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INTERNATIONAL CONFERENCE ON INNOVATIVE LEARNING ENVIRONMENTS

Banff, Alberta, Canada - 10-12 October 2011

17-18 November 2011

This room document summarises the main points and issues discussed at the International Conference on Innovative Learning Environments held in Banff, Alberta, Canada, 10-12 October 2011. It is circulated for information to the Governing Board and to inform its discussions of future directions for this project.

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**INTERNATIONAL CONFERENCE ON INNOVATIVE LEARNING ENVIRONMENTS, BANFF,
ALBERTA, CANADA, 10-12 OCTOBER 2011: CONFERENCE REPORT**

1. This report of the Banff ILE conference brings together the main questions and themes discussed. It is a short version prepared for the CERI Governing Board meeting of 17-18 November 2011 and does not include much of the detail of the presentations nor the contents of the workshops. A more substantial version is in preparation.

Conference Overview

2. The OECD/Alberta conference was the most ambitious event to date in the OECD work on Innovative Learning Environments. It drew on the earlier work on learning research and addressed in detail the on-going “innovative cases” analysis and the new work focused on the key issues of “implementation and change”. The participants reflected these ambitions as, in addition to the ILE system coordinators, experts and Secretariat, there were many different forms of expertise and interest represented: policy officials, system leaders, teacher educators, innovators, principals, foundations, and the social partners (BIAC and TUAC).

3. This international conference on Innovative Learning Environments (ILE) was co-organised by OECD’s Centre for Educational Research and Innovation (CERI) and Alberta Education, the Ministry of Education in the Canadian province of Alberta. The local hosts were the Canadian Rockies Public Schools, the Alberta school district in which the town of Banff is located. The Alberta Government is engaged in a widespread dialogue to create a long-term vision for transforming education, focusing on innovation, shared governance, inclusiveness, engagement, a shift towards building competencies, and shared responsibility and accountability for student-centred education.

4. The conference ran for 2 ½ days, beginning at 2pm on Monday 10 October 2011 and finishing at the end of Wednesday afternoon, 12 October. The discussion was led by Tony Mackay, Centre for Strategic Education, Melbourne, Australia.

5. The specific aims of the meeting were to:

- ***Examine inspiring forms of learning innovation*** being tried in different countries and contexts, addressing their innovative design and their aims and outcomes.
- ***Discuss strategies and priorities for expanding*** new forms of learning environments, both in particular localities and through wider clusters and networking, and the broader policy implications to facilitate this process.
- ***Consolidate the international network of systems, stakeholders and researchers*** building 21st century learning environments and exploring how these can be implemented at scale.
- Stemming from these, to ***provide substantial input to the OECD work on Innovative Learning Environments***, both in its analysis of “innovative cases” and in designing new work on “implementation and change”.

6. To meet these aims, the conference programme was in three main parts running from the afternoon of Monday 10 October to the end of the afternoon of Wednesday 12 October, 2011. The first part on 10 October was devoted to setting the challenge and issues for the conference seen from different

perspectives and how the ILE work responds to these issues. There were introductions from Alberta Minister and Deputy Minister, Dave Hancock and Keray Henke, Director Barbara Ischinger and project leader David Istance, and a keynote from Nelson Gonzalez of the Stupski Foundation, USA.

7. The second day up to the afternoon break was devoted to the innovations themselves and the issues that they give rise to in the different settings in which they have been implemented. It began with a presentation of the synthesis case study results (Mariana Martinez-Salgado, Vanessa Shadoian-Gersing, and Hanna Dumont) and then workshops on different innovation foci (the experience of learners and teachers; organisation and dynamics; redesigning the medium of learning; changing content). The afternoon 'transversal' workshops were on research-based innovation; learning leadership; teacher professionalism; and appropriate outcomes and evaluation. There were plenary sessions after each set of workshops.

8. The third main part of the conference addressed the issues of implementation and change more directly. It began with presentations based on innovation origins in the ILE cases and on the OECD/CERI work on the Innovation Strategy (Anne Sliwka and Stephan Vincent-Lancrin), with (on 12 October) a keynote on systemic change (Valerie Hannon, Innovation Unit, England), workshops – governance, networks, resources, policies to shape positive conditions -, and a panel to gain different stakeholder insights that included representatives of BIAC and TUAC, a foundation, and a principal. There was discussion and summing up at the end.

