Royal Roads
UNIVERSITY

CULTIVATING CHANGE LEADERS
FOR A BETTER WORLD

LEARNING, TEACHING AND RESEARCH MODEL

LIFE.CHANGING

LTRM WORKING GROUP

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ACKNOWLEDGEMENT

Royal Roads University acknowledges that the campus is located on the traditional lands of the Xwsepsum (Esquimalt) and Lkwungen (Songhees) ancestors and families who have lived here for thousands of years.

This land has been part of the fabric of the life of Indigenous communities long before Hatley Castle was built, and it will be long into the future. It is with gratitude that we now learn and work here, where the past, present and future of Indigenous and non-Indigenous students, faculty and staff come together.

Hay'sxw'qa si'em!

CONTENTS

EXECUTIVE SUMMARY

This document reviews the current Learning and Teaching Model (LTM), to become what we now call the Learning, Teaching and Research Model (LTRM) for Royal Roads University. It details what the LTRM Working Group learned when it conducted an action research project. We engaged in an extensive, iterative and inclusive consultation with members of the Royal Roads community about their learning, teaching and research practices, and refined the results into a model comprising key values and attributes, and grounded in pedagogical theory. We also identified trends in higher education that support and align with how we work together to create highly effective learning environments at Royal Roads. This LTRM is not a prescriptive document; it does not ask you to abandon practices that you know are engaging and effective. Rather, it invites you to reflect on your practice, and to continue both our collective learning and our conversation on what values and attributes define our work at the university.

This project arose when faculty and staff were prompted to revise and renew the original LTM because of the shifting post-secondary education landscape, rapidly changing educational technology and new arrivals to Royal Roads. Our extensive and multifaceted consultations provided two foundational points to start. First, the new LTRM needs to recognize research explicitly as the core of our mandate and our work, as well as the essential services provided by university staff to support all of our efforts. Second, in identifying Royal Roads' core values, our LTRM must be capable of being communicated more clearly and succinctly to our diverse stakeholders and audiences. Thus, this LTRM retains essences of the original LTM, while including research and service as primary components, and embodying core values that we perceive we share—all in a messaging framework that aims to be simple, cohesive, and ultimately powerful and memorable.

This LTRM can be distilled to three core categories of values that express what our faculty, staff, students, alumni, advisory councils and other community members perceive as unique and forward-thinking in our work: applied and authentic, caring and community-based, and transformational. These categories form the acronym, ACT.

Table 1. RRU's Learning, Teaching and Research Model (LTRM)

APPLIED & AUTHENTIC	**CARING & COMMUNITY-BASED**	**TRANSFORMATIONAL**
▪ Interdisciplinary and transdisciplinary ▪ Experiential and participatory ▪ Flexible and individualized ▪ Outcomes-based ▪ Openly practiced	▪ Inclusive and diverse ▪ Community-based learning ▪ Supportive ▪ Team-based ▪ Co-creative ▪ Place- and virtual space-based	▪ Socially innovative ▪ Respectful of Indigenous Peoples and traditions ▪ Impactful ▪ Reflective

Situated in its wider context, this LTRM expresses how we work at Royal Roads and connects to both what we learn, teach and research, and most importantly, why we work at Royal Roads.

This document contains three parts: Part 1 describes the model's evolution and theoretical foundations, Part 2 sets out the model itself, and Part 3 charts the next steps in its ongoing evolution. In the Appendix are our research methods.

1.0
PURPOSE AND CONTEXT

1.1 PURPOSE OF LTRM

This Learning Teaching and Research Model (LTRM) document offers practitioners—staff, faculty, students, alumni and others—a report on how the LTRM emerged, what it is, how its categories and attributes are defined, and how these apply to learning, teaching and research at Royal Roads and the services supporting them. Like our original Learning and Teaching Model (LTM, 2013), the LTRM is "not intended to be a static, rigid, and prescriptive entity" (Hamilton, Grundy, Agger-Gupta, Veletsianos, & Márquez, 2017, p. 19). Rather, the LTRM is meant to inspire ongoing engagement, dialogue, creativity, meaning-making and debate among the wider Royal Roads community about what we do, why we do it, and how it contributes to our unique learning environment, culture and practice. The LTRM invites you to reflect on your practice, and to continue our collective conversation and learning.

