NfLandITE

From WikiEducator

Contents

- 1 The Network for Learning and Initial Teacher Education in New Zealand
 - 1.1 Initial Teacher Education and ICT
 - 1.1.1 How then can ITE programmes partner well with schools to prepare the next generation of teachers if they are not given full access to the NfL?
 - 1.2 Recommendations
 - 1.3 Feedback please
 - 1.4 References
 - 1.5 Feedback, edits and Comments
 - 1.5.1 Davis' CINZS column published in December 2012
 - 1.5.2 Review by the Tertiary eLearning Reference Group in December 2012
 - 1.5.3 April 2013 Government responds on Digital Literacy

The Network for Learning and Initial Teacher Education in New Zealand

Both edits and feedback are welcome and invited.

You can do this by logging into WikiEducator (registration free) and choosing to Edit this and other sections.

Please add your name and affiliation below before adding your feedback and edits. This version is available on http://wikieducator.org/NfLandITE

This paper aims to guide implementation and development of education in New Zealand with the Network for Learning (N4L) and Ultrafast Broadband in Schools (UFBiS) with particular reference to teacher preparation. Many educators will be unable to access the nation's Network for Learning unless action is taken to ensure the coherence of policy so that relevant educators in the tertiary sector can engage in the schooling sector where relevant to their work. This is particularly critical for initial teacher education. This paper is seeking comment and/or support for three recommendations:

- 1. The services of the Network for Learning N4L Crown Entity be adjusted to cover all those who work in the schooling sector. This could be done by Ministry of Education through the joint Memorandum of Understanding so that existing funding is linked to access to the services of the Network for Learning is enabled for student teachers and tertiary staff working with initial teacher education. (Note: This would not include any subsidy for bandwidth services because they are only relevant for school premises).
- 2. A national hui be urgently convened to better understand and start to disseminate the contributions and needs of initial teacher education, including services such as nationwide ePortfolio services that are already deployed for schools and professional learning development (PLD) in the schooling sector.

3. The government's billion dollar investment in UFB be leveraged by gathering relevant illustrations of best practices plus related research and development to inform the national strategy and all relevant educational agencies and institutions. Best practice includes PLD provided by student teachers and curriculum innovations with digital technologies that reach schools and communities through ITE, including blended online learning across initial teacher education and some partner schools.

Background

This paper has been drafted at the request of the NfL Governance Board in October 2012 by a member of that board (Niki Davis, University of Canterbury Professor of e-Learning). A later version was also be discussed by the Tertiary e-Learning Reference Group convened by the Ministry of Education and Ako Aotearoa in December 2012. A shorter paper forewarned both the UFBiS/N4L Governance Board and the Tertiary e-Learning Reference Group a year earlier (Davis 2011).

The key facts for schools Network for Learning (http://elearning.tki.org.nz/) circulated by the Ministry of Education at ULearn conferences and elsewhere state that "Technology is becoming increasingly integral to educational delivery. Recognising this, the Government has prioritised schools in its national roll out of ultra-fast broadband." The visions of NfL/ UFBiS Governance Board members continue to see that educational opportunities will depend on engaging teachers to facilitate students, colleagues and whanau to make increasing use of digital technologies. Those visions continue to inform the work of the Governance Board in 2012 when it was renamed NfL Governance Board and include learning with, about, and through ICT with the development of sophisticated literacy skills, including networked communication. A challenge recognised at the May 2011 meeting of the Governance Board was that teachers could not be involved in the UFBiS professional development initiatives until they became recognised as practicing teachers associated with the school in which they are employed. Thus each year the hundreds of teachers who join schools will need significant professional development from the first day, unless initial teacher education programmes are enabled to respond to the ICTrelated changes that are already underway in New Zealand's schooling sector. In addition, significant challenges are also emerging for teachers who are not permanent staff, particularly relievers. Although this paper focuses on initial teacher education, many of the points are relevant to the increasing percentage of educators without permanent contracts (currently 35% of the teaching force) and other educators who support schooling in New Zealand.

During 2012 the Ministry of Education commissioned two papers that are intended to be bold and to form the basis of discussion and consultation on the professional preparation of teachers for schools in New Zealand, which are relevant but delayed a response to the challenges identified a year ago (Davis, 2011). These papers are currently being released to programmes across New Zealand for comment:

- Aitken, G., Sinnema, C., & Meyer, F. (2012). Initial Teacher Education Outcomes: Graduate Teacher Standards Background Paper. Auckland: The University of Auckland.
- Timperly, H. (2012): Learning to Practise. Draft Paper for Discussion and Consultation. Auckland: The University of Auckland.

