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SCHOOLS FUNDING – POLITICS VS POLICY

From the Executive Director

The 2017-18 Federal Budget[1] is a good outcome for most Australian schools with the clear majority to receive sustainable increases in Australian Government funding over the next 10 years. The Budget incorporates the Commonwealth's proposed funding arrangements for schools from 2018 which were announced by Prime Minister Malcolm Turnbull and Education Minister Senator Simon Birmingham (alongside David Gonski) on 2 May.

It provides an additional $3.4 billion over the next four years for schools compared to the 2015-16 Budget settings announced in the first year of the Abbott Government.

Forget about cries of a $22 billion cut in schools funding over the next decade; the reality is that the government of the day sets and implements policy. The policy will see Australian Government support for schools grow from $17.5 billion in 2017 to $30.6 billion in 2027.

This is a healthy increase (on average 5.2 percent per student per annum for government schools for the next four years; 3.7 percent for Catholic schools and 4.4 percent for independent schools) in the current economic and budget climate and at a time when there is justifiable questioning of whether more funding for schooling results in improved educational outcomes.

It also comes on top of significant increases in Commonwealth funding provided to schools over the past decade.

Unfortunately, much of the commentary on the announcement has focused on the politics rather than the policy itself.

The so-called "Gonski" funding model introduced by the Gillard Government, whilst not perfect, in theory had a focus on a needs-based and sector-blind approach to funding schools.

Its implementation was severely compromised by a multitude of special deals across states and sectors and the unsustainable commitment that no school would be worse off because of the new model.

It was inevitable that the massive increases in funding proposed through the Gonski model would not materialise in the longer term.

Minister Birmingham has at least attempted to address the special deals and make schools funding more sustainable in the next decade through the adoption of Gonski 2.0.

Any change to funding models will result in funding level changes in some schools unless of course there is a commitment that no one is worse off. Historically, this pledge has been made for decades in education. It ultimately results in the undoing of any funding model (even the good ones) as distortions in funding between schools are highlighted and often further built upon through special deals to "fix" the consequences of special deals.

Minister Birmingham has chosen to not adopt a "no losers" position – a policy is a policy and it should be applied equally to all. However, he may pay a heavy political price for championing good policy over politics, despite the fact Gonski 2.0 is reported to be by far and away the most popular budget measure with "a thumping 86 percent of all voters supporting the policy"[2].

1 The 2017/18 Federal Budget details in relation to education can be found at https://www.education.gov.au/portfolio-budget-statements-2017-18
2 Reported in the *Sydney Morning Herald* 15th May 2017

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For parents, what matters most is the resourcing (and in the case of independent schools, the fees) at the school level.

If we accept the Gonski model as being right for Australian schooling and if it is implemented without special deals, there will inevitably be some adjustments to resourcing at the individual school level (otherwise why change policy).

This will be a challenge for some independent school communities, which Independent Schools Queensland acknowledges. The Federal Government has confirmed over 9,000 schools will receive additional resourcing under Gonski 2.0, However this point has been lost in the media reporting about the 24 schools that will lose funding in 2018 and the 356 schools whose funding growth will be slowed (but still receive increases) over the next decade.

Talk of school closures is emotional nonsense. It would be difficult to identify any non-state school that has closed because of changes in Australian Government funding policy in the past 30 years.

For a small number of independent schools, there may need to be a longer-term upward adjustment to fees. This is difficult for the schools involved and will be a challenge. Independent schools make operational decisions about fee levels in the context of their market and the assistance provided by governments.

The Commonwealth has appropriately allocated $40 million in a special fund to assist schools in special circumstances with the transition. Independent Schools Queensland will continue to work with any impacted schools to assist in transition arrangements.

The one aspect of the new federal policy that resonates strongly with school leaders is the move towards a level playing field when it comes to funding. A sector-blind funding model where students are funded equitably without reference to the sector of schooling or their state or location has strong support across the community.

For non-state schools, there will always be an argument about what is the appropriate government contribution towards their funding entitlement based on the Schooling Resource Standard (SRS). The SRS entitlement is fully funded by governments for state schools, but for non-state schools the entitlement is discounted according to the capacity of parents to contribute to school costs.