This document details what our LTRM Working Group learned through an extensive, iterative and inclusive inquiry process in which we consulted members of the Royal Roads community about their learning, teaching and research practices. We then refined these findings into a model comprising key values and attributes, and grounded in pedagogical theory. Our group also identified trends in higher education that support and align with how we work together to create highly effective learning and research environments. This first part sets out the model's evolution and theoretical foundations.

1.2 FROM LTM TO LTRM[1]

The LTM/LTRM is Royal Roads' signature pedagogy, which Shulman (2005) defined as the distinctive teaching and learning practices characterizing the education of future practitioners in a given field. In addition to teaching knowledge and skills to future practitioners in distinctive ways, signature pedagogies also foster a particular way of seeing the world, one that includes "professional attitudes, values and dispositions" (p. 55) distinct to the profession. Thus, these pedagogies also have an inherent future orientation, shaping emerging practitioners and, indeed, the future direction of the profession. Although many professions—for example, nursing, architecture and law—have distinct signature pedagogies, Royal Roads' signature pedagogy spans all of its professional programs to align with its mission to provide "teaching and research [that] transforms careers and lives by solving problems and creating opportunities in the world" (Royal Roads University, 2017, p. 2).

The original LTM stated that the university's mandate and past practice had led to a set of lived principles for teaching and learning that were foundational across all programs, and focused on:

... producing citizens of the world who are passionate, determined, and confident lifelong learners, integrated into a broad network of like-minded learners, and who can confidently manage and resolve complex, real-life problems—the kinds of holistic, contextualized, multi-dimensional issues that Ackoff and Greenberg (2008, p. 27) refer to as "messes" because they are seldom simple, non-interactive, and isolated (Hamilton, Márquez, & Agger-Gupta, 2013, p. 1).

The LTM aimed to capture what made teaching and learning distinctive at Royal Roads. It identified eleven elements that were common to the university's approach to teaching and learning: outcomes-based, technology-enhanced, experiential and authentic, learning community, team-based, integrative, applied, engaged learning, action/applied research, supportive and flexible. These elements presented a description of Royal Roads' then-current educational practices. Identifying, defining and articulating the LTM, and then engaging in multiple community-wide dialogues and workshops, created the context for identifying, building and aligning a unique identity across the institution. The LTM has been used as the basis for strategic and academic planning as well as in faculty, staff and student recruitment, training and development. Most importantly, the LTM provided a platform for important conversations to occur across the university about what learning and teaching means in a Royal Roads context (Doug Hamilton, personal communication, May 9, 2018).

The original intent of the LTM was to foster ongoing and continuous reflection on what it means to learn and teach at Royal Roads. Since the inception of that model, faculty, staff and students have continued to engage in dialogue and meaning-making related to its elements, both informally and formally. Given the shifting post-secondary education landscape, rapidly changing educational technology, and new personnel joining the university, the time was right to formally re-examine and revise the model as the next step in its continual evolution. This revision project provided the opportunity to continue to evolve a framework for deep dialogue about concepts, practices, values and processes that make Royal Roads unique. This LRTM project undertook an extensive consultation process from December 2016 to August 2017 with the university community—staff, faculty, students, alumni and school advisory council members—that harnessed our collective energy, passion and expertise. (Our research methods are outlined in the Appendix.) This document describes the LTRM, current practice and practice to which we aspire.

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1 Learning and Teaching Model (LTM) refers to the original LTM (Hamilton, Márquez, & Agger-Gupta, 2013). Through this revision and renewal project, the name of the Learning and Teaching Model (LTM) shifted to the Learning, Teaching and Research Model (LTRM).

