

Education for the 21st Century

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LABOUR'S PLAN: WE'LL PUT PEOPLE FIRST

Labour will ensure that schools are able to equip our kids for the future and that every child, no matter what their background, can benefit from a 21st century education.

HIGHLIGHTS



Labour will:

put in place a programme that provides an affordable option, available to all schools, for Year 5-13 students to have access to a portable digital device, in the classroom and at home.

commit \$25 million to provide teachers with professional development during the 2016 and 2017 school years to assist them to make the most effective use of digital devices in the classroom.

partner with schools, local government and communities to put in place infrastructure that will allow students, particularly those from low-decile schools, who do not currently have internet connections to use their portable devices to access the internet at home.

develop a comprehensive plan for rebuilding out-dated and worn-out school buildings, so that every school has access to modern learning environments by 2030.

THE ISSUE



New Zealand's public education system is amongst the best in the developed world. But maintaining that standard requires a willingness to innovate and invest to keep pace with changing needs and new challenges.

Labour has always been at the forefront of driving positive change in our education system, and we are reaching another turning point. The modernisation of schools in other nations means they are starting to outpace us, and there are signs that our educational outcomes are starting to worsen. We cannot stand by and allow this to happen.

Labour will grasp this challenge. We will stop the drift, and end the obsession with endless measurement and finger-pointing in favour of positive change.

Portable digital devices for school students

Increasingly schools are turning to technology to assist student learning. The 2012 school information and communications technology (ICT) infrastructure survey indicated that a quarter of schools were implementing a 'bring your own device' (BYOD) programme, or intended to do so within the next 12 months. The government's 21st Century Learning Reference Group predicts that by 2017 all children and young people will use personal digital devices for their learning.¹

Assisting parents to buy a portable digital device



Labour will:

put in place a programme that provides an affordable option, available to all schools, for Year 5-13 students to have access to a portable digital device, in the classroom and at home.

Most schools that are currently requiring their students to have personal digital devices require parents to pay for them. In some cases, they require parents to buy top of the line products.

Digital education is the way of the future but the cost of digital devices is a significant burden on parents. No student should be disadvantaged in their education by their parents' inability to pay. Labour will help make digital education more affordable and close the digital divide.

The Crown (through the Ministry of Education) will work with schools to offer a payment-by-installment arrangement so that the parents/caregivers of year 5-13 students are better able afford to purchase a portable device for their child.

As with Manaiakalani (see inset box, page 4), the offer will be targeted to students from year 5 (i.e approximately age nine or what used to be Standard 3 and 4) onwards, i.e. the senior primary school and the secondary school.

Students who sign up for a digital device through this programme will receive a \$100 kickstart Crown subsidy. Parents will pay off the remaining cost in small weekly instalments over about eighteen months to two years.

The Manaiakalani model involves a digital device package (including hardshell carry-case, insurance and manufacturers warrantee) costing around \$600. This is paid off (with no kickstart) at \$3.50 a week. We will aim to bring costs down below this level, through economies of scale and falling technology costs, and that saving will be passed on to families through a lower weekly payment.

This will realise significant savings for parents compared to current situation where they are buying devices at retail price and receiving no government assistance.

¹ 21st Century Learning Reference Group, Future-focused learning in connected communities, May 2014, www.minedu.govt.nz/FutureFocusedLearning, pp. 7, 11.

The schools and the trust have found that the devices are affordable for most students on a \$3.50 a week basis, even at some of the poorest schools in New Zealand. We want to make certain, however, that nobody misses out on this 'digital revolution' in our schools.

Therefore we will also allocate approximately \$5 million a year to schools, on an equitable formula, to support hardship contingency funds that they can use to help the worst-off families if they cannot afford the payment or fall into arrears. We will expect schools to also support the fund from their own income, and to report annually on the fund's operation.

1:1 digital devices

A learner-centred curriculum that includes 1:1 digital devices supports greater flexibility in learning pathways, empowering students to learn in a more personalised way with increased control over their own learning. This can help students engage more deeply in their learning and lift their achievement.

(Ministry of Education, <http://elearning.tki.org.nz/Technologies/Learning-with-1-1-digital-devices>)

The pendulum of expert opinion about the impact of computers on learning has swung backwards and forward over the last decade, but there now seems to be an emerging consensus around a 1:1 approach.

1:1 initiatives are where every child receives his or her own personal computing device, usually with 24/7 access, at-school internet access and education software. The OECD says 1:1 initiatives are "a qualitative move forward from previous experiences in relation to ICT in education" and countries like Portugal and Uruguay have made "bold decisions to invest in 1:1 computing for all of their students" (as has the US state of Maine) while many other countries are engaged in pilot projects on a smaller scale.

The OECD sees the main goals of 1:1 initiatives as:

- to provide learners with the ICT skills and competencies necessary for the knowledge economy and society;
- to reduce the digital divide between individuals and social groups and their access to ICT, not only at school but at home; and,
- to improve the quality of instruction, making it more "student-oriented," in order to elevate academic achievement, bridging the gap between formal (school) and informal learning.

While research on the effectiveness of 1:1 initiatives is at an early stage, there is evidence of a positive impact on ICT skills and writing.