Under Gonski 2.0, the Federal Government has decided that it will fund 80 percent of the discounted SRS entitlement for non-state schools. State governments will be expected to fund the other 20 percent. Again, the 80 percent will apply no matter what sector or state/territory – a level playing field where all schools are treated equally. It is hard to argue this is not good policy.

This level of Australian Government support for independent schools is fully justified. By not taking up a fully-funded place at a state school in Queensland, children in independent schools save taxpayers in the order of $1 billion a year in both recurrent spending and building costs.

The Federal Government has commissioned David Gonski to undertake a second review – *Review to Achieve Educational Excellence in Australian Schools* – focusing on how to best utilise our increasing investment in schooling. This will be an important piece of work. Australia spends $60 billion on schooling annually. It is timely for a review of where this money is allocated, how it is used, and what works best in terms of improving outcomes. The focus on policy reforms rather than funding will no doubt give Gonski the scope for a broad range of recommendations about how to improve education standards.

The Federal Budget also included a much-needed boost to capital funding

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for non-state schools with an additional $300 million over 10 years to expand the Commonwealth's Capital Grants Program.

The Government has also allocated $5.9 million over four years to trial the use of digital applications to improve English literacy outcomes for Aboriginal and Torres Strait Islander children, and $14.3 million has been allocated over three years to build a whole-of-government data integration, policy analysis and evaluation capacity (the *National Education Evidence Base*).

The Government will also provide $429.4 million over two years to extend the National Partnership Agreement on Universal Access to Early Childhood Education for the 2018 calendar year. This is an important extension which provides recurrent funding for independent schools providing kindergarten programs.

The Federal Government has moved quickly to put in place its proposed new funding model with a Bill to amend the *Australian Education Act 2013* introduced into Parliament on 11 May[3].

Australian schools have endured a long period of uncertainty in relation to school funding policies starting with the original Gonski review in 2011. It is hoped that the Gonski 2.0 funding model will provide a sustainable funding transition over 10 years to give schools greater certainty and confidence to look ahead to plan their staffing, resources and education programs. This will support more strategic and informed decision-making to lift student outcomes.

DAVID ROBERTSON
Executive Director

3 Details of the Bill can be accessed at http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;page=0;query=BillId%3Ar5866%20Recstruct%3Abillhome

INNOVATION WITH INTRAPRENEURS

Lead Author
LEIGH WILLIAMS
former Assistant Director (Teaching & Learning)

Co-author
KRISTINA SAMIOS
Manager (Teaching & Learning)

Leigh's contribution to fostering thought-leadership in the independent schooling sector through ISQ's *Briefings* research features is recognised.

ISQ wishes Leigh the best in her future endeavours.

"[Researchers]refer to this second decade of the 21st century as the Innovation Age, having moved beyond the Information Age"

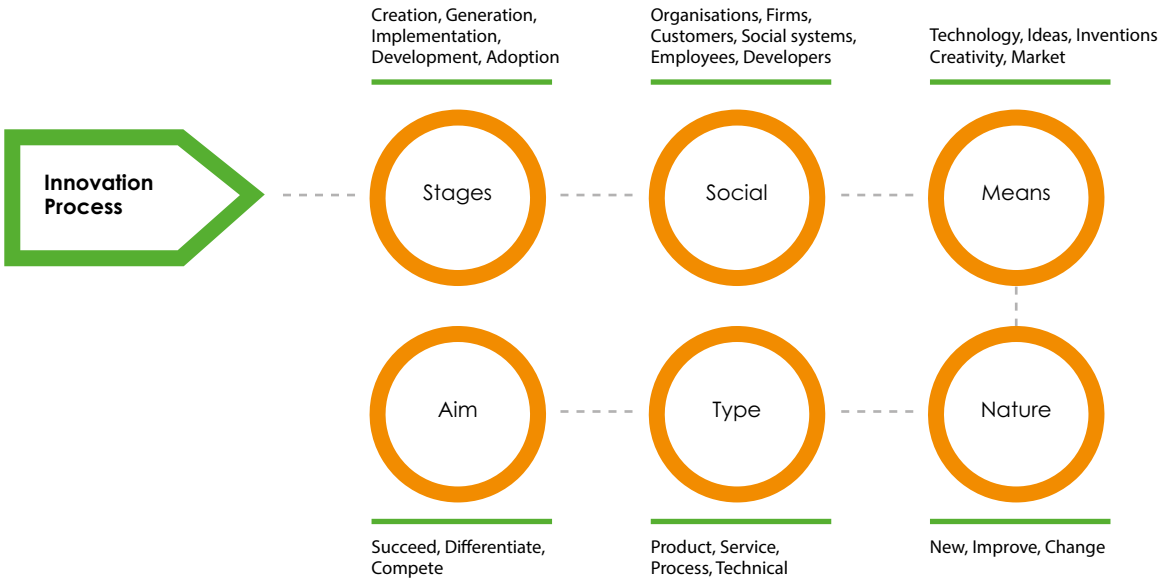
Roberts (2011)

