



Internal use
583205

Application for a Grant

Identification						
This page will be made available to selection committee members and external assessors.						
Funding opportunity Insight Grants						
Joint or special initiative						
Application title A comparative investigation of pedagogical possibilities of digital tools for family and school early literacy education						
Applicant family name Laidlaw			Applicant given name Linda		Initials	
Org. code 1480111	Full name of applicant's organization and department University of Alberta Elementary Education					
Org. code 1480111	Full name of administrative organization and department University of Alberta Elementary Education					
Scholar type Regular <input checked="" type="radio"/> New <input type="radio"/>			Research Group 435-5			
If New, specify category 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/>						
Does your proposal require a multidisciplinary evaluation?					Yes <input type="radio"/> No <input checked="" type="radio"/>	
Is this a research-creation project?					Yes <input type="radio"/> No <input checked="" type="radio"/>	
Does your proposal involve human beings as research subjects? If "Yes", consult the <i>Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans</i> and submit your proposal to your organization's Research Ethics Board.					Yes <input checked="" type="radio"/> No <input type="radio"/>	
Does your proposal involve activity that requires a permit, licence, or approval under any federal statute; or physical interaction with the environment? If 'Yes', complete Appendices A and B.					Yes <input type="radio"/> No <input checked="" type="radio"/>	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total funds requested from SSHRC	<u>44,210</u>	<u>53,121</u>	<u>88,412</u>	<u>47,956</u>	<u>0</u>	<u>233,699</u>



Family name, Given name

Laidlaw, Linda

Participants

List names of your team members (co-applicants and collaborators) who will take part in the intellectual direction of the research. Do not include assistants, students or consultants.

Role

Co-applicant

Collaborator

Family name

Blackmore

Given name

Jill

Initials

J.A.

Org. code

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Full organization name

Deakin University

Department/Division name

Faculty of Education

Role

Co-applicant

Collaborator

Family name

O'Mara

Given name

Joanne

Initials

A

Org. code

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Full organization name

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Department/Division name

Faculty of Education

Role

Co-applicant

Collaborator

Family name

Sumara

Given name

Dennis

Initials

J.

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Full organization name

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Department/Division name

Faculty of Education

Role

Co-applicant

Collaborator

Family name

Given name

Initials

Org. code

Full organization name

Department/Division name

Role

Co-applicant

Collaborator

Family name

Given name

Initials

Org. code

Full organization name

Department/Division name



Research Activity

The information provided in this section refers to your research proposal.

Keywords

List keywords that best describe your proposed research or research activity. Separate keywords with a semicolon.

literacy; technology; innovation; touch screen technologies; mobile devices; elementary education

Priority Areas - Priority area(s) most relevant to your proposal.

1. Digital Economy

Disciplines - Indicate and rank up to 3 disciplines that best correspond to your activity.

Rank	Code	Discipline	If "Other", specify
1	61208	Computer Assisted Instruction and Learning	
2	61238	Reading and Writing	
3	61246	Teaching Methods, Pedagogy	

Areas of Research

Indicate and rank up to 3 areas of research related to your proposal.

Rank	Code	Area
1	140	Education
2	242	Information Technologies
3	280	Literacy

Temporal Periods

If applicable, indicate up to 2 historical periods covered by your proposal.

From	To
<p>Year</p> <p>_____ BC AD</p> <p>_____ <input type="radio"/> <input type="radio"/></p> <p>_____ <input type="radio"/> <input type="radio"/></p>	<p>Year</p> <p>_____ BC AD</p> <p>_____ <input type="radio"/> <input type="radio"/></p> <p>_____ <input type="radio"/> <input type="radio"/></p>



Family name, Given name

Laidlaw, Linda

Research Activity (cont'd)

Geographical Regions

If applicable, indicate and rank up to 3 geographical regions covered by or related to your proposal. Duplicate entries are not permitted.

Rank	Code	Region
1		
2		
3		

Countries

If applicable, indicate and rank up to 5 countries covered by or related to your proposal. Duplicate entries are not permitted.

Rank	Code	Country	Prov./ State
1			
2			
3			
4			
5			

Statement of Alignment
Priority Area: Digital Economies

As elaborated in our description, our proposed research focuses on digital literacy practices and experiences. The proposed research aims to investigate and examine shifts in digital literacy practices and to examine factors that might impede digital literacy development as well as support innovation and educational change through the project. As the OECD (2011) outlines, in the digital economy, schools have the daunting task of preparing students to deal with ever more rapid change, suggesting that adaptation and openness to change will be foundational to economic and national success.

Our proposed research addresses several of the potential lines of inquiry in the Digital Economies Priority Area. Our project is significantly grounded in addressing two of the potential lines of inquiry: Building Digital Skills for Tomorrow; and Research in the Digital Era. As it relates to the area of Education, we will also address the first line of inquiry: Capacity to Innovate Using Digital Technologies.

In relation to outcomes for the Digital Economies Priority Area, our research and related activities address several of the following expected outcomes.

1. “deepen our understanding of: the evolving digital economy, its opportunities, challenge and impacts on society ... and individuals”
Our research aims to deepen this understanding through examination of the particular context of digital literacy education for teachers and students and their families.
2. Our proposed research will also investigate “the role of digital technologies and media” centrally in the project, in examining how students and teachers understand these in relation to literacy practice within school and at home.
3. The outcome “how to position Canada in a global context” will be addressed within the international collaboration within our study, through comparative analyses of the differences and similarities uncovered between the two countries (Canada and Australia).
4. As a part of our knowledge mobilization plan we expect that the results of this research will “inform policy and actions through evidence, analysis, and insights on key issues and problems.” Within our proposed research we intend to communicate our ongoing results with our various ministries of education with the intention of informing policy in relation to digital technologies and mandated curricula.
5. Our KMP will also “promote engagement in research and sustained relationships with policy-makers, practitioners, professional associations, community organizations and end users of research.” Our proposed research gathers data across multiple educational stakeholders and intends to develop ongoing relationships with teachers, educational leaders, education officials, and parent/community participants.
6. Finally, our research and KMP activities intend to emphasize “the creation and use of digitized content ... as a method of research inquiry.” We intend to use online structures, video, and social media both as information ‘delivery method’ and as offering a mode of communication with our participants and audience of professional educators. Given our interest in digital literacies, we expect to develop new theory and practices in observing and documenting our uses of digital content and processes throughout the project.



Family name, Given name

Laidlaw, Linda

Response to Previous Critiques - maximum one page

Applicants may, if they wish, address criticisms and suggestions offered by adjudication committees and external assessors who have reviewed previous applications.

Empty response area for addressing criticisms and suggestions.



Family name, Given name

Laidlaw, Linda

Summary of Proposal

The summary of your research proposal should indicate clearly the problem or issue to be addressed, the potential contribution of the research both in terms of the advancement of knowledge and of the wider social benefit, etc.

The OECD (2011) describes that the role of schools is to prepare students "for jobs that have not yet been created, to use technologies that have not yet been invented and to solve economic and social challenges that we do not yet know will arise" (p. 5). How have the widespread shifts in the everyday use of digital media in the family altered the nature of literacy and literature for children and teachers in schools? Which children are benefiting from shifts in digital technology and who is not? How do family literacy practices using digital tools inform students' literacy dispositions? How might literacy teaching and learning adapt to address 21st century modes of communication? The proposed research aims to investigate shifts in digital literacy practices in school and home in sites in Canada and Australia and to examine factors that might impede and/or facilitate digital literacy development.

