

Making a difference to teacher quality

- to ensure inclusive and quality education for all by 2020

This report outlines a knowledge mobilisation strategy enabling Teachers and Teacher Educators to become “change agents” for UNESCO SDG4

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Published on behalf of teacher and teacher educator organisations and individuals from many countries attending the first Global Teacher Education Knowledge Mobilisation Summit for UNESCO SDG4c in London, UK and subsequent conferences in 2016 where the ideas were discussed. Supporting associations include: The Association for IT in Teacher Education, Universities Council for the Education of Teachers, MirandaNet, Special Interest Groups from the British Educational Research Association, Education Futures Collaboration Charity and founder member associations (International Council on Education on Teaching, UK, Australia and New Zealand teacher educator organisations (UCET, TEFANZ, ATEA) as well as individual universities from five countries.

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Irina Bokova Director General of UNESCO 2015 p.4

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Dr A. Gawande (2015) The Century of the System. BBC Reith Lecture

Executive Summary

UNESCO's Sustainable Development Goal 4 is to "Ensure inclusive and quality education for all and promote lifelong learning" (UNESCO 2015 p.1).

To achieve this Irina Bokova, Director General of UNESCO, calls upon educators to act as "change agents" to improve learning outcomes for children in both developed and developing countries:

"...we need a new focus on the quality of education and the relevance of learning, on what children, youth and adults are actually learning...We need an even stronger focus on teachers and teacher educators as change agents across the board."

UNESCO 2015a Rethinking education toward a common good p.4

Teachers are uniquely placed to provide a bridge between ignorance and knowledge in their communities and so to help combat poverty, extremism, illiteracy and inequality (OECD 2009) but as a profession, they need the means to access, skills to generate and tools to codify new professional knowledge to do this.

Much knowledge of potential benefit to teachers and their communities worldwide is held in university databases, research institutes, academic articles or doctorates, and for developing countries, by individual aid agencies.

This Report outlines a low cost 'marginal gains'¹ knowledge mobilisation (KMb) strategy and system for giving teachers in large and small nation states, access to the latest knowledge in all subjects and in pedagogy, thereby supporting a step change in the education of teachers by 2020. The proposition is that the 'marginal gains' achieved through minor changes in processes and practices at all levels and by all players, could be coupled with the effective use of existing assets, to provide, cumulatively, a self-sustaining system for keeping teachers' knowledge up to date.

The KMb strategy has been developed over a number of years by educators² from developing and developed countries who are expert in professional training, distance education and the use of digital technologies.

The KMb strategy outlined here uses existing knowledge and networks, and digital tools widely available through smartphones coupled with online networking.

The KMb strategy proposes a quality assured updatable 'Edupedia' for teachers. Wikipedia shows the power of harnessing the goodwill of professionals to work collectively to share and update knowledge, as do the European SchoolNet (www.eun.org) and medicine's Cochrane Collaboration (www.cochrane.org). These international collaborative initiatives, surviving over 20 years, demonstrate a sustainable business model. Core funding costs for the infrastructure and core staffing are shared between interested parties with additional projects funded through small grants from many sources. A wide network of committed individuals then plays a central role in content development and quality assurance. Proof of concept and commitment to developing such an 'Edupedia' is already modeled through educators' engagement in

¹ "Marginal gains": are minor changes which collectively support major changes: see 'marginal gains' the secret behind the British Cycling team's Olympic success <https://www.britishcycling.org.uk/gbcyclingteam/article/gbr20140411-British-Cycling---The-Brailsford-years-0>

² By 'educator' we mean teacher, lecturer, tutor, instructor and teacher-educator.

international and national professional associations and the international MESHGuides 'Edupedia' prototype³ (MESH: Mapping Educational Specialist knowHow, www.meshguides.org).

The KMb strategy proposes efficient use of existing assets through an internationally coordinated system for collecting and quality assuring knowledge for the teaching profession. Through low cost online international collaboration and networking, existing knowledge can be further tested and localized in new settings as demonstrated by Hennessy (2016) and Payler (2016).