1.3 THEORETICAL FOUNDATIONS

Our data indicated that most of the original LTM's eleven attributes are still relevant to the Royal Roads community. However, many participants pointed out the need to update, clarify, reorganize and expand the attributes to reflect the current thinking, practices and priorities of the institution and, more broadly, in higher education. Thus, the LTRM aims to retain the essence of and build on, the original LTM, and on its theoretical foundations in social constructivist theory and social constructionist theory, and UNESCO's learning pillars (UNESCO, 2010, 2017).

SOCIAL CONSTRUCTIVISM[2]

The LTRM is grounded in social constructivist principles. Constructivism was influenced by John Dewey's (1938) theory of experience that described learning as an individual's active inquiry process in interaction with the world. Part of an "experiential continuum" (p. 33), learning is influenced by what is already known, and what is known influences subsequent learning. Thus, individual learning is built (or scaffolded) on previous knowledge and experiences (Mayes & de Freitas, 2004; Beetham & Sharpe, 2007). Social constructivism adds that an individual's knowledge construction takes place in a social context, which influences the learning process and "socially agreeable interpretations" (Adams, 2006, p. 246).

Shaped by influential theorists (e.g., Piaget, 1971, 1967; Vygotsky, 1986, 1978; Freire, 1970; Bruner, 1961)[3], constructivist learning theory asserts that "genuine learning occurs when students are actively engaged in the process of discussing ideas, interpreting meaning, and constructing knowledge" (Gordon, 2009). Such social constructivism typically involves seven factors: first, an orientation involving self-responsibility for learning that enables students to actively construct their own understanding of concepts; second, the use of complex, preferably real-world problems to support a discovery-oriented approach to learning; third, challenging, open-ended activities that encourage experimentation and risk-taking; fourth, collaborative inquiry with peers and faculty members to encourage deeper learning

than is possible through individual activities; fifth, shared ownership, understandings and meaning of the learning process; sixth, discussion and reflection that draws on existing concepts, contexts and skills; and finally, timely and effective feedback to support improvement in concept and skill development (Mayes & de Freitas, 2004; Beetham & Sharpe, 2007). The role of faculty in this type of learning environment goes beyond content expertise (Gordon, 2009) to also knowing how to guide and coach learners, and create engaging learning experiences that promote self-direction and the application of theory to practice. These features are essential elements in the learning environments at Royal Roads.

SOCIAL CONSTRUCTIONISM

While social constructivism suggests that learning occurs as individuals interact with others and the world, social constructionism posits that "we construct multiple and emerging 'realities' and selves with others through our dialogue" (Cunliffe 2008, p. 135). Social construction suggests that shared dialogue leads to the creation of new normative understandings of the world among a group, organization or community (e.g., Berger & Luckmann, 1967; Gergen & Thatchenkery, 1996; Gergen & Gergen, 2008). Through patterns of discourse, people form relational bonds with one another; create, transform, and maintain structure; and reinforce or challenge beliefs. The very act of communicating is the process through with we constitute experience. Communication, then, is not just a conduit for transferring information from one person to another; rather, it is the very process by which organizing comes to acquire consensual meaning (Barrett, Thomas, & Hocevar, 1995, p. 353).

This concept of social construction is involved integrally in the creation of a supportive, transformative culture that develops its own language, including humour, icons, images and shared experiences (Berger & Luckmann, 1967; Gergen, 2000). This emerging culture is developed through the learning community (Berger & Luckmann, 1967; Gergen, 2000; Wenger, McDermott, & Snyder, 2002)—student peers, staff and faculty—that supports students throughout their program, achieving shared goals and helping each other to finish the program, and maintaining these relationships into the broader professional worlds of Royal Roads alumni.