Further reading: Valiente (2010), 1-1 in Education: Current Practice, International Comparative Research Evidence and Policy Implications, OECD Education Working Papers, No. 44, <http://dx.doi.org/10.1787/5kmjzwf19vr2-en>.

Manaiakalani: the 'hook from heaven'

Labour's programme is modelled on the successful and widely-praised Manaiakalani programme.

The Manaiakalani Trust is based in Tamaki and works with twelve lower-decile schools in the area to advance students' learning. There are many aspects to its work, but the one that is relevant here is its effort to ensure that every child in these schools has a netbook and (eventually) 24/7 access to high-speed wireless internet.

Manaiakalani supports access to netbooks not by providing them free or even subsidising their cost, but by facilitating parents to pay for them themselves, with a deposit of \$40 and instalments of \$3.50 a week for three years.

A single trust can do that for a small number of schools but only the Crown is big enough to scale that model to be offered to every school in the country.

Student achievement:

- In comparison with a 'normal' New Zealand acquisition rate of 1 education year per 1 calendar year, students in the Manaiakalani cluster accelerated their acquisition of English and Mathematics at an average rate of 1.5 educational years per calendar year.
- NCEA Level 2 success rates have gone from 26% to 50% to 80% in two years of the programme in Tamaki College.
- At primary level throughout the cluster there have been significant lifts in writing with variable shifts in reading and maths at accelerated rates with more classes each year achieving at or above national standards.

Broken, lost or stolen devices will be covered by insurance while the student is enrolled at a participating school. It is anticipated that the devices' boot screen and homepage will also be custom branded with the name of the programme as a theft prevention device. The devices will be installed with a content filter and schools will be expected to provide students with 'cybersmart' training, including responsible levels of screen time.

Access to the scheme for individual students will need to be dependent on their school being willing to participate, but most schools will be keen to do this, as the costs and time commitment for the schools themselves are low. Even those schools whose students already have high rates of digital device ownership may well wish to participate in order to assist the minority of students who don't own a device.

Once the device has been paid off, it will belong to the family to keep. However, due to the fast pace of technological change, it may be appropriate for schools to upgrade to a new generation of portable devices after a few years, financed on the same basis. There will need to be a whole-of-lifecycle plan for the devices, including recycling options.

The Portable Digital Devices for School Students initiative will be rolled out to 50 percent of schools in 2016 and the other 50 percent in 2017.

| | 2015/16 | 2016/17 | 2017/18 | 2018/19 |
|---------------------------------|---------|---------|---------|---------|
| Annual Operating Cost | 19 | 41 | 26 | 21 |
| Net Annual Capital Cost* | 11 | 12 | -8 | -2 |

*This capital cost may be reduced if private sector partners make themselves available to finance the purchase of the devices

The table above shows the estimated four-year fiscal costs for this initiative, in terms of both operating and capital expenditure. The main sources of operating cost are:

- The \$100 kickstart
- The hardship contingency fund
- A provision for arrears and doubtful debts.

Boosting professional development

Moving all schools to using portable devices as central piece of equipment in every classroom (from Year 5 onwards) has the potential to significantly change how teaching and learning occur in our schools. But the full potential of this change will only be realised if teachers are able to adapt their teaching practice to a more learner-centred approach.



To gain maximum effectiveness from the Portable Digital Devices for School Students initiative, Labour will

commit \$25 million to provide teachers with professional development during the 2016 and 2017 school years to assist them to make the most effective use of digital devices in the classroom.

Many teachers are already well-prepared for the use of digital devices in the classroom. Labour's Laptops for Teachers programme has meant that many teachers have greater confidence and expertise with digital devices than had previously been the case. An estimated 75 per cent of teachers have also undertaken an extended programme of professional development in integrating digital devices into their teaching practice within the preceding five years.²

However, there is still a minority of teachers who are not confident in using digital devices, and a wider range who need assistance and mentoring, including from inspirational fellow teachers, to help make the transition to new ways of teaching using technology. \$25 million of professional development funding, spread over two years, will be targeted towards those needs.

This initiative will be funded from savings as outlined in our package on the Sunday of Congress.

Extending home access to the internet in poor areas

An important part of the learning value for students of having their own portable digital devices is that they can use them both at school and at home, for schoolwork

² Vince Ham, eLearnings: implementing a national strategy for ICT in education, 1998 - 2010, Core Education, http://www.core-ed.org/sites/core-ed.org/files/eLearnings_Chapter-1-exerpt.pdf

and for self-directed inquiry, and during term-time and the holidays. Portable devices have an important role in combating “summer learning loss”, which is a particular risk for students from disadvantaged backgrounds.

The way to get the most out of a portable device, however, is where the student has access to the internet at home as well as at school. Yet, according to last year’s census, 62,000 households with school-aged children (15 percent) do not have access to the internet at home. This ‘digital divide’ reinforces other forms of disadvantage – for the poorest 10 percent of households with children, the proportion without internet rises to four out of ten.



Labour will

partner with schools, local government and communities to put in place infrastructure that will allow students, particularly those from low-decile schools, who do not have currently have internet connections to use their portable devices to access the internet at home.