To summarise, the key message of this Report is that:

The education sector has within it the knowledge needed to improve the education of all children but this knowledge is held in isolated pockets and is not yet accessible to all teachers in developing or developed countries, in large and small nation states. To improve this situation a knowledge mobilisation (KMb) strategy is proposed led by an international body of educators, mobilised to use low cost digital tools to

- ***collect, codify, summarise and index existing knowledge to create an accessible 'Edupedia'***
- ***collaborate internationally to identify knowledge gaps; and to share and build knowledge across the school-based education sector, through an online network of educators.***

The KMb strategy outlined here could bring a step change within three years, by 2020; so that by 2030, every child in participating countries could have benefited from having had teachers⁴ who can access and contribute to a dynamic, educational knowledge base.

Existing models for educational reform have not brought the universal changes needed. This KMb strategy provides the opportunity for a new approach, which makes the most of UNESCO's unique networks and role in supporting the international exchange of ideas and as a setter of international standards. Those involved at all levels in education systems have a role to play in the KMb strategy.

³ The MESHGuide open source standard for research summaries is being developed by educators building on 30 years of research and development in educational knowledge management and incorporates lessons learned from multiple government investments in KMb initiatives and OECD research (www.meshguides.org, see also OECD KM repository <http://goo.gl/BAoRfh>).

⁴ While the strategy focuses on educators; learners, parents, adults with learning needs, policy makers and research funders might also find the outcomes useful.

1/ Introduction

UNESCO launched the Sustainable Development Goals (SDG) programme in 2015 following the Millennium Development Goal programme which ended in 2015. This Report focuses on the contribution educators working as “change agents” and supported by digital technologies could make to SDG 4 which is:

“Ensure inclusive and quality education for all and promote lifelong learning.”

UNESCO 2015 p.1

SDG 4 has 10 targets⁵. This Report focuses on the teacher education target:

“By 2030 substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states.”

UNESCO 2015 p.1

Through knowledge mobilisation in education and consequent teacher development, this strategy will also contribute to a second target:

“By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.”

UNESCO 2015 p.1

This Report was developed by educators working on key challenges outlined by UNESCO UK Commission, OECD and UNESCO (Paris) colleagues⁶ at the Global Teacher Education Summit in London, in April 2016. Specifically, Gary Brace, UKNC non-Executive Director for education, asked participants to consider the following:

“What can the teacher education sector do to help developed and developing countries overcome their resource constraints in keeping teachers up to date with how and what to teach.”

Brace 2016

Current UNESCO, and OECD reports acknowledge the unrealised benefits of improved networking and knowledge sharing across the education sector especially with open online educational resources (OERs) (OECD 2009, UKNC Policy Brief 7, Udnaes et al 2014).

The consultations which took place to develop this Report indicate that there is an extensive body of educators who support UNESCO’s goals and who are prepared to work in the new ways outlined here to support the achievement of SDG 4. Through a marginal gains approach, small changes can be achieved quickly by a range of key players and stakeholders in the education sector, which could lead to significant gains and the realisation of SDG 4 by 2030.

⁵ <http://www.un.org/sustainabledevelopment/education/>

⁶ For details see the Acknowledgements and Leask and Younie et al (2016)

2/ The challenges

The knowledge mobilisation strategy outlined here addresses the following challenges:

- Global literacy
- Teacher access to up to date knowledge
- Teacher retention
- Funding teacher lifelong learning

Global Literacy:

“...58 million children worldwide still do not go to school. Of those in school, an estimated 130 million are still unable to read or write following four years of education. And over 750 million adults lack sufficient literacy skills.”
Brace 2016 p.1

The figures above demonstrate that in many settings teachers need help with teaching the basic skills of reading and writing. Research in developing and developed countries suggests that communities, parents and grandparents also need help in understanding how to get children ready for school and for learning (Dragea (Uganda) 2014, Sylva et al (UK) 2010).

Teacher access to up to date knowledge – formally through initial and ongoing training and informally through lifelong learning: in both developing and developed countries there are teachers with little or no training in the subjects they teach and take-up of professional development opportunities is patchy (Bartholomew (Philippines) 2016, Kubacka (UNESCO, Paris) 2016, Von Ahlefeld (OECD) 2016).

In many countries specialist expertise is thinly spread: e.g. in 2010, the UK Institute of Physics identified only one professor of Physics Education in the UK. Much specialist knowledge is not easily accessible as it is published in doctoral theses or academic articles not intended to shape practice in classrooms (Younie and Procter, 2016). The MESH initiative estimates a comprehensive ‘Edupedia’ would reference research into tens of thousands of concepts relevant to teaching all types of learners, all concepts in all subjects, across all age groups, in different cultural and geographical settings. In Physics education alone, a search of Google scholar returns more than three million possible matches to a query about Physics education. Dr Atul Gawande (2015), in speaking about medicine, outlines the challenge we face in the 21st century in managing the knowledge available:

“The 20th C has given us a volume of knowledge and skills that is beyond what any individual can simply hold in their head, can know how to deliver on and simply do it on their own. The volume of knowledge and skills has exceeded our individual capabilities...We need systems to help us deal with complex knowledge.”