Together they present a world leading view of initial teacher education that "could begin to transform the profession... To put this view into practice, a great deal of further unpacking about what it means in practice and the development of new models will be required. This process will require commitment and energy from all involved in the interests of addressing the issues of equity and quality outlined in the Ministry of Education's introduction to these papers." (Timperly 2012) These papers also provide an excellent and timely overview for

this outline of additional strategies that are necessary to accompany the nationwide implementation of Ultrafast Broadband for the economic benefits foreseen by the Government's multibillion dollar investment.

Initial Teacher Education and ICT

In her thought provoking discussion of research into the challenges of learning to teach, Helen Timperly tabulated the shifts that a novice starting an ITE programme must make in order to become teacher who is an adaptive expert ready to undertake the mission foreseen for teachers by the current Government for New Zealand schools. In addition to a shift of "focus on self to a focus on students", a shift "from simplicity to complexity" is also necessary. That shift includes a shift of perspective on the "location of learning":

- From "Learning happens primarily in the classrooms. Other environments, such as home, get children ready for schooling."
- To "Learning draws on information from multiple environments, including digital. "Schooling" involves developing educationally powerful connections across them that assume the importance of an integrated approach to learning within and beyond classroom walls." (Timperley 2012: 10)

The location for learning includes digital environments such as the Network for Learning. In the final principle 5 "Situate learning in carefully constructed learning communities", Timperley notes: "Given the importance of the social context in shaping what is learned, it is essential that a broader view than schools is taken of what constitutes relevant communities when learning to teach. Not all learning happens in school or a university. Indeed many suggest that most learning happens outside of formal institutions including the digital environment, and so the very idea of experiences related to learning to practice should have a wider reach."

Timperley also notes that social networking technologies are an increasingly powerful medium for educators and related professional development. The New Zealand Teachers Council launched a campaign in October 2012 to help teachers to "get the best out of social media" clearly recognising ethical challenges as well as benefits (http://www.teachersandsocialmedia.co.nz/). The NfL will develop more such resources as well as providing a place for student work.

How then can ITE programmes partner well with schools to prepare the next generation of teachers if they are not given full access to the NfL?

Although initial teacher education (ITE) programmes prepare teachers for New Zealand schools, the schooling division of the Ministry of Education currently appears unable to provide any support because ITE falls within the remit of only the tertiary sector. In reality, initial teacher education engages in both sectors and lack of coherence in national policy is likely to retard developments. John Goodlad recognised this when he spoke of the need for 'simultaneous renewal' of teacher education and school education, stating "one cannot change without the other". Similar challenges in the UK and USA have been recognised and the targeted initiatives started in England (project INTENT), USA (Preparing Tomorrow's Teachers to use Technology, PT3) and other countries (e.g. Enlaces). However, New Zealand has not funded a national initiative to support such 'simultaneous renewal' with information and communication technologies (ICT). Niki Davis' entry on technology in preservice teacher education in the most recent International Encyclopaedia of Education (2010) describes the three main goals of embedding ICT in teacher education as follows: "(1) preparing teachers to use ICTs in educationally effective ways; (2) preparing K-12 teachers to teach ICT related content; and (3) applying ICTs to serve teacher education. In essence technology is a cross-curricular theme, a content area, and a tool that can be applied to learning and teaching, which includes the use of telecommunications to improve access to education." (Davis, 2010: 217)

The complex challenges of school renewal and teacher educator professional development are intensified in teacher education. Many teacher education programmes work synergistically with school partners so that student