9. There was also a visit to Olds Community Learning Campus in the Canadian Rockies Public Schools district on Thursday 13 October.

Challenges, Issues and Agendas

10. The aim of the opening session was to lay out existing priorities and developments in learning and innovation as seen both from the host education system and from the international OECD viewpoints before moving to a keynote opening up the urgency of innovating learning systems in the 21st century, democratising deep learning across the whole generation of young people, rather than in isolated pockets, and engaging in the innovation that this implies.

Reform and innovation in Alberta

11. Minister Dave Hancock, Alberta Minister of Education, introduced reform and innovation in Alberta. Regardless of the many challenges being faced, (including global economic downturns, the movement of people across borders, and finding adequate resources for education), leaders in the education sector and business, government, parents and students must be the architects of the future as the groundwork laid now and current educational initiatives will, in great part, determine the quality of life for decades to come. In addition to core skills, students will need to be innovative and creative; they will need to have highly developed analytical skills, be problem-solvers, and able to function as effective members of a team. They will need to be productive and engaged citizens who are active members in their local communities and as world citizens. As a result, education systems have had to take on a much broader social and educational mandate.

12. For the past few decades, systems have been tinkering - trying to adapt to current realities by sustaining things more or less as they are. However, sustaining innovation in education is no longer an acceptable goal but we need to truly transform our education systems. Alberta is widely acknowledged to be one of the top K-12 education systems as shown by national, international and provincial assessments. But however positive this is, we must change because the world has changed and is continuing to change.

13. Alberta Education has undertaken several province-wide engagement initiatives – *Inspiring Education, Setting the Direction* and *Speak Out – The Alberta Student Engagement Initiative*. Our education system must embrace change, respond to the diverse needs of our students and provide high-quality, personalized and socially engaging learning opportunities. The future will be built on a foundation of ethical citizenship, engaged thinking and entrepreneurial spirit – with the goal of nurturing lifelong learning so that current and future generations can reach their full potential. And that is portrayed by our *Action Agenda* with six key themes: *First Nations, Métis and Inuit Success; Inclusion; Legislation; Teaching and Leadership; Research; and Curriculum*.

14. What transformation in education actually means and how it must evolve must be mutually understood by all stakeholders so that it becomes established at the grassroots level. Teachers are the most significant change agents in the learning process: they are key in facilitating flexible, innovative and personalized approaches to learning by creating environments that engage students in compelling, relevant and authentic work. It is our intent to create a teacher workforce that will provide not just effective instruction, but strong leadership to energize, excite and challenge students to learn. All of this is moving us toward creating innovative and authentic learning environments and activities that engage and foster individual student passions, interests and abilities.

Learning and skills – insights from the OECD

15. Barbara Ischinger, OECD Director for Education described how global drivers are pushing countries to give priority to generating high levels of knowledge and skills with attention increasingly turning to more demanding forms of “21st century competences” and yet traditional educational approaches are not adequately delivering on such demanding agendas. Hence, there is need for major endeavours of innovation. And despite the high levels of educational investment (including in educational technology) and extensive educational reforms in our different countries, it remains very difficult to make an impact on the “black box” of teaching and learning.

16. Policy makers more than ever are concerned to achieve measurable improvements in students’ educational performance and skills and the OECD has developed an impressive battery of studies and surveys to address these priorities and concerns. There are the prominent *PISA surveys*: by testing approximately half a million high school students from over 70 countries, PISA provides the most comprehensive and rigorous international assessments of learning outcomes in education. Our *2008 Teaching and Learning International Survey (TALIS)* has provided the first internationally comparative perspective on the conditions of teaching and learning, based on data from over 70,000 lower-secondary teachers and school principals in the 24 countries that took part, with a new TALIS round in 2013. Also in 2013 there will be the first results of the *Programme for International Assessment of Adult Competencies (PIAAC)*, permitting the comparison of skills levels and the opportunities that people have to use them, and how all of this translates into better economic and social outcomes.