This report outline such a system, low cost, culturally respectful and sustainable.

Teacher retention: in some countries high levels of teacher turnover, particularly in poorer or rural areas, with the resulting loss of investment in training, mean that improving teacher retention rates is a priority (O’Meara (USA) 2016, Jumani (Pakistan) 2016).

Funding teacher lifelong learning: a business model is proposed drawing on initiatives which have been operating for twenty years. The strategy and accompanying practical options outlined in the following sections would lead to an international knowledge mobilisation system. Such a system would facilitate knowledge flow and harness the energies and knowledge held by teachers, researchers, aid agencies and teacher educators worldwide, minimising duplication and wastage of resources. The strategy is

underpinned by the concept and practice of ‘translational research’ (theory to practice) publishing which is well established in medicine but little understood across the education system.

The KMb system outlined here is designed to have an impact on teacher supply and quality, retention, and lifelong learning in the information age. The Full Report of the Summit (Leask and Younie et al, 2016) provides extensive detail about the system proposed.

3/ Addressing the challenges: a ‘marginal gains’ knowledge mobilisation (KMb) strategy

"In many countries, education is still far from being a knowledge industry in the sense that its own practices are not yet being transformed by knowledge about the efficacy of those practices..."

OECD Teaching and Learning International Survey 2009 p.3

Extensive OECD research finds that knowledge management is poor in the education sector. The marginal gains KMb strategy outlined here addresses this issue. The proposals provide the foundations for a knowledge mobilization strategy, which would provide to up-to-date knowledge for teachers anywhere via mobile phone where there is access to the web. The Full Report from the Summit provides details of levers for system change, the necessary structures and governance to support implementation of the KMb strategy, and examples where the ideas are working in a number of settings (Leask and Younie et al 2016).

The following two proposals outline the two core components of the strategy:

Proposal A – Governance

To realize the KMb strategy for educators as change agents to achieve the SDG4 goals, a steering group with this task needs to be mobilized behind the UNESCO aspirations and the marginal gains proposals making up the KMb strategy. A core activity of the group would be mobilizing, signposting and curating existing usable knowledge.

This would be achieved by:

- A1) Establishing a steering group with representatives from those with capacity to act as change agents; for example, educational leaders and teacher associations, an international deans in education network, teaching councils, educational research organisations and universities. Many of these groups have contributed to this paper.
- A2) Adopting low cost ways of working including online networking.

Proposal B - Creation of a quality assured open online ‘Edupedia’ written to an agreed standard⁷, with updatable summaries of existing research, written to bridge the theory practice divide. Such work is already well underway modeled through MESHGuides.

This would be achieved by:

- B1) Adopting low cost ways of working including online networking and new forms of digital publishing building on existing successes
- B2) Maximizing the value of existing intellectual capital assets including existing funded research.

More specific information about what could be achieved follows.

⁷ see Footnote 3

B1) Adopting low cost ways of working including online networking and new forms of digital publishing to:

- bring together in user summaries, index and localize existing research-based knowledge about effective teaching and subject in every concept for every subject for every age group. Wikipedia demonstrates the simplicity of this concept and the complexity of what can be achieved;
- fill in the knowledge gaps by scaling up promising research harnessing the energies of educators who are research active;
- support an international network of educators, (specifically a deans of education network) in benchmarking standards and sharing knowledge, handbooks and resources supporting initial and lifelong learning for teachers, as well as bringing together and indexing online teacher professional development and accreditation opportunities. Such professional development could include developing teachers' skills to generate, access and apply new knowledge and so become 'bottom-up' agents for context-relevant change and innovation.

Acting as change agents, educators and their professional and subject associations/networks have a wide range of practical levers for change which have a minimal cost to operate. These levers of change include:

- personal contact with student teachers and teachers through provision of initial and continuing professional learning programmes
- training in programme design which typically includes values, skills, knowledge, and attitudes
- publications: textbooks, training materials, web-based materials
- teaching content and style, including professional attitudes
- research publications: reports, articles, summaries
- idea sharing through networking, professional associations, national and international conferences and networks

UNESCO could collaborate with teacher education networks worldwide to facilitate the indexing of teacher educator and subject specialist networks to maximise low-cost dissemination opportunities as well as to mobilise expert knowledge and to support the flow of this knowledge across countries.