teachers can bring new knowledge and skills into their classrooms and schools, which results in significant curriculum and professional development within partner schools and that is a major theme within the two consultation papers (Timperly 2012; Aitken et al. 2012). Thus innovative initial teacher education programmes can impact schools through simultaneous renewal but it will never be easy, as briefly outlined in the same encyclopaedia entry: "This final section reviews four issues in technology and teacher education: faculty and organizational development and related national initiatives, equitable access to technology and teacher education, and the challenge of researching this field. Faculty and organizational development have been and will remain a major challenge worldwide because technology and education continue to evolve. ICTs are best viewed as clusters of innovation that are adopted and/or rejected by individuals and organizations in stages. For example, as described earlier, best practice in the preparation of preservice teachers to use an interactive whiteboard in a high school classroom includes adoption of new hardware, software, and procedures in the preservice program by faculty with the support of staff and administrators, along with similar adoption in the school where preservice teachers practice. Goodlad (1994) described the link between the development of colleges and K-12 schools as simultaneous renewal to emphasize that one could not come before the other; both must develop together. The adoption of each cluster of innovation takes place in stages and the speed of adoption is related to the concerns of each organization and individual with related development of TCPK and resources (Davis, 2008). In the eclectic range of strategies used to promote effective practice with technology in preservice teacher education, technology mentoring is one of the most successful strategies because it takes individual faculty concerns as a starting point and provides one-on-one support from a student who also gains knowledge of educational practice (Thompson et al., 2007)." (Davis 2010: 220)

In New Zealand, institutional, faculty, programme and course development of initial teacher education is currently the responsibility of individual institutions. Therefore it is useful to note that initial teacher education is funded through student fees, plus the SAC distributed by the Tertiary Education Commission, and that teacher education numbers currently sit within the capping of student numbers in tertiary education. No special provision is made for teacher education.

Current Graduating Teacher Standards set and monitored by the New Zealand Teachers Council (NZTC) are "about ensuring that teacher graduates are of a consistent quality" and their web site informs us that: "The standards were developed in response to a call from the teaching profession for more certainty in the quality of all graduates from all initial teacher education programmes. The teaching profession has the right and responsibility to determine who will enter and remain in the profession."

The New Zealand Teachers Council developed the standards in cooperation with, and with the support of, a wide range of representatives from the education community.

(http://www.teacherscouncil.govt.nz/te/gts/index.stm) Within the standards ICT is specifically mentioned once as follows:

"Professional Practice

Standard Four: Graduating Teachers use professional knowledge to plan for a safe, high quality teaching and learning environment

(d). demonstrate proficiency in oral and written language Maori and/or English), in numeracy and in ICT relevant to their professional role."

Initial teacher education programmes are regularly reviewed by NZTC. The panel who undertook a review of the University of Canterbury degree programme that prepares primary teachers originally indentified a lack of willingness to engage with online components that are carefully blended into this programme (see Hunt et al. 2011). Therefore material was printed off and lost some of its functionality. However, the programme's many innovations with digital technologies were commended after the teacher educators, including the author, had explained the blend of online resources and learning processes, offerings on campus and in the regions, interviews preceding enrolment, and a range of experience in partnership with schools. This suggests that a coherent strategy for the preparation of new teachers would best include the agencies that work with teacher education as well as the institutions that provide such programmes.

A particularly challenging activity is that of preparing for and taking part in school experience and practice teaching, during which beginning teachers need access to school infrastructure and encouragement from cooperating school teachers and administrators. Exemplary use of My Portfolio for schools is one example that benefits both sectors. Such partnerships between programmes and schools could be enhanced or blocked by the NfL (e.g. Mackey et al.'s description of the resilience of the award winning ITE programme that prepares primary teachers for schools in New Zealand).

There has been no review of the practice with ICT in initial teacher education programmes in New Zealand for around ten years (Keryn Pratt produced a review about a decade ago). Over the last decade there has been a range of development with the application of ICT, such as blended online learning in the University of Canterbury (Hunt et al, 2011), blended learning in Massey University ITE programme (Kehrwald et al. 2011; Simpson 2008) and twitter in a University of Waikato programme (Wright, 2010). As noted above there has been no national initiative in this area.

International reviews are not easily transferable to this bi-cultural nation with its strong commitment to maintaining education in rural areas, including the Virtual Learning Network and e-learning clusters of rural schools (Ministry of Education, 2011). In the introduction to the *Learning Communities Online Handbook* the Ministry recognized that: "We live in an age of 'collabetition', where the traditional view of schools as being in competition with one another must be balanced against the considerable benefits of collaboration and supporting each others' work. Commitment to being a part of a LCO is one way of achieving this." (See http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/Initiatives/LearningCommunitiesOnline.aspx (http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/Initiatives/LearningCommunitiesOnline.aspx)

It is import to recognise that initial teacher education is part of the complex partnerships that make up 'collabetition' in New Zealand's schooling sector today and into the future. Therefore, the production of a nationwide view is urgently required as well as strategic action.