Understanding Innovation

Innovation is an elusive term, for which the definition has been debated for a century (Baregheh, Rowley & Sambrook, 2009). It is a concept that is discussed and defined differently by a large array of business disciplines (Baregheh et al., 2009). Despite the variance in definitions, innovation is an essential process through which opportunities are taken that progress the effective functioning of organisations (Koch, Binnewies, & Dormann, 2015). A literature and content analysis by Baregheh et al. (2009) of innovation definitions led to the following integrative definition of organisational "innovation" as, "the multi-stage process whereby organisations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace" (p. 1334).

To help frame the context of innovation, the word "creativity" is often used synonymously with innovation. Creativity though is not innovation itself, but in its simplest terms, a necessary but insufficient prerequisite input leading to the output of innovation (Koch et al., 2015). According to Somech and Drach-Zahavy, (2013) innovation consists of two stages: creativity, the generation of new ideas; and the successful implementation of creative ideas. Extending from this

Figure 1: Innovation Process Model (adapted from Baregheh et al., 2009, p. 1333)



explanation, creativity is described as the generation of ideas that drives the stages of innovation as a process, and a developmental means which can amplify knowledge for entrepreneurial competency (Cachia, Ferrari, Ala-Mutka & Punie, 2010), towards the implementation of an entrepreneurial aim, as displayed below in the "Innovation Process" Model (Figure 1) developed by Baregheh et al. (2009).

Societies are changing through a policy-driven focus to alleviate and avoid economic, environmental and social crises (Cankar, Deutsch & Setnikar Cankar, 2013; Cashia et al., 2010). There is an urgency for societies to become more creative and innovative to be at the forefront of this new world (Cashia et al., 2010)

Creativity, as a means for innovation, facilitates social development and transformation in the 21st century and is based on three main factors: young people, ICT (information and communication technology) and entrepreneurship (Cankar et al., 2013; Salkowitz, 2010). Education has been recognised for the key role that it plays in fostering the development of creativity, innovation and entrepreneurship in young people, which has led to the development of emphasis on this knowledge triangle in curricula (Cankar et al., 2013; Cashia et al., 2010). For educators and school leaders to develop these type of graduates, there must be room for the educators themselves to model entrepreneurship, by developing their own creative and innovative ideas and products that will deliver the most suitable education for these students.

Innovation in Education

Society itself is changing at an astonishing rate. Students, parents and society have changing demands on what they expect from education, so schools need to ensure they are meeting those needs, without just constantly adding more to what they already do. Innovation allows for taking advantage of opportunities and for remaining competitive (Shalley, Zhou, & Oldham, 2004), therefore, schools must find innovative ways to adapt to changing working conditions and requirements (Reilly, Lilly, Bramwell, & Kronish, 2011).

> Intrapreneur:
> *an entrepreneur who operates within the framework of an existing business.*

Bogers & West (2012) describes three perspectives, or approaches to innovation in the context of industrial organisations: vertically integrated, open and user innovation. "Vertically integrated innovation" is the end-to-end four stage process of consisting of basic research, invention, development and production, crucial to the economic success of large industrial firms. A modified version of this process, also focused on revenue generation, is known as "open innovation", where firms commercialise external innovations, such as new technology and find external paths to commercialise their own innovations through others. "User innovation" differs from these approaches due to a focus on the utility gains for the user, rather than economic benefits, with the innovation most likely in the form of a new, or improved product, or service. Users can source and integrate external innovations, but the focus on these is to enable users, and the user community, to innovate, to share their innovations and to develop user entrepreneurship (Bogers & West, 2012). Within a school organisation, the users are the teachers and the students, therefore, user innovation is the appropriate description for innovation designed and developed by teachers and leaders within schools, in process, service and administrative innovation.