Mobile electronic devices are increasingly occupying a place in contemporary childhood experiences. Educational stakeholders are looking to the promise of touch screen devices (e.g. iPods, phones, tablets), particularly within literacy education, yet digital technologies are also regarded with apprehension by teachers and parents alike. Paradoxically, the 2009 PISA digital reading assessment found a relationship between students' computer use at home and stronger scores cross-nationally, while increased computer use at school was linked to lower scores (OECD, 2011). This project, through comparative national studies, addresses this counterintuitive finding by investigating the different digital literacy practices in students' homes and schools. It builds on a SSHRC IDG investigating implementation of innovative approaches in early primary literacy instruction using iPads and other digital tools. This new project investigates the challenges and possibilities presented by the use of digital tools in home and school in order to develop new pedagogical approaches to classroom work in Canada and Australia.

The proposed project aims to:

- investigate and examine shifts in digital literacy dispositions in relation to digital media and 'new literacies' that learners acquire through family literacy practices;
- examine the reception of digital literacy practice by teachers, leaders and students;
- examine and consider factors that may contribute to a "digital divide" in relation to barriers for learners and teachers;
- consider which change strategies and conditions can be mobilized to encourage literacy teachers to adopt and sustain innovative practice;
- develop, document and evaluate teaching and research practices emerging from co-researching with teachers/practitioners within the research.

The project takes a qualitative approach to data collection and analysis, using theoretical frames from complexity thinking, and incorporating constructs and frames from complementary 'new literacies' research. It is conceived as a four-year plan, involving four interconnected research activities: contextual analyses which will examine documents and artifacts from policy makers and educational stakeholders, and popular accounts of digital media in literacy education; teacher and stakeholder interviews to better understand contexts, challenges and opportunities in both countries; teacher focus groups to support new approaches; face-to-face and online symposia using social media tools.

It is expected that the proposed research will yield important insights regarding innovative curriculum development for working with digital media and 21st century literacy education. The results of this research will be made available to educators and academics through articles, workshops, curriculum materials and digital texts in an accessible online environment.

A comparative investigation of pedagogical possibilities of digital tools for family and school early literacy education

DESCRIPTION OF ACTIVITY

Introduction

The proposed research represents the second phase of an international comparative study examining digital literacy practices and experiences in relation to literacy teaching and learning at the elementary school level. Contemporary students exist in a rapidly changing world demanding ever-increasing abilities to utilize new technological tools and innovations (Carrington & Marsh, 2008; Knobel & Lankshear, 2010; Lankshear & Knobel, 2003a, 2003b; Merchant, 2007b). The repertoire of literacy practices needed to engage with contemporary texts continues to increase exponentially, transforming reading and other engagements with text (Coiro, Knobel, Lankshear & Leu, 2008; OECD, 2011). Alberta (Alberta Education, 2012a, 2012b), the state of Victoria, Australia (DEEWR, 2012; DEECD, 2009), and children's families have invested considerably in new learning technologies over the past decade. While there has been considerable research exploring the impact of learning technologies such as computers on pedagogies, learning, and teacher professional development, there has been less focus on hand-held technologies. These devices offer greater mobility and convergence around multimodality and use of social media and are in widespread use by students outside of school, even in the preschool years. This project seeks to remedy the lack of empirical research to test assumptions regarding how these tools could be used pedagogically, and with what effect, with students in early years of schooling. It does so in different national contexts as policy imperatives have occurred earlier in Victoria, Australia than in Alberta, and comparative studies indicate how differing policy and professional development frames can enable or discourage more innovative use of digital technologies in schools. Our proposed study will investigate the challenges and possibilities presented by new digital tools (e.g. iPad/iPod/touch screen devices) within literacy education and develop new approaches to classroom work, examining how different systems, supports and policies facilitate the 'take up' of digital technologies in Canada and Australia, analyzing commonalities, differences and intersections between the two countries.

Objectives of the Project

The proposed project aims to:

- investigate and examine shifts in digital literacy practice in relation to digital media and 'new literacies' that learners are now bringing to school;
- to examine the reception (adopt, adapt, resist) of digital literacy practice by teachers, leaders and students;
- examine and consider factors that may contribute to a "digital divide" in relation to barriers for learners and teachers (e.g. resources, gender, "cultural capital", socio-cultural and socio-economic influences);
- to consider which change strategies and conditions can be mobilized to encourage literacy teachers to adopt and sustain innovative practice;
- develop, document and evaluate teaching and research practices emerging from co-researching with teachers/practitioners within this inquiry.

Within this project we ask the following questions:

How have the widespread shifts in the everyday use of digital media altered the nature of literacy and literature for children and teachers in schools?

Which children are benefiting from shifts in digital technology and who is not?

How do family literacy practices using digital tools inform students' literacy dispositions?

How might literacy teaching and learning adapt to address 21st century modes of communication?

Context

While computers and mobile electronic devices are increasingly occupying a place in contemporary

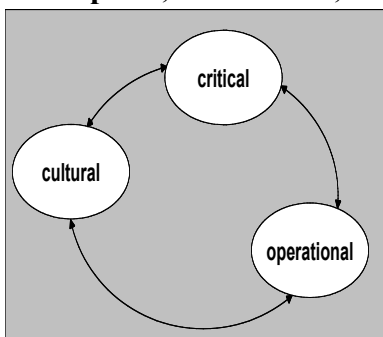
childhood experiences (Coiro et al., 2008; Lankshear & Knobel, 2003b; O'Mara & Laidlaw, 2011), many schooling practices are still firmly entrenched in the 20th century and fail to acknowledge the new “textual dispositions” (Kress, 2005, 2003) of children today. As digital media theorists suggest, new digital tools invite both “hope and fear” (Gee & Hayes, 2011), consistent with literacy innovations across history. Luke (2007) suggests that children need to be educated as “global cosmopolitan citizens” who are growing up processing multiple digital information sources in their time outside of school. As a result, children are developing abilities that may be less familiar to the adults around them (see, e.g., Carr, 2010). Further, as Luke and Luke (2001) suggest, education systems have tended to “delay and sublimate the emergence of new educational paradigms” around new forms of textual and literacy practice, focusing on print literacy crises (see, e.g., BC Ministry of Education, 2012; Government of Alberta, 2009). Schools must mediate and negotiate complex entangled environments that are all at once enabling and dis-abling of innovation, in terms of policy, location, socio-economics, organizational cultures, pedagogical practices, the social contexts of students, and family-community relations. Although digital media is increasing as a social and educational phenomenon and is a growing focus and concern for Canada and other OECD countries (e.g., Luke, 2010; Government of Alberta, 2009; Government of Alberta 2010) there is a relatively little research that addresses the development of pedagogical approaches to digital literacies in the area of Canadian K-6 education. However, there is considerable evidence that children are frequently entering elementary school classrooms as experienced technology users within their home environments (Burnett, 2009; Davidson, 2009; Luke, 2007; Marsh, 2006, 2004; Merchant, 2007a, 2007b; O'Mara & Laidlaw, 2011; Zevenbergen, 2007). There is also international acknowledgement that reading in digital modes requires new strategies and emphases, through the OECD PISA (Program for International Student Assessment) inclusion of a digital reading assessment. Curiously, international results of the 2009 PISA digital reading assessment found a relationship between students' computer use at *home* and stronger scores, while increased computer use at *school* was linked to lower scores (OECD, 2011). Such results compel a closer look at the digital literacy practices and contexts as they are occurring in students' homes and school contexts. Australia, the partner site in our proposed inquiry, ranked highly in the 2009 digital reading results. Canadian students participated in the survey portion, but international rankings did not include Canadian digital reading results—clearly, there is a need for further study.