UNESCO'S FIVE PILLARS AND TRANSFORMATION

Like the original LTM, the LTRM remains grounded in UNESCO's five learning pillars:

1

Learning to know
The development of functional skills and knowledge, including literacy, numeracy, critical thinking and general knowledge;

2

Learning to do
The learning of applied and professional skills;

3

Learning to live together
The building blocks for social cohesion, i.e., the development of social skills and values, including respect and concern for others, interpersonal communication skills, and appreciation of cultural diversity;

4

Learning to be
The learning contributing to mind, body, and spiritual development, including creativity and personal discovery through reading books and the Internet, as well as sports and arts;

5

Learning to transform oneself and society
The social construction of new knowledge, skills and values among individuals and groups, equipping them with tools and new awareness for creating positive change in organizations, communities, and societies (UNESCO, 2010; UNESCO, 2017).

Originally conceived as a framework for transformational environmental education, UNESCO's five pillars address the whole person, and the multi-dimensional and transdisciplinary learning needed to resolve the urgent, difficult and complex problems confronting people, communities, societies and the world. Learning, according to the UNESCO framework, extends beyond acquiring knowledge and applying skills to working productively and inclusively with others, nurturing and providing individual growth of the whole person, and working for the for the common good. Based on the work of Jacques Delors (1996), the UNESCO model explicitly links personal transformation, social transformation and transdisciplinarity (Delors, 1996; Tawil et al.,2012; Tawil et al., 2013).

INTERDISCIPLINARITY AND TRANSDISCIPLINARITY

In the past 20 years, interdisciplinary research—studies involving researchers from multiple academic disciplines—has gone from 'nice to have' to 'need to have.' Today, given the complexity of social, political, environmental, economic and technological challenges facing the world, it is very quickly becoming something no country can do without. (Woolf, 2017)

Woolf goes on to argue that universities must embrace interdisciplinary research that "exposes specialists in one area to other perspectives and ways of thinking, challenging received truths and spurring creativity and innovation." Since its inception in 1995, Royal Roads has focused on education and research to address real-world issues. This focus "often requires an interdisciplinary and, where appropriate, a transdisciplinary approach" (Mary Bernard, personal communication, August 9, 2018). The LTRM Working Group's consultations showed that faculty members are passionate about both the interdisciplinarity and transdisciplinarity nature of their teaching and research, seeing these as essential characteristics of Royal Roads' learning, teaching and research. While definitions of these terms vary, a recent spontaneous and collegial email exchange on this topic demonstrates both commonalities in how faculty members define the terms, and that these concepts, particularly transdisciplinarity, are evolving new dimensions as faculty apply them in their teaching and research practices.[4]

The following table contrasts interdisciplinary and transdisciplinary approaches with related terms.

Table. 2: Disciplinary, multidisciplinary, interdisciplinary and transdisciplinary approaches[5]

TERM	DEFENITION
Disciplinary	Learning, teaching and research within the theoretical and methodological bounds of a single discipline
Multidisciplinary	More than one research project, each done in a disciplinary mode, but aiming to help address a common problem
Interdisciplinary	Combines and integrates theories and methods from more than one discipline
Transdisciplinary	Research that crosses both disciplinary and academic boundaries to incorporate stakeholders in the research process and to foster a more socially robust knowledge

4   The references to "personal communications"' are adapted from this email exchange and used with permission.
5   Adapted from Brian Belcher, personal communication, August 29, 2018.

Citing his review of quality in evaluating transdisciplinary research (Belcher, Rasmussen, Kemshaw, & Zornes, 2016), Belcher argues that most definitions of interdisciplinary learning, teaching and research combine theories and methods from more than one discipline, and that these interact in a novel integration of the components, with a problem-solving focus.