There are thousands of books and resources that describe entrepreneurs and how to develop oneself to be more of an entrepreneur. It is not possible that every single entity can be an entrepreneur, but everyone can be entrepreneurial, particularly within their own organisation. These people, the user entrepreneurs that operate within the framework of an existing business are referred to as "intrapreneurs" (Scarborough & Cornwall, 2016). They create innovation through new products, processes, services and ideas within their current workplace and use the strength and resources of the organisation to collaboratively build scalable innovations.

The following example from Microsoft, shows how intrapreneurs can create scalable change through the freedom of the company's culture and resources:

"Microsoft renovated one of its older buildings, transforming it into the Garage, an incubator equipped with all the latest technology for employees to explore and develop ideas they have for new products and services. Garage director, Quinn Hawkins, says the inspiration for the incubator (and its name) came from all of the great companies, such as Apple, Hewlett-Packard, and Amazon, that started in garages. After receiving four emails in one week with missing attachments, software engineer Bhavesh Chauhan used the Garage's resources to develop a program that automatically scans emails for words that indicate that the user intends to send an attachment. If the emails contain no attachment, a notice pops up to alert the user. Chauhan's forgotten attachment detector appeared in Microsoft's Office 2013 Software" (cited in Scarborough & Cornwall, 2016, p. 116).

One of the four strategic objectives of the European Education and Training 2020 (Council of the European Union, 2009b) is to develop and enhance creativity, innovation and entrepreneurship at all levels of education and training

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(Cashia et al., 2010) National and international level educational policies debate how to best develop creativity and innovative capacity (Vieluf, Kaplan, Klieme & Bayer, 2012) however, it is recognised that adapting and responding to the characteristics and needs of students is an inherent characteristic of pedagogy, and as such, teaching is an innovative practice in itself (Vieluf et al., 2012).

Teachers are the user innovators, the intrapreneurs within the school context, and as such, key drivers of school innovation (Koch et al., 2015) It is important to consider that ideas generated by teachers within and for their own context have the greatest likelihood of being appropriate, worth implementing and supported by adequate thought and plans for implementation, therefore leading to school innovation (Koch et al., 2015). Bogers and West (2012) indicate that there is little research in this field of teacher innovation and entrepreneurship. With respect to practical implications, educators and school leaders gaining knowledge about the mechanisms of creativity and innovation at the organisational level is of great importance (Harter, Schmidt, & Hayes, 2002), so what valuable innovation lessons can schools learn from other organisations and industries?

What school can schools learn from other organisations

"Creativity doesn't just happen in organisations", (Scarborough & Cornwall, 2016, p. 111) leaders need to create an environment for creative processes and innovative products to flourish. According to Scarborough and Cornwall (2016), this starts with a culture of allowing creativity to cultivate from a fragile creation to a fully developed process or product. From their research, they conclude that organisational cultures where freedom to be creative is valued, there is a far greater chance and opportunity for innovations to occur. For leaders to create this type of culture, Scarborough and Cornwall make the following recommendations:

- include creativity as a core company value and make it in an integral part of the company's culture
- hire for creativity
- establish an organisational structure that nourishes creativity
- embrace diversity
- expect creativity
- expect failure and learn from it
- incorporate fun into the work environment
- encourage curiosity
- design a workspace that encourages creativity
- view problems as opportunities
- provide creative training
- eliminate bureaucratic obstacles and provide the support necessary for innovation
- develop a procedure for capturing ideas
- talk with customers – or better yet, interact with them
- monitor emerging trends and identify ways your company can capitalise on them
- look for uses for your company's products or services in other markets
- reward creativity
- model creative behaviour
- don't forget about business model innovation.

While this list is extensive, of the main ideas are discussed further through the following themes: building and extending intrapreneurs, and creating an innovative school structure.