17. So, the OECD’s focus on education reaches far beyond the sector itself. Faced with the global challenge of unemployment, there is need for partnerships between the worlds of work and education and strategy to link skills and jobs effectively. Hence, the OECD Skills Strategy, which will promote mechanisms to match skills demand and skills supply and help countries identify investments in skills that will produce the greatest benefits.

The importance of educational research

18. Deputy Alberta Minister, Keray Henke, addressed the key role of educational research in informing educational transformation. It provides a context and a platform for identifying and debating competing ideas – a platform that will underpin the proposition that the intentional and systemic

development of a culture that supports innovation, experimentation and creativity is essential. It is essential particularly as these are the qualities that we expect students to demonstrate.

19. Studies show that a research-based learning approach increases student engagement as well as students' higher-order cognitive skills and personal competencies in all subject areas – from languages to science to fine arts. It brings new attitudes of objectivity, curiosity and critical outlook in students so providing them with skills to participate in an increasingly complex world. For teachers in training, the identification and analysis of new research findings equips them with new problem-solving and leadership skills. And for educators as a whole, educational research forms the basis for continuous professional growth essential to maintain the excellence of opportunity and achievement. To take this further; *knowledge transfer* must permeate all aspects of our education system.

20. The Alberta *Action on Research* agenda has co-developed an overarching Education Research Framework using a generative process with diverse partners - government, key education stakeholders, research organizations and post-secondary institutions. The Framework is designed to: enhance education research and innovation capacity for all stakeholders in a responsive and ethical manner; build upon the culture of research excellence in Alberta; support improvement of student engagement and learning; and bridge education research in Alberta with educators, students, parents, academia, partners, and stakeholders. Embracing the research, and infusing innovative practices and teaching methodology into schools, is essential to changing educational opportunities and to enabling better evidence-based decision-making in educational policy and programming.

The learning innovation agenda

21. Nelson Gonzalez, of the Stupski Foundation, USA, presented his keynote in terms of opportunities, approaches, principles, and implications. Among the *opportunities* are the pressures of the global context that calls for innovation in learning through the demands and developments such as the Arab Spring movement. It includes growing consensus around new definitions of learning that provide a critical platform, definitions that include the importance of student agency, deeper learning, higher-order thinking, personalization, the important role of technology, and of flexibility in use of time/space. All argue for the need to develop *adaptive design capacity* at all levels of education systems.

22. As regards *approach*, scaling ILEs must tap into intrinsic motivation, passion, and desire – agency for students, teachers, administrators; it must balance accountability with capacity. The Partnership for Next Generation Learning in the US is a relevant model - a change mechanism with key design principles:

- *Empowered*: supportive policy environments that provide permission, cover, conditions, resources, and incentives;
- *Practical*: student-centered, focused on concrete problems of practice, rapid feedback loops, and which are co-designed;
- *Systemic*: the student-to-state through-line to account for all enablers and barriers involved in going to scale; and
- *Unique governance arrangements*: the micro, meso, macro levels aligned through such mechanisms as memoranda of understanding, shared data and assessments, and common networks.

23. *For the principles* for learning environments, these will embrace deeper learning and learner agency and be based on the best research and evidence available. They will need to embrace the micro instructional core such as Learning Labs and appropriate R&D methods such as quick feedback, continuous improvement, design capacity, collective efficacy, collective team work, and the right culture. There will need to be innovation at all five levels – the *learner* (e.g. colour/poverty), *resources* (especially technology), *content* (agency), *teachers* (e.g. through team collaborative work), *organization* (e.g. R&D networks). We should aim for scale through networks at the meso level (such as the Learning Lab Network); and appropriate State/federal policies at the macro level surfacing from practice in inversion of the traditional policy-making process.

24. *On implications*, Gonzalez recommended focusing on implementation and change in terms of the substantive (especially the definition of learning involving agency and the affective, and assessment and accountability processes relevant to innovation); the procedural (R&D, building adaptive capacity, and improvement science, and network creation and management), and scale (through appropriate policy and movement-building). The major question he identified for the ILE work is: how to develop “a network of networks” to help do this?