The most common definitions of transdisciplinary learning, teaching and research "focus on a problem-orientation for research and on societal relevance and engagement, transgressing academic boundaries to engage lay actors in the research process" (Brian Belcher, personal communication, August 29, 2018; Belcher, Rasmussen, Kemshaw, & Zornes, 2016). Transdisciplinarity refers to "iteratively crossing back and forth and among and beyond disciplinary and sectoral boundaries to solve the complex, wicked problems of humanity" (McGregor, 2014, p. 161). Applied to research, transdisciplinarity may result in the "construction of unique methodologies tailored to the problem and context" (Wickson, Carew, & Russell, 2006, p. 1050) and involve collaborative knowledge production among researchers and stakeholders to ensure effective problem-solving (Wickson et al., 2006; Carew & Wickson, 2010).

Applied to learning, transdisciplinarity "is a way of self-transformation oriented towards knowledge of the self, the unity of knowledge, and the creation of a new art of living in society (Nicolescu, n.d, p. 3). This transformative learning (UNESCO's Pillar 5) is grounded in and dependent on the capacity to think across disciplines. This expansive, inclusive thinking supports students to tolerate ambiguity, sit with a dilemma, and, in turn, navigate complex challenges by questioning limiting beliefs and assumptions, and embracing different ways of knowing.

As does UNESCO's framework, transdisciplinary learning, teaching and research as practiced at Royal Roads "involve different knowledge systems, [or] ways of knowing" (Leslie King, personal communication, August 29, 2018). Because they address real-world problems, transdisciplinary approaches also may encompass transgressive methods to address social inequities such as Indigenous and other creative action-oriented methods; these include inclusion of stakeholders in projects and co-creation of knowledge (Robin Cox, personal communication, August 29, 2018). The conversation continues.

Drawing on the foregoing theoretical frameworks, we now turn to the core of the LTRM as we see it practiced at Royal Roads.

2.0 LTRM: THREE CORE CATEGORIES OF ATTRIBUTES

2.1 ACT

The LTRM is organized into three core categories of values or attributes of learning, teaching and research practice:

Table 3: LTRM core categories

APPLIED & AUTHENTIC	CARING & COMMUNITY-BASED	TRANSFORMATIONAL
• Interdisciplinary and transdisciplinary • Experiential and participatory • Flexible and individualized • Outcomes-based • Openly practiced	• Inclusive and diverse • Community-based learning • Supportive • Team-based • Co-creative • Place- and virtual space-based	• Socially innovative • Respectful of Indigenous Peoples and traditions • Impactful • Reflective

2.2 (A) = APPLIED AND AUTHENTIC

Applied refers to Royal Roads' focus on teaching, learning, research and service oriented to making a difference in the real world. It is about creating practical outcomes that make a positive difference in the world versus knowledge outcomes that are primarily of scholarly interest, but with no direct practical outcomes.

Authentic refers to learning experiences that are "designed to connect what students are taught in school to real-world issues, problems and applications" (Pierce, 2016, p. 1). It includes activities that develop learning that students will use in the real world, as well as experiences that they may have working with messy problems or learning in practice, such as through on-the-job placements. The elements in this category have complementary and overlapping characteristics, but they all promote the applied and authentic nature of our work.

INTERDISCIPLINARY AND TRANSDISCIPLINARY

As described above, interdisciplinary learning, teaching and research combine theories and methods from more than one discipline. These interact with each other and result in a novel integration of the components, with a problem-solving focus. In contrast, transdisciplinarity refers to "iteratively crossing back and forth and among and beyond disciplinary and sectoral boundaries to solve the complex, wicked problems of humanity" (McGregor, 2014, p. 161).[6]

EXPERIENTIAL AND PARTICIPATORY

Creating an experiential learning environment requires our educators, staff and students to create authentic teaching and learning environments with space for learners to participate actively in the examination of the complexities of real-world challenges through a research-informed lens. Learning is seen as an active process facilitated by all involved. It is fueled by curiosity, requiring critical reflection and a willingness to experiment, to be challenged, and to iterate ideas in the process of constructing knowledge. An experiential and participatory environment helps students to achieve four major objectives in learning: first, to make connections between personal interests and those germane to their field of study; second, to be more motivated to engage and persevere as a result of the increased relevance of the activity; third, to facilitate absorption, retention and transfer of skills and knowledge; and fourth, to provide a sense of enculturation to their profession or discipline (Lombardi, 2007).