Building and extending intrapreneurs

Research has shown that the roots of most innovations are ideas developed by those workers closest to the problem or opportunity (Hughes, Ginnet & Curphy, 2015). This does not preclude leaders from being innovative but rather emphasises the importance of having innovative intrapreneurs in the organisation paired with a culture for them to flourish. As well as recruiting these types of educators and middle leaders, senior leaders should build motivations and incentives that are conducive to creativity and build a vision for what the creative output might look like (Zhang & Bartol, 2010). This could include anything from streamlining internal processes to designing a new, more impactful method for teaching particular student groups or subjects.

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To create incentives, leaders may need to be mindful of the impact on self-motivation (Amabile, 2001). Particular types of motivational tactics foster creativity more than others. Amabile's (2001) research highlighted that the exact motivations for workers are dependent on context, but that successful creative projects were born from leaders being able to identify and develop those workers who enjoyed working on tasks and projects, than those who solely focused on the end product (and eventual recognition or reward that followed). To help identify these people in an organisation, Hogan and Morrison (1993) analysed the personality traits and types of intrapreneurs across multiple, successfully innovative organisations in a variety of industries. They found many similarities in these types of people.

"In general, creative people are open to information and experience, have high energy, can be personally assertive and even domineering, react emotionally to events, are impulsive, are more interested in music and art than in hunting and sports, and finally are very motivated to prove themselves (that is, they are concerned with personal adequacy). Thus, creative people tend to be independent, wilful, impractical, unconcerned with money, idealistic, and nonconforming" (Hogan & Morrison, 1993, cited in Hughes et al., 2015, p. 312).

This research shows that leading intrapreneurs could be challenging; they are smart, creative and won't always follow others (Scarborough & Cornwall, 2016). Adding to this, the traits described above generally don't reflect the traits of most senior leaders, so the potential for personal conflict can increase (Hughes et al., 2015). In a study by Hogan and Morrison (1993), organisational senior leaders and intrapreneurs stressed the importance of allowing creativity to flourish with minimal conflict or distraction from the organisational vision. Figure 2 summarises the most frequently discussed aspects that emerged from this research to successfully lead intrapreneurs.

Figure 2: Methods to Successfully Lead Intrapreneurs

1. SET CLEAR MEASURABLE GOALS

Creative people value freedom and independence. This step will be best accomplished if leaders set a high level of participation in the goal-setting process. Leaders should ask followers what they can accomplish in a particular time frame.

2. PROVIDE ADEQUATE RESOURCES

Followers will be much more creative if they have the proper equipment to work with because they can devote their time to resolving problems rather than spending time finding the equipment to get the job done.

3. REDUCE TIME PRESSURES, BUT KEEP FOLLOWERS ON TRACK

Try to set realistic milestones and goals, and make organisational rewards contingent on reaching these milestones. Leaders need to be well organised to acquire necessary resources and to keep the project on track.

4. CONSIDER NON-MONETARY AS WELL AS MONETARY REWARDS

Creative people often gain satisfaction from resolving the problem at hand, not from monetary rewards. Feedback should be aimed at enhancing their feelings of personal adequacy. Monetary rewards perceived as controlling may decrease rather than increase motivation toward the task.

5. RECOGNISE THAT CREATIVITY IS EVOLUTIONARY, NOT REVOLUTIONARY

Although followers can create truly novel products (such as the Xerox machine), often the key to creativity is continuous product improvement. Making next year's product faster, lighter, cheaper, or more efficient requires minor modifications that can, over time, culminate in major revolutions. It may be helpful if leaders think of creativity more in terms of small innovations than major breakthroughs.

Adapted from Hogan and Morrison, 1993, p. 45.

Innovation in organisations will most likely occur when leaders include, value and build the conditions that motivate contributions of creative employees already working within the organisation and extending this by looking and hiring for creative characteristics in new employees.

Creating an innovative school structure

Understanding, hiring for, and establishing conditions for individual creativity provides the catalyst for innovation. However, creativity and innovation researchers are increasingly discussing innovation as an interactional approach. In an interactional approach, individuals work together as teams with the intentional aim to benefit their society, organisation and team in a collaborative, equal, multi-perspective approach rather than through top-down channels (Somech & Drach-Zahavy, 2013). To allow this interactional innovation to occur, creativity needs to be actively nourished through the organisational structure (Scarborough & Cornwall, 2016).