The OECD/CERI International “Innovative Learning Environments” (ILE) Project

25. David Istance made the first presentation of the CERI project “Innovative Learning Environments, beginning with its aims and how the ILE work has been designed to respond to and illuminate them. He introduced the “Learning Research” conclusions and the frameworks underlying the ‘Innovative Cases’ work. He dwelt particularly on the models and frameworks underlying the ILE approach to the micro and meso levels, and how these can be translated into an approach to grasping “Implementation and Change” – the next strand of the ILE project.

26. Mariana Martinez-Salgado presented the criteria defining an innovative learning environment in ILE work and the countries, states, and organisations actively participating in it. She summarised the state of play in the “innovative cases” strand of the work, with a main pool of 120+ cases gathered so far, aiming eventually at 160+, and from among these, 35 case studies (the “Inventory”). This is providing more detailed analysis in four main areas: the aims and history of the ILE; the structured patterns and characteristics of the learning environments; the nature of the learning taking place within them; and their impact and effectiveness. These will all be gathered into an on-line knowledge base and various shorter tools and resources, as well as a full OECD publication in 2012.

27. Vanessa Shadoian-Gersing reminded the conference of the main dimensions underpinning the ILE concept of “learning environments” – Learners, Learning facilitators, Content, Resources, and Organisation – and how this framework permits questions such as whether particular innovations are addressing mainly one, two, or all of the dimensions. She looked in more depth at one of these dimensions - learning facilitation or teaching – and one dimension of innovation within it (team teaching). There are several approaches to team-teaching, ranging from the standard to the more innovative, wherein teachers use this approach to build flexibility (e.g., through different groupings and multidisciplinary approaches) and engage learners and foster pedagogical advantages in their classroom. Furthermore, different sub-dimensions do not exist in isolation but are intertwined, and their strength lies in how they are built upon one another. She illustrated this with ILE case study examples and argued how it will be important to capture this complexity.

28. Hanna Dumont, (Tuebingen University and OECD consultant) addressed “*The Nature of Learning*” in the *ILE Case Studies*, taking the core principles identified from the 2010 ILE publication of that title in turn: learner-centredness, the social dimension of learning, recognising the importance of emotions, addressing individual differences, appropriate assessment, and horizontal connectedness. She

found strong confirmation of these principles in the different ILE case studies, which she illustrated through examples and cases. Drawing the different insights together, she observed that most of the innovative practices address several of these principles at the same time, rather than specifically addressing only one of them. Many of the practices also go hand in hand with a more open and flexible use of space and time. And all the case studies report high levels of teacher collaboration and commitment to professional learning, i.e. the principles apply to the teachers and not only the students.

Facets and Dimensions of Innovative Learning Environments - Workshops

29. The aim of this set of workshops was to address the dimensions of innovation in learning environments through specific concrete approaches and examples, while in all cases exploring their implications for holistic reorganisation.

30. Workshop 1: What different ILEs mean for the learner and for the learning professionals – changing the learning experience.

31. This session heard a presentation by Judy Halbert and Linda Kaser, Network of Performance Based Schools, Vancouver Island University, British Columbia, Canada. It was chaired by Valerie Hannon, Innovation Unit, England. The questions guiding this session were :

- How important is it to involve learners in new ways of learning? What promising experiences can you report?
- What factors are critical in engaging learners in innovative forms of learning? Why?
- What about teachers and other learning professionals – how far is changing their professional experience of teaching and collaboration altering (and improving) their professional lives? What support do they need?

Workshop 2: Reorganising learning environments – organisation and dynamics

32. This session heard a presentation by Anders Palm and Peter Skoglof, Swedish National Agency for Education, Stockholm, Sweden; and by Erich Ramseier, University of Teacher Education, Berne, Switzerland. (TBC); it was chaired by David Istance (OECD). The questions helping to guide this session were:

- What are some of the key examples you have where learning was significantly reorganised to positive effect?
- Is it possible to break with old organisational moulds and habits? How able are schools and other learning environments to sustain the change? What types of capacity building might be useful?
- How possible is it to refocus the organisation of learning while bringing along other stakeholders (such as parents) who may not be convinced?