Recommendations

This paper is seeking comment and/or support for three recommendations:

- 1. The services of the UfB Crown Entity be adjusted to cover all those who work in the schooling sector. This could be done by Ministry of Education through the joint Memorandum of Understanding so that existing funding is linked to access to the services of the Network for Learning is enabled for student teachers and tertiary staff working with initial teacher education. (Note: This would not include any subsidy for bandwidth services because they are only relevant for school premises).
- 2. A national hui be urgently convened to better understand and start to disseminate the contributions and needs of initial teacher education, including services such as nationwide ePortfolio services that are already deployed for schools and professional learning development (PLD) in the schooling sector.
- 3. The government's billion dollar investment in UFB be leveraged by gathering relevant illustrations of best practices plus related research and development to inform the national strategy and all relevant educational agencies and institutions. Best practice includes PLD provided by student teachers and curriculum innovations with digital technologies that reach schools and communities through ITE, including blended online learning across initial teacher education and some partner schools.

In addition, there were two previous recommendations from Davis' 2011 paper for UFBiS Board that remain outstanding:

1. Raise awareness of the urgent need to:

- a. Commission research to provide a nationwide view of development required to ensure that initial teacher education prepares teachers for schools connected to UFB, and also identifies the ways ITE programmes do and/or could support the school sector to develop and disseminate best practices.
- b. Include in this research the development of professional experiences so that some newly qualified teachers are prepared to teach through technology and/or mentor students who are learning with support from teachers at a distance.
- 2. Bring UFBiS/NfL related changes to the attention of other bodies who are also likely to need to update their work and increase professional development in order to respond to changes in the school sector: Ministry of Education Workforce Advisory Group (suggested by Frances Kelly, Group Manager, Schooling Policy); NZTC; NZ Council of Deans of Education; CUAP; TEC and others.

Feedback please

Please send your feedback to Niki Davis: Niki Davis@Canterbury.ac.nz

Niki Davis

25 October 2012, University of Canterbury e-Learning Lab This paper is also available here in WikiEducator at http://wikieducator.org/NfLandITE

References

Aitken, G., Sinnema, C., & Meyer, F. (2012). Initial Teacher Education Outcomes: Graduate Teacher Standards - Background Paper. Auckland: The University of Auckland.

Davis, N.E. (2010). Technology in preservice teacher education. In P. Peterson, E. Baker, B. McGaw (Ed.), International Encyclopedia of Education, Vol. 8. (3rd ed.) (217-221). Oxford: Elsevier.

Goodlad, J. (1994). Educational renewal: Better teachers, better schools. San Francisco, CA: Jossy-Bass. Hunt, A-M., Mackey, J., Dabner, N., Morrow, D., Breeze, D., Walker, L. and Davis, N.E. (2011). Culturally sensitive blended learning for future teachers in challenging times. Distance Education Association of New Zealand (DEANZ) Magazine, May 2011, 1-4. Retrieved October 25, 2011 from

http://www.deanz.org.nz/home/index.php/deanz-magazine

MacKey, J., Breeze, D., Buckley-Foster, P., Dabner, N. and Gilmore, F. (2011) Innovate to survive: Being prepared to teach in times of crisis. (54-63) In J. Macket et all Proceedigns of ULearn Research Stream 2011, retrieved October 25, 2012 from http://ulearn.core-ed.org/ulearn-research-stream-proceedings Ministry of Education (2011). Learning Communities Online handbook. Retrieved October 25, 2011 from http://www.vln.school.nz/pg/groups/2644/lco-handbook/

Kehrwald, B., Rawlins, P., & Simpson, M. (2011). Learner experiences of online learning in a blended learning situation: Different cohorts, different needs. In G. Williams, P. Statham, N. Brown & B. Cleland (Eds.), Proceedings of the Australasian Society for Computers in Learning in Tertiary Education (ascilite) Conference: Changing Demands, Changing Directions, (pp. 671-676). Hobart, Australia: University of Tasmania. Retrieved

from http://www.ascilite.org.au/conferences/hobart11/downloads/ProceedingsV3.pdf

Simpson, M. (2008). Attempting to realise the potential of blended learning: An initial teacher education case study. In Hello! Where are you in the landscape of educational technology? Proceedings ascilite Melbourne 2008. Retrieved October 25, 2011 from http://www.ascilite.org.au/conferences/melbourne08/procs/simpson.pdf Timperly, H. (2012): Learning to Practise. Draft Paper for Discussion and Consultation. Auckland: The University of Auckland.