The proposed inquiry follows from a two-year inquiry developed as a SSHRC IDG, *Literacy Learning in Playful Spaces: Using Multimodal Strategies to Develop Narrative with Young Learners*, which investigated implementation of innovative approaches using iPads and other digital tools within early primary literacy instruction, as a means to facilitate the creation, modification and use of children's own multimodal texts. Within this smaller-scale project which included Canadian and Australian data, preliminary findings indicate that, even with access to ‘new tools’, technologies and resources and involvement of highly competent teachers, attempts to change practices in connection with digital literacy often encountered unexpected barriers and difficulties that functioned to impede innovation and change. Such “paradigmatic tensions” are also echoed in an Australian study (Lynch & Redpath, 2012) and suggest that further investigation, as proposed in this IG inquiry, is needed.

The proposed research draws on the research programs and expertise of the team (addressed in more detail in the section “Research team, Previous Output and Student Training”), bringing together a collective interest in digital technologies, complex change processes in education, and teacher professional development. Laidlaw's prior projects offer theoretical and contextual background that underlies the proposed study. Her early work, culminating in *Reinventing Curriculum: A Complex Perspective on Literacy and Writing* (2005) examines the complex relationships among children's language and literacy practices in their homes, learning and teaching experiences in schools, and children's experiences of the technology of print through books and writing (see also Laidlaw, 2001).

Laidlaw's earlier (2004 – 2007) SSHRC funded research, in examining the experiences of children with diverse cultural identities and family compositions, highlights that while diversity is often stereotyped or resisted in school settings, it can also compel creative action and new possibilities for both teachers and learners (Laidlaw, 2010; Laidlaw, 2006), and demonstrates that digital media can provide new opportunities for children who are socioculturally diverse. O'Mara (co-I SSHRC IDG, *Literacy Learning in Playful Spaces*) brings to the project a strong Australian national reputation in the field of educational research, working in the area of digital literacy, as a result of her research in two Australian Research Council (ARC) funded projects (*Literacy Learning in the 21st Century: Learning through Computer Games*, 2007-2011; *Serious Play: Using Digital Games in School to Promote Literacy and Learning in the 21st Century*, 2011-2014) and resultant publications (e.g. O'Mara, 2008; Beavis & O'Mara, 2011, 2010; O'Mara & Lees, 2011; O'Mara & Richards, 2011). O'Mara also has a strong history of working the area of educational innovation with collaborator Blackmore, as a co-author of a funded project, *The Connections between Learning Spaces and Learning Outcomes: People and Learning Places* in which Blackmore was the lead author (Blackmore, Bateman, O'Mara & Loughlin, 2010). Blackmore has a long-standing international reputation as a scholar, and an extensive history of educational projects. Her reputation was recently recognized by her university, with the prestigious appointment as an "Alfred Deakin Professor". Blackmore's current work focuses on global restructuring and how it articulates locally in relation to organizational change and the production of teacher, academic and student identities (e.g. Blackmore, 2011a, 2011b, 2010). The dominant research question throughout her work is: "What do changing relations between structures, organizations and identities mean for more equitable education systems and a more equitable society?" She currently holds three Australian Research Council (ARC) grants and two category 2 grants to support this work, which involve teams across different faculties and universities. Her early nationwide study of Australian technology usage, *Effective Use of Information and Communication Technology (ICT) to Enhance Learning for Disadvantaged School Students* (Blackmore, Hardcastle & Bamblett, 2002) provides valuable background and benchmarks for the proposed research. Sumara (co-I) has extensive background in adolescents', adults' and seniors' digital literacy and close reading practices (SSHRC-funded project 2005-2008), preservice and beginning teachers' discursive practices and the influences of such practices on their teaching and learning approaches (PI, SSHRC SRG), action research (Carson & Sumara, 1997; Davis & Sumara, 2009a), and complexity thinking (Davis & Sumara, 2006; Davis, Sumara & Luce-Kapler, 2008). Sumara's ongoing research program will inform methodology and theoretical approaches within the proposed research, and from his perspective as Dean of a Canadian Faculty of Education, he will be making connections between the emerging results of the proposed research and how Canadian preservice and inservice teacher education programs and Alberta university-school district partnership programs can respond to new digital literacy demands.

Conceptual, Theoretical, and Methodological Frames



A major problem in theorizing literacy is the tendency to limit what is understood as literacy to written language and print text, rather than approaching literacy practices in terms of thinking and cognition (Green, 2012) as well as social practice (Gee, 1996; Rowsell, Prinsloo & Zhang, 2012). Green's '3D' model of literacy pedagogy and practice conceptualizes literacy as working across the three practical dimensions of 'cultural-discursive', 'operational-technical' and 'critical-reflexive' (Green, 1988, 2012) and has widespread usage throughout the Australian context, including applications into digital literacy practices (e.g. Durrant & Green, 2000). These three dimensions of literacy practice work

together simultaneously rather than sequentially or developmentally and the model can be used pedagogically, conceptually and rhetorically (Beavis & Green, 2012). In the proposed project, Green's 3D model will be used in multiple ways: to frame interviews and conversations with teachers, parents and educational stakeholders; as a conceptual tool to frame our analyses; and as a rhetorical tool to drive knowledge mobilization strategies. As Australian study (see Lankshear & Snyder, with Green, 2000) has found that, predominantly, classroom practice has focused on 'operational-technical' dimensions (e.g. encoding/decoding of text; how to operate digital devices or applications), we are curious to see whether our research in Canadian settings, and Australian settings a decade later, produce different results. Following from Green's model, as a holistic and multidimensional conceptual tool for considering digital literacy engagements, our project will be informed by complexity science, as an emerging domain within educational theory and research (e.g., Davis, Sumara & Luce-Kapler, 2008; Davis & Sumara, 2006; Davis & Sumara, 1999; Doll, 1993; Osberg & Biesta, 2010; Osberg, 2009; Phelps & Hase, 2003; Uptis, 2004) which offers challenges to linear, reductive, and mechanistic frames for understanding systems and other phenomena. Complexity suggests that human and cultural systems, such as those of schools and classrooms, might be better understood as adaptive, emergent, dynamic and self-organizing, coming from earlier work across diverse fields of study and arising from empirical science within the "hard science" branch of complexity that follows mathematics and physics (see Capra, 1996; Cohen & Stewart, 1994; Johnson, 2001; Kauffman, 1995; Stewart, 1998). Following the work of Davis and Sumara (co-I, and a leader in research in the area of complexity and education) (2010) we view our approach as consistent with the holistic "soft" branch of complexity science, more typical of the domain as it has been taken up by health professionals, philosophers, psychologists and educators. Complexity theory has been used to develop new practices and support innovation in technology development (Johnson, 2010); the development of digital networks and technologies has been frequently addressed as presenting examples of complexity thinking (e.g., Johnson, 1997, 2006, 2010; Mainzer, 2004; Rheingold, 2000). We see complexity science as offering useful metaphors and "new language" (Rorty, 1999) for thinking about learning and teaching, providing concepts and structures that contrast with more linear and mechanist approaches and offering useful tools for qualitative methodology in our work with the 'subsystems' of our participants and their contexts as well as the larger systems of education and technology.