Workshop 3: Integrating technology's potential for redesigning the medium of learning

33. The session heard a presentation by Jennifer Groff, consultant, Cambridge, USA, and it was chaired by Dean Lindquist, Assistant Deputy Minister, Learning Supports & Information Management, Alberta Education, Canada. The questions guiding this session were:

- How many of you have positive examples of the integration of technology and digital media significantly changing the learning experience of a whole school/cluster of schools? What about non-school examples aimed at specific learners or communities?
- How best can the key stakeholders and players – including teachers and leaders – engage with the positive potential for technology to improve learning?
- Is a ‘tech-rich’ learning environment a costly option and unrealistic for all but the most affluent? Or can the innovative tech-rich examples be equally accessible to less privileged communities and schools? How?

Workshop 4: ILEs for new knowledge, competences and capacities – changing content

34. The session heard a presentation from Ellen Hambrook, (Assistant Deputy Minister, Education Program Standards and Assessment, Alberta Education) on Framework for Student Learning: Competencies for Engaged Thinkers and Ethical Citizens with an Entrepreneurial Spirit. It was chaired by Gertraud Benke, University of Klagenfurt, Austria. Questions helping to guide the discussion were:

- What are some of the most exciting examples of innovative learning environments transforming the content of the learning? What inspires those transformations of content?
- What is involved in ensuring that deep-seated change in learning content takes place rather than just new rhetoric or cosmetics?
- How far are curriculum and evaluation policies a barrier or brake on such transformations or are they neutral or even positive towards them?

Key Transversal Issues arising for Innovative Learning Environments

35. The aim of this session was to examine a number of the *transversal issues* that are critical to the implementation of 21st century learning environments, and which call for substantial clarification of concepts and aims as well as necessary organisational drive and political will. Consideration of options extended beyond specific cases prepared for the ILE project.

Workshop 1: The ILE set of research-based principles by which to design and organise learning environments – an unattainable ideal or an unavoidable requirement?

36. This workshop heard a presentation by Marlene Scardamalia, Institute for Knowledge Innovation & Technology (IKIT), University of Toronto, Canada; it was chaired by Hanna Dumont, University of Tuebingen, Germany. The questions helping to guide this session were:

- Is the ILE set of *research-based principles* by which to design and organise learning environments an unattainable ideal or an unavoidable requirement of 21st century education?
- How can these principles and similar other approaches be made most accessible to those who need them? What steps might be taken to operationalise these principles and approaches?
- What experiences do we already have and what more can be done to embed research-based innovation in practice? How can we encourage bi-directional learning and knowledge transfer (so that research informs innovation in practice and vice versa)? Is it possible for learners themselves to be full players in these processes?

Workshop 2: Defining and building “learning leadership”

37. The session heard a presentation by Jan Robertson, Griffith University, New Zealand; it was chaired by Tony Mackay, Centre for Strategic Education (CSE), Melbourne, Australia. The questions helping to guide the discussion were:

- As we are focusing on reorganising learning environments rather than managing institutions in general, how useful is it to define “learning leadership” in more precise terms, and how might that be done?
- What are some of the key ingredients of such forms of leadership? What capacities are needed and how can they be fostered? What experience do workshop participants already have of well-developed ‘learning leadership’?
- What can be done to ensure that learning leadership and the wider management priorities and practices of institutions are enabled, so far as possible, to work together? Are there any special considerations when the learning takes place across more than one setting – e.g. partly in a school and partly outside in communities, enterprises or other settings?

Workshop 3: Teacher professionalism for 21st century learning environments

38. The session heard a presentation by John Bangs, representing the Trade Union Advisory Committee (TUAC); it was chaired by Carol McLean, Assistant Deputy Minister, People and Research, Alberta Education, Canada. The questions helping to guide the discussion were:

- What are the key characteristics of teacher professionalism appropriate for 21st century learning environments? Are the traditional vehicles for teacher professionalism sufficient for 21st century learning environments, or are other forms more appropriate?
- How well are these being developed at present and what more needs to be done? How?
- How much is this about developing individual teacher competences and expertise and how much is it about collective capacity building within learning environments or clusters? How well do these two objectives sit together?