Wright, N. (2010). Twittering in teacher education: reflecting on practicum experiences. Open Learning, 25(3), 259-265.

Feedback, edits and Comments

This is a draft document and both edits and feedback are welcome and invited.

You can do this by logging into WikiEducator (registration free) and choosing to Edit this and other sections.

Please add your name and affiliation below before adding your feedback and edits.

Davis' CINZS column published in December 2012 (http://education2x.otago.ac.nz/cinzs/mod/resource/view.php?id=411)

Professor Niki Davis, University of Canterbury e-Learning Lab (http://www.education.canterbury.ac.nz/research_labs/e_learning/researchers.shtml)

"... Initial teacher education: an emergent section of the N4L?

The blended learning project with Cantanet and Westnet is only one of many examples where teachers and their schools are generating and networking to improve learning in ways that can and should work with the N4L. There are also activities in initial teacher education that provide significant resources and networking activity that should benefit and accelerate the growth of the N4L and its impact. Mackey et al (2012) presented an overview of those activities recently to the ASCILITE conference in Wellington, using the University of Canterbury's award winning primary programme as an illustration. Within this ITE degree the formal induction to the Moodle-based LMS and Mahara MyPortfolio that then blend into the programme for hundreds of future teachers each year so that they engage with relevant technologies within their professional learning. Mackey et al. continue, "In conjunction with these strategies, there has been a purposeful focus on how to integrate the appropriate use of current technologies and e-learning into all courses. For example, staff have been encouraged and supported through organised professional development, teaching showcase events, and one-to-one mentoring to:

· model blended e-learning pedagogies using the LMS, AdobeConnect, interactive whiteboards, and e-portfolios for students studying in three modes (campus, regional campuses and distance);

- embrace Web 2.0 tools for collaborative work, class activities and assignments;
- integrate appropriate digital content from relevant sources (e.g. Te Kete Ipurangi, DigiStore);
- adopt e-assessment strategies using the LMS and/or e-portfolios;
- establish virtual connections with teachers, schools, subject associations and national and international educational leaders;
- develop learning networks that include experts from related industry and real-world contexts.

There are many examples of innovative e-learning including the use of Adobe Connect to support interactive workshops for campus and distance students; Web 2.0 tools such as Voice Thread by students to record and provide feedback on multimedia assignments; college i-Pads and personal 'bring your own devices' (BYOD) for curriculum activities; existing as well as staff and student-created video; and teaching in a specially-designed collaborative e-learning lab where up to 80 students can work in groups of three around shared computers as well as using their own devices. Worthy of special mention is the widespread use of Mahara MyPortfolio (schools version) which provides valuable connections between ITE staff and students, and the wider schooling sector

through the associated online community and special interest groups, and builds understanding of the value of eportfolios for personal and professional learning."

In common with the earlier examples, the thorough embedding of ICT develops skills and knowledge in partnership with schools that provide opportunities for professional practice nationwide. At times, these future teachers, in collaboration with cooperating teachers and university supervisors, model new practices and they often bring new online resources into schools. The same is true for other programmes including the use of MyPortfolio by the University of Auckland and Twitter in the University of Waikato (Wright 2010).

I trust that readers will therefore support the case for those involved in initial teacher education to be encouraged to actively participate in the N4L with our colleagues and their students in schools. After all, to limit access would reduce the preparation of newly qualified teachers for schooling today and block development. For that reason I have developed a discussion paper (see http://wikieducator.org/NfLandITE) and sought and received support from key agencies including the Tertiary eLearning Reference Group, TEFANZ, the VLNC Council, and DEANZ, the national association for open flexible and distance learning representing all sectors of education and training.

Drawing on relevant research and current discussion papers on teacher quality (Aitken et al., 2012; Timperley, 2012), my paper starts with three recommendations:

The services of the Network for Learning N4L Ltd. be adjusted to cover all those who work in the schooling sector. (Note: This would not include any subsidy for bandwidth services because that is only relevant for school premises).

A national hui be urgently convened to better understand and start to disseminate the contributions and needs of initial teacher education, including services such as nationwide ePortfolio services that are already deployed for schools and professional learning development (PLD) in the schooling sector.