The Proposed Research

We anticipate that this four-year phase of the proposed project will involve four interconnected primary research activities, and include three research sites, to include data from Australia (Melbourne area/Victoria State) and Western Canada (Alberta and British Columbia). Within the three larger geographic locations, specific potential research sites and groups in each category (teachers, parents/children, administrators and other educational stakeholders) have begun to be identified, through the prior work of the investigators and their contacts within their educational contexts, aiming for a balance in socioeconomic background, diversity, and geographical considerations (e.g. urban/rural contexts). The project will use qualitative methods informed by complexity (Davis & Sumara, 2009a) as well as action research approaches in our work with educators (e.g. Carson & Sumara, 1997; Kemmis & McTaggart, 2005). A four-year trajectory is required in order to track patterns and shifts in emerging digital literacy technologies, complete data collection and to communicate results and analyses across our geographically distant sites.

1. Contextual analyses

A preliminary focus of the study will involve analyses of existing conceptions and practices relating to two areas: 1) understandings of digital literacy as they are typically represented, described, and enacted in schools; and 2) understandings of digital literacy as they are typically represented, described, and enacted in local, global, and 'popular' cultures, focusing on the relationship to Canadian and Australian

contexts. These analyses will include artifacts, structures and practices that both explicitly and implicitly represent and develop such assumptions and will include documents from the public domain, such as curriculum texts and various Ministry of Education/government publications in Canadian and Australian contexts, and relevant publications from popular media and government agencies (e.g. Stats Can, Australian Bureau of Statistics). Other materials, such as classroom instructional materials and professional texts for teaching, will be solicited directly from educators participating in the project. While the majority of this work will occur in Year 1, continued examination of such materials will also take place in Years 2 – 4 of the project so that materials remain current, as we expect shifts in perspectives to take place over the life of the project, given the rapid evolution of digital tools and practices. These analyses will also aim to contextualize the study in terms of the broader cultural, political and economic considerations that may frame such conceptions.

2. Digital literacy stakeholder interviews (teachers, parents/children, administrators, education leaders)
We plan to collect ‘baseline’ interview data across the various stakeholders in the Australian and Canadian sites, beginning in Year 1, with follow up interviews of available participants occurring in Year 3 of the project. These qualitative interviews are intended to provide information about participants’ conceptions and experiences of digital literacy practice, their responses to shifting digital contexts (e.g. anxiety, excitement, competence etc.), and the barriers and support structures they have experienced. We expect to interview 50 teachers, 50 parent/child dyads, and 24 individuals working in official administrative/education roles.

3. Teacher/practitioner focus group seminars

Regular focus group meetings will be organized for teacher/educator groups in each site, beginning in September 2013 in Year 1 of the project and continuing to the end of Year 3. Each researcher, with the assistance of doctoral students and post doctoral support, will work with several groups over the trajectory of the study, so that by the end of Year 3 we will have collectively worked with 10 teacher groups, across multiple geographic locations (e.g. an urban and a rural setting in Victoria, AU; urban and rural groups in AB; parallel groups in BC). The main purpose of these seminars will be to create conditions where teachers will be able to openly discuss, analyze, and interpret classroom strategies related to working with digital literacy practices, examine different applications and digital literacy tools, as well as offering new pedagogical strategies and approaches for consideration. Such interpretations will be elicited and supported in ways that are consistent research methods which invite participants to engage with materials (e.g. discussion papers, digital literacy tools and sources, articles, digital texts) while juxtaposing these with participants’ accounts and representations of past and current experience (see, e.g., Laidlaw & Sumara, 2000; Richardson, 1997; Richardson & St. Pierre, 2005). We also plan to experiment with a variety of digital research communication tools to encourage conversations among groups involved in the project (e.g. wikis, blogs, podcasts, Skype/Face Time), as successfully developed in the earlier SSHRC IDG project. Each group will have an online ‘location’ for asynchronous communication in between meetings and for follow up after the initial series of face-to-face meetings. We anticipate that each group will meet between 6 – 10 times in person, with online communication occurring between and beyond these meetings. In Year 3 of the study, the emphasis within the seminars will shift toward more formal representations of emergent insights, aimed at communication with professional teaching and education communities. In collaboration with participants, strategies will be developed for creating documents, presentations, or other representations to be shared in selected public contexts (e.g., articles for professional teachers’ magazines, presentations at regional conferences, the creation of a website and digital downloads of demonstration lessons), and it is anticipated that participants will contribute to conference presentations in Year 3 – 4 of the project.

4. Digital and ‘face-to-face’ project symposia

In each year of the project, following Year 1, we plan to organize a symposium for the purpose of

further developing and consolidating the work across the sites and among the team, and in the aim of both informal and formal information sharing and knowledge mobilization. To save costs, the symposia in Years 2 and 4 will occur online, while Year 3 is planned as a face-to-face symposium that will take place at the University of Calgary (and for which we will seek external funding—see budget justification). In addition to the researchers and teachers/educators involved in the project, we plan to invite school administrators, Ministry of Education representatives, and university representatives interested in furthering the aims of this international project, as well as providing offerings for parent/community members. We will include a videoconference component in the Year 3 symposium in order to include research participants and other groups who may not be able to attend directly. While part of our aim for the symposia is to share ongoing and emerging results of the research, we see these events as significant opportunities for data gathering, following from what O'Mara, Blackmore and Laidlaw have developed as a model via their CREFI (Centre for Research in Educational Futures and Innovation) Invited Symposium (December, 2012): *Digital literacy in the early years: Old questions, new tools, shifting spatialised practices*, as an event aimed at exploring questions and 'working ideas' to further inform research.

Data Collection and Interpretation

Data collected will include: contextual artifacts and documents; audio and video recordings and transcripts of interviews; field-notes, transcripts and microanalyses of video data of field-notes, transcripts and participant created projects from the teacher/practitioner seminars; vodcasts and transcripts of symposia; digital artifacts of websites and online/digital products of seminars and symposia. We plan to use several digital tools in relation to managing data (InqScribe for video transcription and initial analysis; nVivo to assist with coding large scale interview data), but recognize that 'manual' analysis methods will play a central role in analysis and interpretation. Following methods described by qualitative researchers (Denzin & Lincoln, 2005; Lather, 2007; Richardson, 1997; Richardson & St. Pierre, 2005; van Manen, 1990), the proposed research aims to collect a variety of representations of digital literacy conceptions and practice, including teacher participants' pedagogical practices and interpretations of their teaching and learning structures, and then to subject these multiple data to pedagogical and conceptual analysis. As Lather and Smithies (1997) suggest, our own complicity and positioning as researchers involved in this project must also be subject to scrutiny and be open to response from research participants (see also, Davis & Sumara, 1999).

We envision this project as working in a recursive and interconnected manner, and working in micro- and macro-directions, moving back and forth between the particular pedagogical and conceptual experiences and perspectives of participants and investigators, and the collective experiences that will emerge within and across the focus groups at each site, as well as looking at the ideological realm of discourse and cultural knowledge around teaching, learning and schooling practices as they relate to digital literacy. In sum, we plan for our research activities and practices to closely represent the structures of digital literacy practice, with activities and events developed as interconnected, participatory, and distributed. As Davis and Sumara (2006) state, gaining an understanding of social systems such as schools requires "considering all-at-once, the many layers of dynamic nested activity that are constantly at play" (p. 28), and the knowledge that such "organizational/organismic layers" may not be neatly separate. Following the work of researchers such as van Manen (1990), Carson and Sumara (1997) and Kemmis and McTaggart (2005) we recognize the process of our involvements at the research sites and with the educators, as well as the outcomes of these involvements, as constituting the research effort.