Having clear lines of communication between UNESCO, the OECD and teacher educator organisations is a low cost marginal gain opportunity for keeping leading educators up to date. UNESCO through GEMS monitoring, OECD through TALIS data, and the World Bank (<http://saber.worldbank.org/index.cfm>) produce information of direct relevance to educators, particularly those working with the teachers on masters and doctoral programmes who are likely to become the leaders of tomorrow which could be more widely disseminated.

B2) Maximizing the value of existing intellectual capital assets including existing published research through:

- accounting for existing intellectual capital assets. An addition to International Financial Reporting Standards may be advisable to include an Intellectual Capital register to limit the devaluing and disregarding of existing assets. This should fit alongside existing standards for valuing goodwill and other intangible assets;
- repurposing and localising existing intellectual capital assets (also proposed to UNESCO by Udenas (2014));
- modernizing research commissioning processes and bringing together research funders (governments, charities, aid agencies, corporate sponsors, philanthropists) and journal editors/publishers to support this KMb strategy;
- reframing university and national research expectations of academic staff, assessment exercise practices and academic publishing to support the KMb strategy.

Accounting for the value of existing intellectual capital assets:

“If funders invested in buildings and let them rot while building essentially the same building next door there would be outrage. Yet this wastage of resources is what is happening with ‘intangible assets’ created through the funding of research.”

Leask 2016

When research funders/aid agencies are accounting for expenditure, the value of intangible “Intellectual Capital” assets is yet to be recognised as being at least as valuable as physical assets. The “corporate professional memory” of the education sector is increasingly being put on the internet. However, online educational materials with an Intellectual Capital Value of millions of pounds are vulnerable to removal overnight as has happened in some countries and organisations so there is a need to develop new protocols to protect such investment.

Putting a monetary value on the intellectual capital of educational investments in balance sheets should support avoidance of waste, a focus on value for money and clearer comparison of choices by policy makers and funding agencies.

A lack of understanding of the true value of intangible assets by organisations has prompted the AREOPA organization to develop formulae to put a monetary value on such assets (See Table 1).

Intellectual Capital (IC) Valuation: Book Value

(Net) Book Value = (Acquisition Cost + Enhancement Cost(s)) – (Depreciation, Depletion or Amortization) +/- (Value Increase or Value Decrease)

General Accounting

Acquisition Cost or Historical Cost is the actual purchase price plus incidental costs incurred in getting the fixed asset in a condition and position ready for use, possibly supplemented with costs spend to improve, enhance or better the asset at a later stage. If the asset is self-produced: all direct costs (material, labour, expenses) and optionally an appropriate share of overhead costs (fixed, and variable) that can be assigned to the production of the asset.

$$BV = (AC + EC) - D + (VI - VD)$$

IC Accounting

The book value of IC Assets can be assessed in exactly the same way as for Financial Assets:

Historical Cost is the actual purchase price of the intangible assets which are bought (e.g. software licences, distribution rights, ...) or the costs spent to ‘build’ an IC asset, such as training costs, R&D costs, marketing costs, etc... These costs can also be subject to depreciation or value adjustments due to special incidents or evolutions. Enhancement Costs are costs to sustain the value of the IC asset without which the value of the IC asset will “vanish” over time.

$$BV_{IC} = (AC_{IC} + EC_{IC}) - D_{IC} + (VI_{IC} - VD_{IC})$$

Table 1 Intellectual Capital Valuation Calculation (Pyis, AREOPA, 2016)

Repurposing and localising existing intellectual capital assets: localisation of assets developed in other contexts is found to be more cost-effective than funding wholly new initiatives (Hennessy 2016, Payler 2016).

Specific additional value of investment could be achieved for communities, as teachers who have access to the latest trusted knowledge can provide a bridge between experts and those in their communities whose

lives could be transformed by such knowledge, e.g. on water purity, health issues, energy, agriculture, engineering, entrepreneurship and so on.

The following ideas provide an introduction to marginal gains from new ways of working in universities and by national research assessment bodies and research funders.