The government's billion dollar investment in UFB be leveraged by gathering relevant illustrations of best practices plus related research and development to inform the national strategy and all relevant educational agencies and institutions. Best practice includes PLD provided by student teachers and curriculum innovations with digital technologies that reach schools and communities through ITE, including blended online learning across initial teacher education and some partner schools."

Review by the Tertiary eLearning Reference Group in December 2012

The following was drafted for the minutes:

"3. UFB, DEANZ 2016 scenarios project and PBRF panel updates

Niki [Davis] gave members a brief update on the DEANZ 2016 scenarios project. It was noted that recent developments including the OERu foreshadowed the broad scenarios outlined in the DEANZ project. Two resources (which will soon be available at the Ako Aotearoa website) have been created to assist organisational leaders and programme managers to support their planning of future organisational and programme development.

Niki informed members that the Network for Learning (the content repository to support the roll-out of ultrafast broadband to schools) is scheduled for completion in July 2013. Its key strands include virtual learning, networks, curriculum resources and professional learning opportunities. Further information is available on this here - http://www.n4l.co.nz/ and here - http://elearning.tki.org.nz/Ministry-initiatives/Network-for-Learning2. This TKI site also provides access to research. Most schools will have access to this network and ultrafast broadband by

2016. It will be supported by a recently established crown entity also called the Network for Learning.

According to Niki the Network for Learning has strong Ministerial support. However to be more effective it needs to be accessible and utilised more widely than just the schooling sector e.g. the wider community, whānau and the early childhood sector. It also has a strong focus on infrastructure and access rather than effective use.

One of the key intersections between the tertiary and schooling sectors is the STAR programme (for further details refer to - http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/Initiatives/STAR.aspx). The Network for Learning provides an opportunity for tertiary providers to increase their marketing of STAR opportunities to schools and students. Outreach programmes could also be supported by the Network for Learning.

It is critical that tertiary providers can access the Network for Learning particularly those involved in initial teacher education. Niki noted that a clearer picture of national provision of initial teacher education would be useful in informing their requirements for the Network for Learning. A paper on this subject is available - http://wikieducator.org/NfLandITE and members were invited to review and contribute to this. Tertiary provider access to the Network for Learning could be achieved via the crown entity's Memorandum of Understanding.

One area where the Network for Learning could make a significant contribution is student transitions to the tertiary sector. For example it could be utilised to provide more effective preparation and support for students entering university programmes. It could also be used to encourage and support students who have low achievement or are disengaged to participate for longer at school or enter tertiary education.

Roger [Smith, Ministry of Education and co-chair of TeLRG with Peter Coolbear of Ako Aotearoa] noted that agencies were unable (for legislative and other reasons) to determine provider operational matters including access to the Network for Learning. However the Ministry could consider how it might support its transitions related work programmes.

It was noted that organisations who have extensive and long-standing legacy correspondence systems often find the transition to virtual learning more challenging than their counterparts with non-existent or immature legacy systems.

The absence of appropriate infrastructure means that virtual learning in rural and remote communities is also difficult. More easily accessible content will contribute to a more personalised learning experience. Peer mentoring and learner generated content are also critical in this context and this applies equally to early childhood, schooling and tertiary.

Members were asked to raise awareness of the Network for Learning via their organisational, professional association/peak body and other appropriate and relevant constituencies. It is important the key messages are tailored for particular audiences. Any feedback gained from this can be fed into the paper above or direct to Niki.

Identifying audiences beyond member networks was also critical. To look specifically at initial teacher education a dedicated workshop could be held. It was noted that any Network for Learning related initiatives need to align or support wider organisational ones or they may not be sustainable.

• Members will raise awareness of the Network for Learning programme with their networks and use any feedback to inform Niki's paper."

• • •

"Associate Education Minister Nikki Kaye today tabled the Government's undertaking to deliver on its commitment to digital literacy in education. ..." But no mention made as yet of the challenges to initial teacher education in the announcement or the linked Q&A. See http://beehive.govt.nz/release/government-responds-digital-literacy

Retrieved from "http://wikieducator.org/NfLandITE"

- This page was last modified on 23 July 2013, at 07:39.
- This page has been accessed 488 times.
- Content is available under Creative Commons Attribution Share-Alike License.
- Privacy policy
- About WikiEducator
- Disclaimers