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KNOWLEDGE MOBILIZATION PLAN

KMP methods for the project, categorized below in relation to areas of focus, will incorporate multidirectional flow of information where possible. We intend to seek out publication opportunities using open access sources and digital tools that will best present the ongoing work and results of the project and that will be accessible to a wider audience across sectors.

Within the Research Sites: Information about the project will be communicated through a website dedicated to the project as well as within secure online sites for informal, ongoing and fluid communication processes, attached to each of the teacher/practitioner seminar groups. While many of the digital products of such communications will be informal aspects of the research process and data, we anticipate that a number of these products will also be shared more publicly and within academic venues. Educators participating in the project will be encouraged to collaborate with the investigators on written and digital media and other research products including contributions within and outside academic communities. The project will also experiment with using social media (e.g. Twitter, blogs) for informal communications, and we plan to use online document and media sharing (e.g. Google docs, Dropbox) to facilitate access among international and Canadian investigators and participants.

Outside Academic Communities: Several main groups outside of academic contexts are expected to be the audience for this research: pre-service and practicing teachers, educational administration and policy-makers, and other communities (e.g. alternative education programs, parent associations). For teachers, this research will be communicated through articles for professional journals (online and print), presentations and workshops within regional and national professional communities, and online presentations through electronic discussion groups and forums. Information about the research will be disseminated to the larger professional teaching audience in the form of newsletter reports, local association conference sessions, and a series of videos accessible through the project website. We will endeavor to bring the results of this work to the attention of policy-makers and legislators in both countries by continuing to participate on curriculum committees, communicating results to school districts and professional development coordinators, and communicating directly with our respective teachers' associations.

Within Academic Communities: Two main products of the research are anticipated. One of these will be a scholarly text developed around reports of the interpretations of the study. The second will be a book intended for educators and parents, as an open-access online document. In preparation for these culminating products, we will be writing articles for publication consideration in refereed journals in language and literacy education (e.g. *English Teaching: Practice and Critique*; *Journal of Literacy Research*; *Language and Literacy: A Canadian E-journal*; *Journal of Early Childhood Literacy*; *The Australian Journal of Language and Literacy*). We also expect to report on our research process in journals dedicated to methods in educational research, such as *Qualitative Studies in Education*. We will attend various conferences to report on the research as it unfolds, including, for e.g., American Educational Research Association (AERA), World Educational Research Association (WERA), Canadian Society for Studies in Education (CSSE), and national Australian conferences such as Australian Association for Research in Education (AARE). Our digital and face-to-face symposia will aim to share emerging results across sectors.

Schedule and Purpose: The contributions within the research sites will begin in Year 1, to facilitate partnership building, ongoing communication, and informal information sharing, with plans to begin more formal publications and sharing in Years 2 - 4 of the project. We expect to share ongoing information and interpretations of the study in articles and conference presentations starting in Year 2. In Year 3, we will initiate the development of the professional text, and in Year 4 we will complete the academic text. While it is not possible to entirely predict the trajectory of knowledge mobilization activities, we anticipate that the work of this project will be of interest across multiple sectors and that it will provide information that will help to shift professional practice and educational policy.



Family name, Given name

Laidlaw, Linda

Expected Outcomes

Elaborate on the potential benefits and/or outcomes of your proposed research and/or related activities.

Scholarly Benefits

Indicate and rank up to 3 scholarly benefits relevant to your proposal.

Rank	Benefit	If "Other", specify
1	Knowledge creation/intellectual outcomes	
2	Enhanced curriculum	
3	Enhanced research collaboration	

Social Benefits

Indicate and rank up to 3 social benefits relevant to your proposal.

Rank	Benefit	If "Other", specify
1	Technological outcomes	
2	Enhanced professional practice	
3	Enhanced policy	

Audiences

Indicate and rank up to 5 potential target audiences relevant to your proposal.

Rank	Audience	If "Other", specify
1	Practitioners/professional associations	
2	Students	
3	Academic sector/peers, including scholarly associations	
4	International audiences	
5	General public	



Family name, Given name

Laidlaw, Linda

Expected Outcomes Summary

Describe the potential benefits/outcomes (e.g., evolution, effects, potential learning, implications) that could emerge from the proposed research and/or other partnership activities.

This project has a range of scholarly and social benefits designed to reach a large audience.

Within the proposed project, through our knowledge creation aims, we will:

- investigate the paradoxical PISA finding that students' higher levels of computer use at home was linked to stronger scores on the digital assessment, while increased computer use at school was linked to lower scores cross-nationally (OECD, 2011), through our own comparative study;
- create publications that document the shifts in digital literacy dispositions in relation to digital media and 'new literacies' that learners are acquiring through family literacy practices;
- develop enhanced curriculum materials and new pedagogical strategies;
- develop guidelines for teachers and parents to foster literacy skills at home and school;
- develop a framework and theory of innovation and curricular change;
- enhance the already established international partnership between the Australian and Canadian researchers.

Within the proposed project, in outcomes addressing social benefit, we will:

- include the development of new research methods which more fully exploit the opportunities provided by digital texts and media;
- develop new methods for integrating technology into schools;
- use digital and online forms and formats to enhance and provide better access to audiences with an interest in this work;
- develop new technological methods of working with teachers as research collaborators within their professional areas of expertise;
- use findings from the investigation into who is benefiting from shifts in digital technology and who is not to create policy suggestions for enhanced social inclusion in the digital realm.

Within the proposed research, we expect to work with the following audiences:

- teachers who are directly involved in the project and who will participate extensively;
- interview participants (teachers, parents, educational leaders and stakeholders);
- the digital audience of practitioners, members of professional associations, academics and the public, who will be able to access the project outcomes, curriculum materials and pedagogical strategies via the project website and open access publications;
- graduate students and undergraduate pre-service teachers who will benefit from enhanced curriculum (e.g. courses, access to website materials) and opportunities for collaboration developed through the research partnership;
- professional and academic sectors. Results will be communicated from this project to the professional teaching community and the education, early childhood and literacy studies research communities through presentations at national and international conferences, papers submitted to national and international refereed and professional journals, and reports to Ministries of Education, Education departments and professional teaching organizations;
- international audiences who will be reached through presentations at international conferences and digital texts through the website;
- families and the general public, through the publication of a set of guidelines for teachers and parents to foster early literacy skills at home and school, and short digital video clips and podcasts addressing results of the study to be published online with the aim of being accessible and available to a wide audience.