Modernising Research commissioning practices: Small changes in commissioning research could bring significant marginal gains to the knowledge mobilisation system. For example, research commissioners could

- require new forms of publication, which make knowledge easily available;
- prioritise synthesis and gap analysis so as to avoid unnecessary replication;
- consider value for money of localizing and repurposing existing materials;
- register outputs on the 'Edupedia'.

Reframing university and national research expectations of academic staff, assessment exercise practices and academic publishing to include

- new accountability/ promotion standards and requirements;
- new journal publishing and research processes to support cumulative research rather than proliferation of small studies;
- syntheses to build an accumulating evidence base;
- new university processes to provide access to the latest research summarized for teachers/policy makers to support lifelong learning for teachers and research-informed policy making;
- leveraging the MESHGuides⁸ approach which has been built on 30 years' research and development to provide an international standard for research summaries/digests for research users and which provides a high level starting point with existing users from 174 countries.

The above actions address teaching quality, formal teacher education and informal lifelong learning by improving teacher knowledge and access to knowledge, as well as by mobilizing existing material and human resources to further develop knowledge about effective practices.

Funding teacher lifelong learning: a business model

To engage educators worldwide as change agents does require investment for co-ordination and infrastructure. A secure funding model providing core staffing and infrastructure costs is needed for the proposals here.

Existing successful shared funding models support sustainability. For example, the European SchoolNet (EUN) is funded through small amounts of funding from 30 ministries of education with bids and grants providing funding for additional projects. This EUN model has functioned for more than 20 years, as has medicine's Cochrane Collaboration, an international network of systematic review groups with a dispersed funding model where review groups find their own funding from grants or research projects or undertake the work as part of a professional commitment to the discipline. OECD and UNESCO similarly are funded by contributions/subscriptions from member countries. Another example is that of the Wikimedia Foundation, which is the organisation responsible for Wikipedia. Infrastructure and core staffing costs are covered by sponsorship and then committed professionals fund their engagement from various additional sources such as charitable grants, research projects or as part of their professional role.

Pitching national subscription levels at the amount which a third tier government official can sign off from their department's budget may make gaining commitment by individual countries more likely as the

⁸ See Footnote 5.

expenditure can be directly linked with already agreed department priorities. Leask (2016) outlined specific funding options for a knowledge mobilisation strategy:

“There is no magic money tree [for knowledge mobilisation for education] providing long term funding for projects however good they are. Sources of funding include altruism/short term grants (educators giving time counts here), charities/philanthropists e.g. who create foundations, 'remember us in your will' initiatives, government/s (singly or working together as for EUN), advertising, selling of services, conferences, subscription. Models for resolving the UNESCO challenges will need to find funding from these sources. Having a range of funders who support an initiative seems to provide long term stability e.g. the UK Science and Education Media Centres (multiple funders: universities/charities), Cochrane Collaboration, European SchoolNet.”

The funding model for academic journals and books works on a similar model to the models above. Academics are expected to write, edit and quality assure articles as part of their paid academic work or as part of the outcome of a funded research project. Journal or open access library subscriptions then pay for the core editorial costs.

The freemium/premium services model offered by Facebook and LinkedIn provide additional examples. Subscription gives access to additional services.

If the provision of education is a ‘common good’ (UNESCO 2015a), if all children and all educators are to benefit, then ideally knowledge would be open to all; however, some services could be charged for. For example, access to statistics about the reach of university research has value in the UK in competitive bidding situations and this could be used to leverage university subscriptions.

Summary

If education is seen as an international ‘common good’ as envisaged by UNESCO (2015a) and if value is placed on Intellectual Capital and its contribution to wellbeing in communities, then it should be possible to raise funds to establish and maintain an independent, trusted, professional international benchmarking and knowledge sharing infrastructure as envisaged in this Policy Brief.

The ideas presented here provide some examples of the marginal gains which could be achieved by slightly changing existing processes, practices and attitudes. Educators involved in this Report have expressed willingness to move forward such practices in their organisations.

4/ Recommendations

UNESCO is uniquely placed to bring together leading professional education networks to collaborate on a Knowledge Mobilisation strategy for education. There is a sufficient body of evidence about how teachers use, generate and access research to support their lifelong professional learning and improve practice in classrooms to move beyond talk to action.

This Report outlines how the availability of an “Edupedia” type resource could enhance teacher quality and teacher lifelong learning worldwide, bringing low-cost global solutions to longstanding challenges and bringing a step change to the quality of teaching worldwide.