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6   See pp. 10–11 above for a more detailed discussion of interdisciplinarity and transdisciplinarity.

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FLEXIBLE AND INDIVIDUALIZED

We use the term **flexible** in three senses. As an institution, we have long practiced flexible assessment for admission to programs. Flexible assessment identifies qualified learners (who may not have taken traditional educational programs) by evaluating and recognizing demonstrable skills and knowledge that they have gained through life experience, often through their work experience. Flexible assessment creates a pathway for experienced professionals to access programs that allow them to enhance their practice.

Flexible and individualized recognizes a trend that students increasingly seek opportunities to shape their studies to their needs. We currently do this through course activities and assignments that allow students to work on real-world issues in their lives, in their workplaces or by taking electives. In addition, programs in Royal Roads' College of Interdisciplinary Studies

are fully individualized according to the student's interests. However, as we revise programs and create new ones, we recommend that ways to allow students to take course electives in other programs be considered where possible.

Flexible and individualized also refers to the flexibility of access to programs depending on the type of program delivery format that suits students' unique learning needs, personal situation and context. Educational offerings are delivered in a variety of settings and modes: face-to-face, in home communities, on campus and fully online. In this sense of flexible and individualized, "teachers, learners, networks, connections, media, resources [and] tools create a unique entity that has the potential to meet individual learners', educators' and even societal needs" (Gertstein, 2014, p. 92).
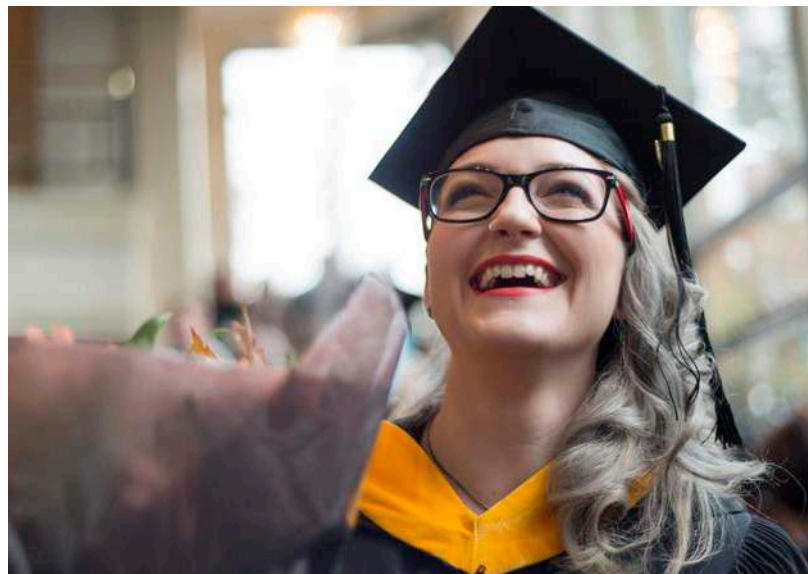
OUTCOMES-BASED

Royal Roads has used an outcomes-based approach since its inception in 1995. All curriculum is developed and delivered using program-wide learning outcomes created in consultation with school advisory councils that represent various stakeholder groups impacted by the curriculum. An outcomes-based approach facilitates clarity of program focus, can aid in fostering deep learning, and enables explicit connections to be drawn between program learning outcomes, course learning activities and transparent assessment (Drake & Burns, 2004). At Royal

Roads, "learning outcomes describe the knowledge and skills that graduates will attain upon completion of their course or program of studies…it is a means of focusing specifically on what students should be learning, not what content should be 'covered'… Learning outcomes can bring transparency, fairness, and flexibility to the process of curriculum design, delivery and assessment" (Hamilton, Márquez, & Agger-Gupta, 2013, p. 19).