RESEARCH TEAM, PREVIOUS OUTPUT AND STUDENT TRAINING

A. Description of the Research Team

The Primary Investigator, Collaborators and Co-Investigator, Linda Laidlaw, Jill Blackmore, Joanne O'Mara, and Dennis Sumara have developed their research programs around questions of learning and teaching, with particular emphases on innovative curriculum practice and design. Laidlaw, O'Mara and Sumara have focused their work on processes and practices of language, literacy, and literary experience, and Blackmore and Sumara have ongoing work in the area of leadership, school reform and policy. The collective and individual skills of the team provide strengths in addressing the multiple aims of the project and in their capacity to successfully carry out the proposed research at multiple sites. Collectively, the team has considerable experience in successful grant completion, and we have all worked collaboratively with at least one or more members of the team in prior projects. Because of our past histories in collaborating with one another at a distance we plan to continue to use the methods and modes of communication and collaboration that have worked effectively for us in the past (e.g. Face Time, Skype, Google docs for synchronous writing, secure document sharing etc.). All team members have extensive connections with school communities and parent groups within their respective geographical areas, and Sumara and Laidlaw both have previously worked with a number of teacher groups/schools in BC. Both Blackmore and Sumara have extensive prior contacts with ministry of education stakeholders and leaders in policy and curriculum in their respective geographies. Laidlaw, Blackmore, O'Mara, and Sumara will share in the responsibility for shaping the intellectual framework of the proposed research. All interpretations, preparation of reports, and communication of results to the academic, professional, and other communities will be co-directed by team members. Major administrative decisions required during the proposed project will also be shared. Other shared responsibilities will be the investigation and development of the various pedagogical approaches used in the focus groups, planning and development of data collection, and the continued interpretation and analysis of insights emerging from these. The team will share responsibilities for communicating the results of this research to academic and professional research communities and the general public. They will also share responsibility for presenting results to practicing teachers, curriculum developers, parent groups, and to provincial (Alberta, British Columbia), state (Australia), national and international bodies concerned with teaching and learning. Each team member will take responsibility for working with the graduate research assistant connected to their site, with Laidlaw working with both of the Alberta GRAs (University of Alberta, University of Calgary) with assistance from Sumara at the University of Calgary, and Blackmore and O'Mara sharing responsibility for the Australian GRA. Laidlaw and Sumara will share in responsibility in working with the Post Doctoral researcher, and as they have done for their GRA in the IDG project, O'Mara and Blackmore will assist the Post Doc in applying for an Endeavour Fellowship to cover travel and research costs to engage in several months of work at the Deakin site. Laidlaw will coordinate administrative aspects of the project, including communications with focus groups and participants in Canada. Blackmore and O'Mara will coordinate Australian administration, focus groups and participants. O'Mara will take leadership in developing accessible online digital texts and in overseeing the specific digital and electronic media that will be investigated within the project. Blackmore and Sumara will oversee policy considerations for each country, with Blackmore also contributing expertise in the area of learning environments and school reform. Laidlaw will be able to devote 100% of her research time on the proposed project, as her existing IDG project will be completed. O'Mara will devote 50% of her research time to the proposed project, with the other 50% of her time going to her Australian ARC computer games project. O'Mara and Blackmore are developing an Australian Research Council proposal to mirror the Canadian project, to enable further allotment of

their research time towards the project. As Blackmore is completing ARC and DEWR funded work in Year 1, she will contribute 10% of her time in the first year of the project and 20% in Years 2 – 4. Blackmore's current position, as the Director of the Centre for Research in Educational Futures and Innovation (CREFI), is solely focused on research and graduate supervision; while she will initially contribute less of her time, her expertise in managing multiple, complex research projects and her high level of productivity while working on several projects will be extremely valuable to the proposed research. Sumara is a Canadian Dean of Education and he will be able to devote 10% of his time to the project (his prior SSHRC project is completed). Laidlaw will be responsible for 50% of the project, Blackmore and O'Mara will each be responsible for 20% of the project, and Sumara responsible for 10%.

B. Description of Previous and Ongoing Research Results

Laidlaw and O'Mara's current research (SSHRC IDG to be completed, June 2013) *Literacy Learning in Playful Spaces*, investigates the implementation of innovative approaches in early primary literacy instruction, using iPads, iPods and other digital tools. Through the data and early findings of this smaller scale project, results suggest that home and school literacy practices in relation to digital literacies are presenting intriguing shifts and unfamiliar trends. Echoing the PISA results (OECD, 2011), we have found that, for some children, their home experiences may support enhanced opportunities to work as creators, designers and experts, but at school their technology experiences are more 'domesticated' where they work in the role of passive responders to various applications (O'Mara & Laidlaw, 2011; Laidlaw, O'Mara, Makovichuk & Wong, 2012). Our study also found that the teachers in our project who were attempting innovative digital literacy projects in their classrooms often encountered institutional, material, and functional barriers in attempting work with 'new literacies' and mobile devices. Significant to the proposed project, our questions arising from the IDG project results have led us to a realization that literacy research needs to take a look at the broader contexts for digital literacy and to explore the multiple perspectives of all stakeholders: teachers, students and their families, administration and educational leaders.

Laidlaw's program of research has been situated in the field of early literacy education, and has been primarily concerned with examining relationships between home, school and identity and their effects on literacy development and on the emergence of children's senses of personal, social, and cultural understanding (e.g., Laidlaw, 2010, 2005, 2004b). Laidlaw has continued to work with Sumara over the past ten years to explore complexity thinking as a method for understanding curriculum (e.g., Laidlaw, 2004a, 2001, Laidlaw & Sumara, 2000; Sumara, Davis & Laidlaw, 2011). Their prior inquiry, *Changing Families, Changing Schools* (SRG - Laidlaw, PI; Sumara, Co-I) investigated the role of diversity within educational structures (Laidlaw, 2006, 2005; Sumara, 2006), and they expect to examine how diversity impacts the results of the proposed research.

Blackmore has an extensive research career and her contributions have been recognized by her university in being awarded the title of Alfred Deakin Professor, the highest honour bestowed by Deakin University. She is currently appointed in the position of Director of the Centre for Research in Educational Futures and Innovation in the School of Education, Faculty of Arts and Education, since 2009. The Centre aims to become the preeminent centre for educational research in the Asia Pacific region and is committed to theoretically grounded and practice oriented research that informs educational policy and practice. Blackmore has an established international reputation in the area of leadership, educational reform and organizational change, and currently is PI on three Australian Research Council grants. One of these projects investigates leadership (*Leadership in the Entrepreneurial University*), and another researches collaboration with disadvantaged communities

(*How Interagency Collaboration Supports Resilient Students, Families, and Schools in Disadvantaged Communities*). Within the ARC projects, it is important to note that Blackmore is working with teams and that the ARC system also funds research management costs, so her workload as “Chief Investigator” in the projects is different than what would be true of an equivalent number of SSHRC grants. Blackmore has two category two projects, working with government Departments of Education, one investigating innovative learning environments, following from ARC projects investigating school redesign and leadership. A prior project investigated the effective use of information and communication technology to enhance learning for disadvantaged school students (Blackmore, Hardcastle & Bamblett, 2002) and she is interested in returning to this topic to examine how technological change may have shifted conditions in Australia, and to examine how it is impacting students and families in Canada (see also, for example, her work on parent/school relations, Blackmore & Hutchinson, 2010). Her strong record of publication, including her work as a series editor for Routledge with Pat Thomson (University of Nottingham) and Helen Gunter (University of Manchester) on *Critical Theories and Educational Leadership* is expected to contribute valuable expertise to our KMP in the development of the academic text as well as the other expected publications. Blackmore’s own publications on leadership and reform in education are widely recognized, particularly *Performing and Re-forming Leaders: Gender, Educational Restructuring and Organisational Change* (with Judyth Sachs, 2007, SUNY Press) which won the Critics Choice Award from the American Educational Studies Association in the year it was published.