Workshop 4: How appropriately to judge the success of ILEs - outcomes?

39. The workshop heard a presentation from Maria Langworthy, Microsoft Innovative Teaching and Learning (ITL), Partners in Learning Program, Redmond, USA; it was chaired by Per Tronsmo, Norwegian Directorate for Education and Training, Oslo, Norway. The questions helping to guide the discussion were:

- What does “work” mean? What outcomes are appropriate by which to judge effectiveness or success in the case of innovative learning environments? What examples do we have?
- What methodologies are appropriate for clarifying and evaluating such outcomes? Will they be different from more conventional forms of evaluation?
- What specific means and knowledge do we have of how to foster deep learning and 21st century competences, and how can these be applied in assessing any new approach to learning?

- How might innovative learning environments usefully learn from these types of outcomes?

Implementation and Change

40. The session on *Making Innovations Happen – Insights from ILE Cases and Wider OECD Analysis* - formed the bridge between the issues discussed on Days 2 and 3 of the conference. It brought together the experiences reported in the case studies on how the ILEs began and were sustained over time and it presented key insights from the more general OECD innovation analysis.

41. In *Launching and Sustaining ILEs: the insights from the ILE case studies*, Anne Sliwka (Heidelberg University of Education) drew on examples and insights from the “Inventory” cases available at the time in terms of three main themes of escalating scale in terms of making and sustaining change: Starting the change, Transforming entire schools, and Going to scale. She looked at different kinds of drivers, leadership, and innovation models behind some of the ILE examples as they initiated the original innovations. She presented different partnership and stakeholder engagements in sustaining the innovations, and the networking and transformation processes in building on these. She stressed that the generalisability of her findings is constrained both by the cases being examined in the ILE project and by the state of completion of the reports. Already, however, it is clear that there are valuable insights emerging from the rich examples being compiled with the ILE work.

42. Stéphan Vincent-Lancrin, (OECD/CERI) presented *Insights from the OECD “Innovation Strategy” analysis of education systems – motors and brakes*. He presented forms of stimulation of innovation through science-driven change and business-driven change (distinguishing tool builders, new knowledge generation, and the application or scaling up of evidence-based practices). He presented practitioner-driven and user-driven innovation (via such means as new school models, project developers, and inexpensive tool builders (OER, etc.)). His analysis of inhibitors or brakes on innovation was in terms of insufficient supply of and demand for innovation, and inadequate knowledge management. The action points seen as holding the potential to unleash innovation were developed around a) the evaluation and measurement of innovation in education; b) fostering communities of practice across the sector and through organisational learning.

Governance and System Challenges

43. The aim of this substantial item – with keynote, plenary discussion, workshops, and conclusions – was to address the challenges of systemic growth of 21st century learning environments. It is to identify promising models and examples and to address outstanding inhibiting factors. It is asking how current reform priorities and approaches match the directions identified through the discussions.

44. *Designing Innovative Systems: is ‘moving to scale’ our challenge?* was the title of the keynote address by Valerie Hannon, (Innovation Unit, England). She argued that the words and concepts matter in the endeavour to innovate, and that the language of ‘implementation’ and ‘going to scale/scaling up’ are mechanistic, engineering metaphors that distort the essentially organic process of spreading new practice. At the same time, she argued that it should not be assumed that the case for transformation is well understood and accepted, and that there is a political imperative to continue to address the improvement agenda even when developing the conditions and strategies for transformation.

45. In this regards, she contrasted the views of two eminent Canadians on educational reform and innovation. Ben Levin is one arguing for improving existing school systems by focusing on better outcomes for more students within relatively traditional metrics, and that undue focus on innovation and transformation can distract from what is both possible and desirable. Michael Fullan, on the other hand, described many of the traditional reform instruments as the “wrong drivers” - accountability pressures,

individual teacher and leadership quality approaches, technology, and fragmented strategies. Instead, the “right” drivers will include many of the approaches associated with innovation: the focus on the learning-instruction-assessment nexus; social capital to build the profession; pedagogy matching technology, and developing systemic synergies. The “S-shaped curves” of pathways under “raised goals” vs “different goals” are helpful in understanding the issues at stake, though they present the dilemma of the initial drop in outcomes often associated with the initial jump from the first curved pathway to the second.