To marshal knowledge to keep every teacher up-to-date in every subject/discipline and with every aspect of pedagogy for every type of learner is a challenging task. However, with a small input from a wide range of educators globally this is achievable, as demonstrated by existing successful KMb initiatives such as the European SchoolNet (2016)⁹, the Cochrane Collaboration in medicine (2016)¹⁰, Wikipedia and the MESHGuides¹¹ research summaries for teachers initiative. All these initiatives provide long-standing examples of what can be accomplished through harnessing professional commitment and existing expertise, spreading financial risk through shared funding approaches and the collective commitment of many organisations and networks.

Recommendation 1: UNESCO adopts the proposal that UNESCO co-ordinate the creation of an ‘Edupedia’ using a ‘marginal gains’ approach to establish a sustainable knowledge mobilisation strategy for education.

Recommendation 2: That an interim steering group is established to turn the proposals in this Policy Briefing into a strategic plan which includes the gaining of funding for its implementation. Such a steering group could have representatives from networks committed to implementation, including educational leaders, teachers’ organisations, an international deans in education network, teaching councils and teacher education and subject specialist associations as well as from educational research organisations and universities.

There is clear evidence from the many initiatives referenced in this Report that educators can be change agents for UNESCO SDG4 and that a ‘marginal gains’ knowledge mobilisation strategy has the potential to provide significant impact while requiring only a small resource base.

A coordinated effort to mobilizing existing knowledge could bring a step change within three years, by 2020; so that by 2030, every teacher and every child in participating countries, could have benefited from an inclusive high quality education promoting lifelong learning¹².

Implementing these proposals could create a system which allows educators with access to the internet to keep up-to-date in pedagogy and subject content. The availability of such a system could support aid agency priorities and national and local needs and accountability measures.

⁹ focused on classroom to classroom collaboration

¹⁰ focused on systematic reviews of evidence relevant to the medical profession

¹¹ MESH=Mapping Educational Specialist knowhow

¹² While such a system needs to be focused on educators, no doubt learners, parents, adults who have missed part of their education, policy makers and research funders might also find it useful.

Another rationale for investing in teacher knowledge and teacher training through the proposals outlined above is the role the Director General of UNESCO sees education can play in educating young people to create stable and economically secure communities:

“Children’s right to education has become a security issue...The best and most enduring way to combat extremism is to combat the ignorance that nurtures it. This means integrating education into all peacebuilding processes -- right from the start. It means properly training teachers.”

Irina Bokova Director General of UNESCO 2014 p.3

A test of the success of the strategy is if by 2030 through widespread adoption of efficient ‘marginal gain’ practices at all levels of the education sector, educators can, regardless of their location,

- access summaries of the latest pedagogic and specialist subject research written to be relevant to the classroom and the local community; and
- if they so wish, find and collaborate with peers and subject specialists through online communities of practice in areas of special interest to them.

A second Teacher Education Knowledge Mobilisation Summit is being held on 3-5 May 2017 in London to plan the further development and implementation of these ideas.¹³

Teachers provide a bridge between the world’s knowledge and pupils and their communities. The lack of a knowledge management system giving teachers access to up-to-date knowledge limits the quality of education which pupils experience. The knowledge mobilisation strategy outlined here could provide an invaluable resource for teachers and learners worldwide.

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On behalf of The Association for IT in Teacher Education, MirandaNet, the international members of the Education Futures Collaboration charity, the Universities Council for the Education of Teachers and the British Educational Research Association special interest groups who contributed to the Global Teacher education Knowledge Mobilisation Summit and subsequent events to refine the ideas.

The ideas in this report were further refined at the international conference held by the International Islamic University in Islamabad, Pakistan in April 2016 and the BERA International and Comparative education event in Worcester, UK in June 2016.