One way to do this may be via ‘wide area networks’ that extend schools’ internet access to their surrounding communities. The Ministry of Education has given permission for schools to become ‘digital hubs’ for the communities in this way,³ but few have embarked on this as yet and the government’s 21st Century Learning Reference Group has suggested funding support for this purpose.⁴

The Manaia Kalani Education Trust is an example of an operating ‘digital hub’, which has been set up using a community wireless ‘mesh’ network:

- the network covers 95 percent of the housing within the zone of its cluster of schools
- a wireless mesh of repeaters throughout the neighbourhood distributes the network between them
- students’ netbooks give them internet coverage at home at no additional charge
- the remaining five per cent of students have receiver/transmitters installed on the roof of their houses.

We will investigate whether this model, or something like it, can and should be extended across a broad range of low-decile schools. We will be open to working in partnership with Auckland Council and other local authorities to share costs and extend access outside the school population in these communities. It is likely that different options may be needed to support access for students at low-decile rural schools.

In some cases the infrastructure needed may already exist, but collaboration with local authorities and other community organisations can be utilised to ensure that families have the ability to connect at a low cost.

³ <http://www.minedu.govt.nz/theMinistry/EducationInitiatives/UFBInSchools/DigitalHubs.aspx>

⁴ 21st Century Learning Reference Group, Future-focused learning in connected communities, May 2014, www.minedu.govt.nz/FutureFocusedLearning, p. 16.

A capital contingency of \$30-\$50 million will be set aside for this project.

Further details on Labour's plans for digital inclusion will be announced in our ICT policy, which reflects Labour's commitment to ensure all New Zealanders have access to the internet.

Other education ICT initiatives



Labour will also

Enable schools to use their five-year property agreements to invest in computer and interactive learning technology.

Continue to roll out ultrafast broadband to every school in the country, whilst also ensuring that they have the technology infrastructure to make the best use of it.

Continue to invest in the Network for Learning, the Virtual Learning Network (an online community supported by the Ministry of Education), software licences, and other programmes that ensure all schools have access to the resources they need to provide education for the 21st century.

Continue the roll-out of the School Network Upgrade Project.

Modern schools for modern learning

Every student has a right to a positive learning environment. Too many of our schools and early childhood centres are struggling to cope with out-dated facilities. Over the next few decades, upgrading schools and early childhood centres will be a major challenge.



Labour will

develop a comprehensive plan for rebuilding out-dated and worn-out school buildings, so that every school has access to modern learning environments by 2030.

The school property estate is vast, but it is also ageing. We have over 2,300 schools and 35,000 classrooms occupying around 6,900 hectares of land. The average New Zealand school is 42 years old, built in the early 1970s, with many built in the 1950s or 1960s as well. A third of schools are over fifty years old.

Fewer than half of schools meet the Ministry of Education's 'advanced' Modern Learning Environments Standard, and many need to be upgraded to enable effective use of computer technologies to support modern styles of teaching and learning. The Ministry advises that, rather than the traditional classroom, a modern school is made up of flexible teaching zones that be configured and used in a variety of ways.

Schools also face the challenge of population growth and change. A 'population bubble' of children born between 2007 and 2012 is starting to enter primary schools

now and will enter secondary school from 2020, increasing student numbers by about 50,000. It is estimated that 2,500 more teaching spaces will be needed over this period. There are already about 420 schools who need additional capacity.

These challenges are also an opportunity, if we are smart and take a long-term approach. Decisions about 'bricks and mortar' have long-lasting implications that can either broaden or restrict educational choices in the future.

That is why Labour is going to move to a longer-term and more transparent approach to the school property budget.

We know that whoever is in government over the next fifteen years is going to need to continue to spend hundreds of millions each year on building new schools, classrooms and facilities, and upgrading existing ones. We will quantify and make public that future spend over the 2015-2030 period, and then develop a process for how to allocate that money with an eye to the long-term rather than the short-term. This approach has a number of advantages:

- Thinking fifteen years out rather than five can save money in the long run by avoiding 'band-aid' solutions to schools that actually need comprehensive capital works.
- It involves schools and their wider communities in the process of thinking about their future educational needs rather than just sitting in the queue of a hard-to-fathom Ministry allocation system.
- It also gives communities and local authorities the opportunity to think about their own needs for facilities (such as, for instance, public swimming pools) in a joined-up way with planning for school facilities.

This last point is important because it recognises that schools and early childhood centres are the heart of local communities. Increasingly they're being asked to offer an ever greater level of support to their students and the communities they are drawn from.



Labour will recognise and support the role of schools as community hubs by

working with local councils to better coordinate provision of public services and facilities such as libraries, swimming pools, recreational facilities and community halls.

actively encouraging the co-location of other social services on school sites, including health services and programmes that support parents.

encourage greater co-location of schools and early childhood centres.

making better use of school facilities by re-instating funding to adult and community education programmes.



Labour will also

review the guidelines for leaky building remediation to stop schools getting ripped-off and ensure value for money.

Authorised by Tim Barnett, 160 Willis St, Wellington