46. She presented and applied to real cases concepts, frameworks, and tools that had been developed through the Global Educational Leadership Programme. The overall approach is one of “confronting reality” and “awakening possibilities” feeding into creating a “living vision” that then informs “emergent strategy” and applying a larger “roadmap” tool towards educational transformation. Within this tool is the 2 X 2 matrix for situating innovation and directions ahead that combines formal vs non-formal and established vs new learning providers; this leads to four quadrants - improving, supplementing, re-inventing and new paradigms. Superimposed on this are the two key threads of “learning ownership” and “digital technologies”.

47. In conclusion, Valerie Hannon suggested that the improvement agenda must continue even when the aim is transformation. However, multiplying examples of ILEs while helpful is insufficient. Planning for innovation will entail a range of skills and approaches – social, political, and educational – though it is an open question how far transformation can remain a planned process. In any case, this will not be down to governments alone – but they can provide the right platforms to expedite it.

Workshop 1: Systems and modes of governance appropriate for fostering 21st century learning environments

48. The workshop heard a presentation from Kim Bater, Canadian Rockies Public Schools District, Banff, Canada, and it was chaired by Rod Allen, Superintendent, British Columbia, Canada. Questions helping to guide the discussion were:

- Is a policy role of creating positive climates for innovative learning a meaningful and realistic task or is it too diffuse? Do we have any positive examples or is this more implicit than explicit?
- How well developed is the capacity already existing in your different systems and contexts to reorganise learning and to work across sites in clusters and groups? What can be done to foster this capacity and who are the principal players who can make this come about?
- How easily does this supportive policy role sit with other objectives and accountability requirements? Are more resources a prerequisite of influencing positive change?

Workshop 2: Networks and clusters – going to scale through a well-developed “meso” level

49. The workshop heard a presentation from Patricia Wastiau, European Schoolnet, Brussels, Belgium, and the session was chaired by Lone Lonne Christiansen, Norwegian Directorate for Education and Training, Oslo, Norway. Questions helping to guide the discussion were:

- How useful is it to think about the “meso” level—that is, the level of learning networks and communities of practice across environments?
- What are some of the most promising examples of networks, clusters and communities of practice that have led to the growth of innovative learning environments? How easily can these be sustained?

- How can the “meso” level be developed as the route to growing innovative learning environments? What does success depend on? What about policy strategies that allow the “meso” level to flourish and allow these to percolate across systems?

Workshop 3: Resource challenges – in times and contexts of limited resources, how to ensure that quality 21st century learning environments do not depend on high resourcing?

50. The workshop heard a presentation from José Carlos Rocha Silva and Isidro Sánchez Ulloa, National Council for Educational Development (CONAFE), Mexico and by Susanne Owen, Department of Education and Children’s Services, South Australia, who also chaired the session. Questions helping to guide the discussion were:

- What types of resources are required for effective, innovative learning environments? Are there various combinations of resources (beyond funding) that can help to enable these? What about sharing of different types of resources, including through community and business partnerships, etc?
- Can a climate of limited resources be a good breeding ground for new innovations in learning? What interesting example do we have? How to ensure that innovation continues, even when there is less of a “necessity”?
- How can we be more resourceful in innovating at the micro and meso levels in times of limited resources, while also communicating to the macro level that increased funding resources may be necessary to sustain and/or diffuse innovation? Are there any examples of this?

Workshop 4: Influencing climates, building capacities, and creating conducive conditions – appropriate policies?

51. The workshop heard a presentation on Educational Transformation by Michael Walter, Assistant Deputy Minister, Alberta Education, and the session was chaired by Elvira Vacirca, Department of Education and Early Childhood Development, Melbourne, Victoria, Australia. Questions helping to guide the workshop discussion were:

- Is it fruitful to focus on system-level policy as primarily creating the capacity and conditions for innovative learning change at the micro and meso levels? How does this fit with other policy priorities?
- What promising examples are there of what can be done through policy to build capacity or to create conducive climates or incentives for learning leadership or learning-focused communities of practice? What can be done at the centre to encourage learning-focused organisational routines? What can be done to remove the barriers and obstacles?
- How well have these examples worked? How do we know?