O’Mara’s research program investigates innovative pedagogy and practices and the spatial and temporal dimensions of teachers’ work. She has a particular interest in the areas of new literacies studies and has engaged in an ongoing series of research projects in the areas of digital games, emergent literacies and new textual practices. In addition to her work with Laidlaw on their SSHRC IDG, mentioned above, O’Mara’s current Australian Research Council Linkage Project, *Serious Play: Using digital games in school to promote literacy and learning in the twenty-first century*, has already been recognized as an innovative project by The Office of Research at Griffith University (lead institution) which selected the project to represent Griffith at the ARC 2011 Major Grants Announcement held in Parliament House in Canberra in November, 2011. The ARC invited the project to join its exhibit at the *Innovation in Australia: People Making the Difference* showcase in Brisbane on December 7, 2011. O’Mara has been a co-investigator on two projects led by Blackmore and funded by the Victorian Department for Education and Early Childhood Development (DEECD) researching innovative learning environments. The first was an extensive literature review and report, with an annotated bibliography of over 700 articles, chapters and reports. Due to the wide recognition of this report, the team was contracted for a larger investigation into innovative learning environments in Victorian schools and contracted to prepare a report for the OECD based upon the findings. O’Mara has been a co-investigator on 6 funded research projects since 2007, including an additional international collaboration (with the National Institute of Education, Singapore) on the Australian Research Council Linkage grant.

Sumara’s research program has focused on literacy education, reading practice and literary study, diversity, and complexity science within the field of literacy education. His early research with a high school teacher-research group focused on development of new interpretive practices to read postmodern literary texts (Sumara, 2002). Recent work has investigated adolescents’, adults’ and seniors’ digital literacy practices (SSHRC SRG), preservice and beginning teachers’ discursive practices and the influences of such practices on their teaching and learning approaches (PI, SSHRC SRG), and complexity thinking (Davis & Sumara, 2006; Davis, Sumara & Luce-Kapler, 2008). The proposed research will also build from Sumara’s work in relation to structures of schooling and teacher development (e.g. Davis, Sumara & Luce-Kapler, 2008; Sumara, Davis & Iftody, 2008) and his recent work on transformation within school systems (Davis, B., Sumara, D., & D’Amour, L., 2012; Davis &

Sumara, 2009b; Sumara, 2011; Sumara & Davis, 2012).

C. Description of Proposed Student Training Strategies

Several doctoral students who have been involved in previous projects with team members at Deakin and at the University of Alberta and who are doing thesis work in the area of digital literacies and early literacy have expressed interest in the proposed project. At the University of Calgary, a doctoral student will be selected from several who also have an interest in digital literacies and experience in elementary education. All GRAs will have doctoral research interests connected to the proposed project, as well as prior professional teaching experience. It is difficult for universities to recruit highly skilled tenure-stream faculty members in early literacy education and this project provides an excellent opportunity to provide research training for three candidates. All members of the team have provided ongoing mentorship and training to graduate student research assistants through previous projects in Canada and Australia and we anticipate that this project will provide additional opportunities for student researchers to gain from the collective expertise of the investigators at an academic, international and professional level. As detailed in the proposal, a range of research methods will be undertaken in this project and we expect to provide mentorship and training for GRAs within all research activities. By participating in the project, the GRAs will be able to develop many of the academic and technical competencies necessary to function as effective researchers. The GRAs will also be involved in ongoing discussion of the conceptual and theoretical frameworks being used to structure the study and to interpret results, providing them with the opportunity to broaden understandings of particular areas of scholarly inquiry and research in curriculum. The GRAs will be trained in a range of research skills associated with the different stages and elements of the proposed research, including: assisting with contextual analyses; engaging in a portion of the interviews; planning and implementing data collection within several of the focus groups; work with coding programs as well as 'human' analysis of data; the preparation of academic and professional papers, workshops and presentations for academic and professional audiences; and the development of web and multi-media based forms of research and reporting. As in our other research studies it is anticipated that all GRAs will work as collaborative members of the team and will be provided with additional responsibilities and training as they gain experience with the project. It is expected that one of the doctoral students will be eligible to apply for the Postdoctoral research position in Year 3 of the proposed research. As in our prior projects, we also aim for the research work to be beneficial to teacher/practitioner participants and to the larger field of the teaching profession. It is expected that within each respective teacher/practitioner focus group, collaboration, mentorship, and research opportunities will be realized for the participants who wish to take a further professional development role within the project. As has frequently occurred in our other projects, we expect that some of the teacher participants will follow their participation in the project by enrolling in one of our graduate programs and pursuing their own research projects.



Family name, Given name

Laidlaw, Linda

Funds Requested from SSHRC

For each budget year, estimate as accurately as possible the research costs that you are asking SSHRC to fund through a grant. For each Personnel costs category, enter the number of individuals to be hired and specify the total amount required. For each of the other categories, enter the total amount required.

Personnel costs	Year 1		Year 2		Year 3		Year 4		Year 5	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Student salaries and benefits/Stipends										
Undergraduate										
Masters										
Doctorate	3	36,747	3	38,223	3	26,496	3	27,558	0	0
Non-student salaries and benefits/Stipends										
Postdoctoral	0	0	0	0	1	42,268	0	0	0	0
Other	1	2,790	0	0	1	2,250	0	0	0	0
Travel and subsistence costs										
	Year 1		Year 2		Year 3		Year 4		Year 5	
Applicant/Team member(s)										
Canadian travel	0		7,692		692		692		0	
Foreign travel	0		0		8,000		8,000		0	
Students										
Canadian travel	0		3,846		1,846		1,846		0	
Foreign travel	0		0		0		4,000		0	
Other expenses										
Professional/Technical services	500		2,120		2,120		2,120		0	
Supplies	1,687		1,240		1,240		240		0	
Non-disposable equipment										
Computer hardware	2,486		0		0		0		0	
Other										
Other expenses (specify)										
Teacher Substitute Costs	0		0		3,500		3,500		0	
	0		0		0		0		0	
	0		0		0		0		0	
Total	44,210		53,121		88,412		47,956		0	

BUDGET JUSTIFICATION**Personnel Costs**Doctoral Students

Budgeted: Three 6 hour a week doctoral assistants (GRAs), Years 1-4 (Edmonton, Calgary, Melbourne).

Rationale: Methods used and communication across the research sites requires considerable human resources. GRAs will provide assistance with contextual analyses, interview and focus group data gathering, analysis and interpretation, and will help to prepare and communicate of results. The Melbourne site will receive equal costs to offset their PhD stipends.

Total: Yr 1 (\$4083/3 term GRA = \$12,249 x 3 = \$36747), Yr 2 (3 term GRA + 4% cost of living = \$4247 x 3 = \$12741 x 3 = \$38,223), Yr 3 (2 term GRA + 4% = \$8832 x 3 = \$26496), Yr 4 (2 term GRA + 4% = \$9186 x 3 = \$27558 - U of A rates) = **129 024**

Non-student Salaries and Benefits: Postdoctoral Student

Budgeted: One postdoctoral student who will work across sites in Year 3.

Rationale: With many hours of interview and focus group data, multiple sites, use of coding software, and the need to develop collective interpretations, we require a postdoc to work closely with the team (graduate students and researchers) to assist in consolidating results. We expect that one of the Canadian doctoral students involved earlier in the project will apply for this position.