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Professional associations and companies

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Non-UK schools and universities

- Australia: Melbourne University
- Belgium: Catholic Education, Flanders
- Pakistan: Bahria University and International Islamic University,
- Philippines: Southville University and Southville international school
- New Zealand: Waikato University
- USA: National Louis University, Chicago

UK schools and universities

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Global Teacher Education Knowledge Mobilisation Summit for the UNESCO Education 2030 Framework for Action

21st April 2016 National Liberal Club, Whitehall Place, London SW1A 2HE UK

Attendance list

	First name	Last name	Role	Institution
Mr.	Jonathan	Allen	Strategic Lead: Teacher Education	UCL Institute of Education
Mr.	Jon	Audain	Senior Lecturer in Primary Education (ICT/Computing)	University of Winchester
Mr.	Roger	Bartholomew	Chairman/adviser on international education	Southville University, Philippines
Mr.	Mike	Berrill	Executive Headteacher	Biddenham International School, Bedford, UK and Bedford Borough Learning Exchange (public/private school network)
Mr.	James	Bird	Senior Lecturer in Education	Oxford Brookes University
Mr.	Mike	Blamires	Director	Research Initiatives for Participation and Progress within Learning Environments
Ms.	Sanneke	Bolhuis	External Evaluator	Linpilcare - professional learning communities EU project (4 countries)
Dr.	Helen	Boulton	Reader	Nottingham Trent University
Mr.	Gary	Brace	Vice Chair	UK National Commission for UNESCO
Mr.	James	Bridge	Chief Executive	UK National Commission for UNESCO
Mrs.	Dorothy	Cassells	Expert	European Schoolnet
Mr.	Andrew	Connell	Head of Initial Teacher Education	University of Chester
Prof.	Bronwen	Cowie	Professor	WMIER, University of Waikato
Ms	Geraldine	Davies	Principal	UCL Academy, London
Dr.	Linda	Devlin	Head of International Development	Institute of Education

Mr.	Michel	Dewolfs	VP Business Development	Areopa
Dr.	Hilary	Emery	Director	Eynsham Academy Partnership
Ms.	Maria	Evans	Senior Grants Manager	Paul Hamlyn Foundation
Dr.	Jan	Georgeson	Research Fellow	University of Plymouth
Dr.	Susan	Graves	Senior Research Fellow	Edge Hill University
Prof.	Colin	Harrison	Emeritus Professor	University of Nottingham
Dr.	Chris	Harrison	Senior Lecturer in Science Education	King's College London
Prof.	Terry	Haydn	Professor of Education	University of East Anglia
Dr.	Sara	Hennessy	Reader in Teacher Development and Pedagogical Innovation	University of Cambridge
Dr.	Alison	Hramiak	Senior Lecturer	Sheffield Hallam University
Mr.	Keith	Hutchence	Ambassador	Global Coalition for Change
Mrs.	Karen	Iles	National Delivery Director	Achievement for All
Dr.	Pinky	Jain	Senior Lecturer	University of Worcester
Prof.	Nabi bux	Jumani	Professor and Dean	International Islamic University Islamabad Pakistan
Dr.	Tamim	Khan	Associate Professor	Bahria University
Dr.	Katarzyna	Kubacka	Program Officer	UNESCO
Prof.	Linda	la Velle	Associate Director (Research)	Plymouth Institute of Education
Prof.	Marilyn	Leask	Professor	De Montfort University, ITTE, BERA, Ed. Futures Collaboration charity trustee
Dr.	Anthony	Liversidge	Assistant PGCE Secondary Programme Leader	Edge Hill University
Ms.	Kay	Livingston	Professor	Glasgow University (and UK National Commission for Unesco)
Prof.	Michelle	Lowe	Director of Institute of Education	University of Wolverhampton
Mr.	Sean	McCusker	Reader	Northumbria University
Prof.	Angela	McFarlane	Chief Executive	College of Teachers
Dr.	Larissa	McLean Davies	Deputy Director Learning and Teaching	University of Melbourne
Mr.	Roger	Murphy-Turner	Education Consultant & Researcher	Lightspeed Technologies prev Director of Education, London
Ms.	Moira	Nash	Policy Adviser	UK National Commission for UNESCO
Mr.	Jonnie	Noakes	Director, Tony Little Centre for Innovation and Research in Learning	Eton College
Prof.	James	O'Meara	President	International Council on Education for Teaching
Prof.	Jane	Payler	Professor of Education (Early Years)	The Open University
Mr.	David	Perrin	Executive Director	Global Coalition For Change
Prof.	Christina	Preston	Professor of Education Innovation	MirandaNet Fellowship
Dr.	Richard	Procter	Lecturer	De Montfort University
Mr.	Ludo	Pyis	Founder and President	AREOPA
Prof.	Rosie	Raffety	Founding CEO	Academy for Innovation
Dr.	Kate	Reynolds	Dean of Institute for Education	Bath Spa University
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