52. To bring together the different themes and discussion threads, there was a panel on the final afternoon composed of different stakeholders offering their reflections and responding to questions. The panel was made up of: John Bangs representing TUAC, Greg Butler (Microsoft Education Leaders Strategy), Charles Fadel representing BIAC, and Julie Taylor (a college principal from South Australia).

Summary remarks

53. David Istance in his final summing up presented some of the underlying threads that had emerged during the conference.

54. *'Tinkering is not the same thing as transformation'* refers to a contrast that featured in the discussion at various points. It was made at the very beginning of the conference when Alberta Minister Hancock called for transformation not just tinkering, and which Deputy Minister Henke qualified as 'informed transformation'. Similarly, there were the different cases made for incremental versus radical change, and the related question of how far this is about change in fundamental functions or instead in organisations and structures (new environments for learning might arguably be needed to create effective educational environments not as rejection of longstanding goals such as cultural transmission or social cohesion). In this regard, different responses arose in the conference on how far the case for change is widely shared: several participants warned against assuming that the rationales of reformers and innovators are shared by others in education and the wider community.

55. *Evidence* arose repeatedly as a topic – the “proof points” as described by Nelson Gonzalez in the first keynote. This covered the need to provide evidence and to clarify what counts as evidence that an innovation is promising and has potential for wider emulation or adaptation. One participant asked in response to the call for ‘proof points’: ‘how do we know when change is an improvement?’

56. One relevant issue then is the “S-shaped curve” described by Valerie Hannon in the second keynote – the pattern that innovation initially may lead to a fall in measured outcomes on certain indicators prior to embedding and later take-off – how then to interpret that initial disappointing phase and with what confidence to expect imminent positive improvement? (Appropriate outcomes is a theme proposed for more detailed scrutiny through a small analytical group in the next phase of the ILE project.)

57. *Time* was a recurring theme but in very diverse ways, e.g. the need to understand time as part of the innovative learning environments and of trajectories, the time involved in making change occur, as well as the urgency of transformation. *Risk* – risk-taking and risk aversion – was another theme discussed throughout the conference.

58. *Alignment* is an aim that calls for better understanding as, in the words of one participant, “education is more zig-zag than symmetry” – in this case, referring to the alignment between different levels and functions of education in changing learning. This issue has been identified as a critical one in the proposals for the next stages of ILE work, especially the question of how to better align the learning and the institutional environments, in which dealing with the ‘messy asymmetry’ may be more through encouraging certain routines and processes rather than through structured solutions.

59. This asymmetry may also be viewed as a reality of complexity, part of which is inherent in the *partnerships and networking* developing as part of contemporary learning environments and the ‘meso’ level (and so emphasised in the project proposals). Moving from closed to more open systems necessarily introduces “zig-zag rather than symmetry”.

60. *Teachers and learning professionals* were discussed repeatedly throughout the conference: issues of professional identity and professional learning, of practice and capacity, and of engaging practitioners fully in innovation and leadership. It is a theme that CERI will be discussing inter alia through the ILE project in partnership with Education International and Cambridge University in a seminar on the teaching profession in February 2012.

61. *Student agency* provided the complementary focus to that on teachers that frequently emerged in the conference discussions; as with the discussion of incremental vs radical change, it elicited diverse

viewpoints (in particular the extent to which the primacy of student agency should be a desirable or a defining feature in personalised, innovative learning environments).

62. The conference addressed fundamental questions too about the *nature of knowledge* and the diversity of context and beliefs, while recognising the global pressures at work. Knowledge vs skills came up especially in the question of how far the focus on skills (as in 21st century skills) introduces a fragmented, disaggregated perspective that runs counter to knowledge creation and the promotion of student agency. At the same time, the ever-present factor of assessment may well push for operational itemisation even if it may be counter to the original spirit of the reform or innovation.

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