Effective interactional innovation is a challenge in schools, traditionally built on hierarchical structures not designed for the constantly changing, fast paced 21st century environment (Avenell, 2016). Couros (2016), suggests that moving from a closed, hierarchical structure to one that is open and distributed will facilitate a culture of interactional innovation in schools. This structure requires leaders and teachers working together in internal and external networks, as connected educators, generating ideas through multiple perspectives in dynamic social groups that are not restricted by hierarchical roles (Couros, 2016). This structure of two-way flow of

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power, authority and communication focused on collaborative creativity, innovation and improved results within a wired and networked society is termed "wirearchy" (Husband, 2016). The challenge here is that principals still need to oversee school efficiency, student welfare and learning, therefore, principals need to work in a "dual operating system" (Paterson, 2016). This dual operating system allows the principal to walk between two worlds: one where the hierarchical responsibility rests on their shoulders to oversee school and students; and the other, where the principal is part of and facilitates the wirearchy.

The dual operating system liberates information contribution and creativity from all traditional educational silos in a dynamic network while retaining enough hierarchy needed for reliability and efficiency (Avenell, 2016). To promote successful networking and innovation within schools, it is advantageous to lead this kind of dual operating system and to support this, Paterson (2016) has the following suggestions:

- finding the time to work on dialogue – learning from the principles of successful organising
- fostering connections – encouraging active networking and building diverse connections
- devolving decision-making to the frontline – understanding and actively employing subsidiarity to effectively incorporate latest data into decision-making
- teaching people to work in teams – challenging deeply embedded structures and infusing teaching with a genuinely collegial, collaborative ethos
- becoming more intentional about informal learning – because 80% of learning is informal and it is often left to chance – recognise and encourage informal networks.

The dual operating system and development of an innovative networking culture, through strategies such as above, provides a structure from which school creativity, innovation and intrapreneurship can flourish. Somech & Drach-Zahavy (2013) suggest that within the contextual climate for innovation as well as the team composition and the processes used by teams within the network affect the success of the innovative process. One or two highly creative personalities within a team encourage critical thinking and the adoption of creative intentions as team norms, which then may facilitate whole team creativity (Somech & Drach-Zahavy, 2013). Therefore, these researchers suggest that to promote a successful process of creativity to the completion of innovative accomplishments, managers and leaders need to consider:

- designing team composition based on integrating functional diversity, not only on individual characteristics (including creativity)
- that team composition should be made up of diverse individuals: including some with high creative abilities; that work in different organisational roles; that bring diverse viewpoints and new information to the team
- boosting the climate for innovation by quickly establishing and anchoring shared norms in teams that facilitate creative intent
- boosting the climate for innovation by valuing each teams' creative visions and missions and promoting their importance in everyday business.

Regardless of the innovation climate, structure and team compositions, to generate and implement novel work requires sufficient time (Somech & Drach-Zahavy, 2013). Time is a precious resource in most organisations, including schools, therefore, it is important to consider this in balance with the focus on a proposed innovation. Time itself is said to be money, and investment in innovation can represent substantial capital expenditure for organisations (Talukder, 2014). As innovation is a process whereby organisations could transform a plethora of ideas into new and, or improved products, service or processes (Baregheh et al. (2009) it is important that teams and leaders focus attention on the most appropriate innovations for their organisation.

Characterising Innovation

To decide on the most appropriate innovations, characterising the innovation based on a set of merit or criteria can be helpful for leaders and schools. Initially, creative ideas must be novel in relation to other available organisational ideas. The idea or ideas need to be seen to have short or long run value-add potential for the organisation, before developing the ideas for implementation as innovation (Somech & Drach-Zahavy, 2013). Research conducted on the characteristics of successful and unsuccessful innovations found that a set of characteristics helped give guidance as to whether the innovation would be successful in its intended market (Clarke, 2017). The success of an innovation is the level of diffusion of the innovation, which rests along

a continuum from: awareness for the need of; the decision to adopt; initial use; to continued use of the innovation (La Monte, 2016). If an intra or entrepreneur can adequately answer or provide evidence of the following characteristics, the likelihood of diffusion success for the innovation is high:

- relative advantage (the degree to which it is perceived to be better than what it supersedes)
- compatibility (consistency with existing values, past experiences and needs)
- complexity (difficulty of understanding and use)
- trialability (the degree to which it can be experimented with on a limited basis)
- observability (the visibility of its results) (Clarke, 2017, p. 3).

