J., & Mishra, P. (2007). Using digital video to re-think teaching practices. *Journal* of Computing in Teaching Education, 24(1), 15-21.
- ISTE (2008). National Educational Technology Standards (NETS•T) and Performance Indicators for Teachers. . Retrieved Sept 1, 2010, from http://www.iste.org/Content/NavigationMenu/NETS/ForTeachers/2008Standards/NETS_T_St andards Final.pdf
- Jonassen, D.H. (2000). Critical thinking: The goal of mindtools. *Computers as mindtools for schools: Engaging critical thinking (2nd Ed.).* Columbus, OH: Prentice-Hall.
- Jonassen, D.H., Carr, C. & Yueh, H.P. (1998). Computers as mindtools for engaging learners in critical thinking. *Tech Trends*, *43*(2), pp. 24-32.
- Kirschner, P., & Wopereis, I. (2003). Mindtools for teacher communities: A European perspective. *Technology, Pedagogy and Education, 12*(1), 105-124.
- Koehler, M.J. & Mishra, P., (2009). What is technological pedagogical content knowledge. *Contemporary Issues in Technology and Teacher Education, 9*(1), pp 60-70.
- Lefoe, G., & Meyers, W. (2006). *Modelling blended learning environments: Designing an academic development blog.* Paper presented at the 2006 ASCILITE Conference. Retrieved July 28, 2010, from http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1049&context=asdpapers
- Lim, C.P., Chai, C.S. & Churchill, D. (2010). *Leading ICT in education practices: A capacity-building toolkit for teacher education institutions in the Asia-Pacific.* Singapore: Fabulous Printers. Retrieved June 7, 2010, from

http://edithcowan.academia.edu/documents/0078/8257/TEI_Toolkit_final.pdf

- MCEETYA (Ministerial Council on Education, Employment, Training and Youth Affairs). (2002). *Raising the Standards: A proposal for the development of an information and communication technology (ICT) competency framework for teachers.* Retrieved June 7, 2010, from http://www.dest.gov.au/sectors/school_education/publications_resources/profiles/raising_s tandards_ict_competency_framework.htm
- Mishra, P. & Koehler, M.J., (2006). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. *Teachers college Record 108*, 6, pp 1017-1054.
- Pegg, J., Reading, C., & Williams, M. (2007). *Partnerships in ICT learning study: Full report*. Canberra, Australia: Department of Science and Training.
- UNESCO. (2008). *ICT competency standards for teachers: Competency standards modules*. Retrieved June 7, 2010, from http://cst.unesco-ci.org/sites/projects/cst/default.aspx