Total: Yr 3 (U of A recommended salary \$41,000 + supplemental health \$1,268) = **42 268**

Non-student Salaries and Benefits: Transcription

Budgeted: Transcription for 124 interviews in Year 1-2; estimated 100 follow up interviews in Year 3.

Rationale: Transcription support is required for 45 minute interviews of participants.

Total: Yr 1 (124 interviews x 45mins = 5580 mins./93 hours of tape @ \$30/hr = \$2790) + Yr 3 (75 hours @ \$30/hr = \$2250) = **5 040**

Travel and Subsistence Costs

Budgeted: Funds are budgeted to cover expenses that will be incurred during research travel for interviews and teacher focus groups outside of the researchers' locations.

Rationale: We will work with 5 teacher groups outside of urban areas; approximately half the interviews (62) will require travel. We plan to consolidate interviews and focus groups. Locations listed are indicative of our choices but not finalized; we expect distances travelled to be similar to e.g.s listed. We anticipate GRAs will collect BC data (and combine trips) plus one of the Alberta groups.

Total: Years 1–3 (2 trips each to Ballarat, AU; Edson, AB; Red Deer, AB = 300km return @ \$0.46km = \$138 + lunch & dinner per diem of \$35 = \$173 per trip x 2 trips = \$346 x 3 locations = \$1038 x 3 years = \$3114; Vancouver, BC = \$300 air, 2 nights hotel @ \$150, 3 day per diem @ \$45, taxis @ \$120 = \$855 x 2 = \$1320 x 3 = \$3960; Lytton, BC 1 day car rental/fuel @ \$45 + daily per diem \$45 = \$90 x 2 = \$180 x 3 = \$540) = **7 614**

Budgeted: Assistance to attend academic conferences (applicants)

Rationale: Budgeted funds will be used to help with costs of airfare, hotels, meals, registrations required for attendance at conferences to support the KMP; we also will use our own professional expense funds. Travel requests are made for one national conference in Yr 2 for the team (CSSE, St. Catherines), one international (AERA, Chicago) for the team in Yr 3 and one international (WERA, location TBA) in Yr 4. We will also use these events as opportunities to collaborate regarding the project. We are not requesting funds for symposium travel—we will apply for separate funding through a SSHRC Connection grant as well as requesting support from CREFI at Deakin.

Total: (\$2 000 for 4 investigators per international conference x 2 = \$16 000 + one national conference = \$1 000 x 2 Canadians = \$2000 + \$2 500 x 2 Australians = \$5 000) = **23 000**

Budgeted: Assistance to attend academic conferences (graduate students).

Rationale: Budgeted funds will be used to cover some of the expenses to be incurred by Canadian doctoral student assistants for travel with the team to academic conferences to assist with presentation of

findings. (Canadian conference in Yr 2 and international conference in Yr 4) The Canadian GRAs will be encouraged to apply for Travel Awards to top up expenses. The Australian GRA will apply for travel funding within her/his own program.

Total: (\$1 000 x 2 students + \$2 000 x 2 students) = **6 000**

Other Expenses

Professional/Technical Services

Budgeted: video conferencing facilities and communication services

Rationale: To support ongoing communication and development of the online symposia, VC services will be required for sites during use outside of regular hours, due to time zones and weekend symposia).

Total: (\$200 per hour for VC services, U of A quote=2 x 3hr sessions = \$1200 in Years 2–4) = **3 600**

Budgeted: Technology support for digital communication and video editing.

Rationale: Team members will provide their expertise to develop websites, blogs and social media forums, but we will require additional support to customize these tools and assist in video development. In Years 2 - 4 we will develop 3 professionally edited videos to be shared on our website and to widely publicize the projects.

Total: (technology support = \$500 in each year of the project = \$2000; video editing, U of Alberta AICT rates per finished minute = \$28 hr x 15 = 420 x 3 = 1260) = **3 260**

Supplies for Focus Group Seminars

Budgeted: supplies, materials and hosting costs to support focus group seminars

Rationale: Text materials (online app store cards, curriculum materials), presentation materials, data storage (thumb drives etc.), and light refreshments will be required by each focus group.

Total: (\$100 x 10 groups per year = \$1000 x Years 1 - 3) = **3 000**

Computer Software

Budgeted: Inqscribe for video transcription and annotation; nVivo for qualitative data coding

Rationale: Our project involves a considerable amount of digital data and we require software to assist in analyses.

Total: (Inqscribe = \$69 x 3 sites = \$207; nVivo = \$160 license in Yr 1 + \$80 renewal in Years 2–4 = \$400 x 3 sites = \$1200) = **1 407**

Non-disposable Equipment - Computer Hardware

Budgeted: one laptop computer, 3 iPads

Rationale: A considerable amount of data gathering will occur in locations requiring travel by GRAs. The team will make use of their own computers and iPads from their previous projects, but GRAs will require iPads for work with focus groups in order to develop innovative approaches, examine new applications, and to assist in data collection. A laptop is budgeted for use by Canadian GRAs and Postdoc for data collection in the Canadian sites requiring travel, for data analysis and to support digital communication for focus groups. Australian researchers have access to equipment for their site.

Total: (13 inch Macbook Air in Year 1 = \$1229; 3 iPad 2s @ \$419 = \$1257) = **2 486**

Other expenses (specified)

Teacher Release Time/Substitute costs

Budgeted: Substitute teaching coverage

Rationale: To enable teacher participation in KMB events such as professional and academic conferences. Providing substitute coverage will allow teacher participation as co-presenters, critical to KMB within professional communities. Funds will be shared among teacher participants who are interested in participating in presentations. Substitute rates are similar in Australia and Alberta. We will assist participants in applying to their professional development funds for conference travel.

Total: (\$350/day substitute costs x 10 participants in Yr 3 and 10 participants in Yr 4) = **7 000**

TOTAL

233 699



Family name, Given name

Laidlaw, Linda

Suggested Assessors

List Canadian or foreign specialists whom SSHRC may ask to assess your proposal.

List keywords that best describe the assessor's areas of research expertise. Please refer to the Suggested Assessors section of the detailed instructions for more information on conflicts of interest.

Family name Heydon		Given name Rachel		Initials	Title Dr.
Org. code	Full organization name University of Western Ontario		Keywords early literacy; diversity; elementary language and literacy education; multimodal learning		
Department/Division name Faculty of Education			Address The University of Western Ontario 1137 Western Road		
Country code		Area code	Number	Extension	City/Municipality
			519	661-2111	81244
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Fax number		Country CANADA			
E-mail rheydon@uwo.ca					
Family name Rogers		Given name Theresa		Initials	Title Dr.
Org. code	Full organization name University of British Columbia		Keywords literacy education; multiple literacies; media production in schools; critical literacy		
Department/Division name Language and Literacy Education			Address Language and Literacy Education 2125 Main Mall		
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			604	822-0901	Vancouver
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Fax number		Country CANADA			
E-mail theresa.rogers@ubc.ca					
Family name Green		Given name Bill		Initials	Title Dr.
Org. code	Full organization name Charles Sturt University		Keywords literacy studies; information technologies; curriculum history; rural education; spatialized pedagogies;		
Department/Division name School of Teacher Education			Address Charles Sturt University School of Teacher Education The Grange Chancellery		
Country code		Area code	Number	Extension	Country
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Personal information will be stored in the Personal Information Bank for the appropriate program.

Application WEB