Nevertheless, the rate of the innovation's acceptance by the end client/student/teacher can vary quite dramatically, as the successful introduction of an innovation in an organisation requires a change in employee attitude and behaviour (Talukder, 2014). Theories, such as the Diffusion of Innovation (Rogers, as cited in La Morte, 2016) attempt to describe the process from early adopters through to laggards, but highlight that the speed at which the innovation is accepted and used by all groups can be dependent on the rigour of evidence against the characteristics described above. Refer to Figure 3. Sometimes, according to La Morte (2016), it becomes widely accepted through convincing marketing that creates a thirst for the innovation for the end client/student/teacher.

However, successful innovation in organisations requires the early and ongoing involvement of the people who will use the innovation (Talukder, 2014). In schools, these are the teachers and leaders who are closest to the problems and opportunities, making them the user intrapreneurs within schools that, given the conditions for creativity, can innovate in appropriate ways for their own contexts, most likely leading to successful innovation diffusion.

Conclusion

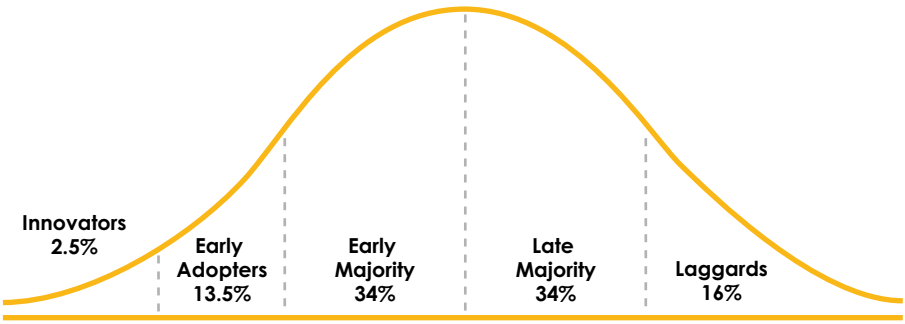
There is an urgency for societies to become more creative to facilitate social development and transformation in the dynamic environment of the 21st century. Education plays a key role in developing the creativity, innovative ideas and entrepreneurial skills of young people. The modelling of these behaviours and skills by their teachers, as user intrapreneurs within schools, ultimately benefits the students, teachers, the school as an organisation, and society.

Intrapreneurship is supported in a contextual environment that values, supports, develops and is structured to create the ideal culture where creativity is cultivated to blossom into the successful implementation and diffusion of innovations. To build this intrapreneurial culture, principals and leaders in schools need to:

- be aware of effective motivational tactics that foster creativity
- identify creative employees within the school and specifically hire creative people
- understand, include, value and build the conditions that motivate contributions of creative employees
- develop school structure as a dual operating system where all levels of the school hierarchy work together in collaborative wirearchy networks, teaching employees to work as effective, critically dialogic teams as part of a decision-making school network
- design network team composition to include one or two creative personalities with other employees from a range of organisational roles to integrate functional diversity
- establish and anchor norms within teams and the school that value creative visions and missions and promote the importance of these in everyday business
- provide the necessary time for the innovation process, however, focus time and attention on appropriate intrapreneurial ideas by considering the proposed innovation's capacity for successful diffusion.

The pioneer principals and leaders in schools that understand and manage these brave steps into a creative, innovative intrapreneurial culture are educational innovators, transforming schools by the intentional cultivation of teacher intrapreneurial innovation, ultimately leading to crucial 21st century social development.

Figure 3: Diffusion of Innovation Model (adapted from EM Rogers)



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Head Office
1st Floor, 96 Warren Street, Spring Hill Q 4000
PO Box 957, Spring Hill Q 4004
P (07) 3228 1515 **F** (07) 3228 1575
E office@isq.qld.edu.au **www.isq.qld.edu.au**

Professional Learning Centre
Level 5, 500 Queen Street, Brisbane Q 4000
PO Box 957, Spring Hill Q 4004
P (07) 3228 1507
E events@isq.qld.edu.au