OPENLY PRACTICED

Ways of working with "open, social and participatory media" have influenced… "the ways in which users interact, communicate and participate with technologies" (Conole, 2013, p. 47), including learning technologies and approaches. The trend towards the use of open educational resources (OER), "free, digital, easily shared learning materials" (DeRosa & Robison, 2017, p. 116) has shifted into a movement of open educational practices and pedagogies, encompassing a variety of practices that can transform courses "from repositories for content" into "platforms for learning, collaboration, and engagement with the world outside of the classroom" (p. 117).

Open practices share several characteristics (Hegarty, 2015; Conole, 2013) that support social learning. Participatory technologies are used to connect people to share ideas, knowledge and resources through social-networked media.

These technologies encourage innovation and creativity through peer interaction. OER, digital technologies and open pedagogical practices promote the production and sharing of learner-generated content and resources. Such practices promote active participation in the learning process. We approach open practices with an ethic of care, which we endeavor to reflect in other practices as well (George Veletsianos, personal communication, 2018)[7].

Elements of Royal Roads' LTRM, such as inquiry-based or problem-based learning, dialogic and collaborative learning, constructivism and active engagement (De Freitas & Conole, 2010), as well as reflective practice, experiential learning, and collaborative and team learning, align with open educational practices. All of these elements can serve as a guide as we renew our technologies and instructional approaches.

7 Part of presentation: Childs, E., Axe, J. Webser, K. Dyck, T., Veletsianos, G. (2018). Building warmth in the cold, dark quiet: the promise and challenge of fostering a pedagogy of care in an online graduate program. Presentation at the BC Festival of Learning, May 28–29, 2018, Vancouver, BC.

APPLIED AND AUTHENTIC IN OUR PRACTICE

Table 4: Applied and Authentic in our practice

LTRM ELEMENT (CORRESPONDENCE TO ORIGINAL LTM)	APPLIED TO LEARNING	APPLIED TO TEACHING	APPLIED TO RESEARCH
Interdisciplinary and transdisciplinary (formerly 'integrative')	Interdisciplinary and transdisciplinary perspectives ensure students' learning is relevant to their workplaces, communities and lives.	Programs are interdisciplinary and transdisciplinary, mirroring real-world, complex and messy contexts.	Researchers use interdisciplinary and transdisciplinary research methodologies and literature.
Experiential and participatory (formerly 'experiential and authentic')	Experiential and participative learning activities promote relevant, active and meaningful learning.	Faculty and staff facilitate experiential learning activities that promote the development of higher-order thinking skills such as application, analysis and synthesis.	Participatory methodologies and methods engage organizations and/or community members and other stakeholders in designing effective and inclusive solutions.
Flexible and individualized (formerly 'flexible'; expanded, aspirational)	Students are able to adapt learning plans and courses of study to fit their needs and objectives.	Programs plan for increased flexibility, creating opportunities for students to individualize programming, e.g., embedded courses, certificates, diploma and full degree programs; options for students to take courses in other programs; courses shared with other schools . Flexible admission allows non-traditional but qualified students to access programs.	Students are supported to develop research plans that fit their needs and objectives.
Outcomes-based (included in LTM)	Rich faculty and peer feedback supports individual student learning. Outcomes-based curricula and assessment empower students to improve their skills and knowledge.	Rich faculty and peer feedback, authentic activities and outcomes-based curricula ensure engaging and well-focused design of learning experiences.	Inquiry skills and knowledge support high-quality student, faculty and staff research oriented to making a difference in the real world.
Openly practiced (new; aspirational)	Students are empowered to learn with, by and through others in communities and networks supporting dialogical, socially-constructed learning.	Curriculum design includes access to high-quality open educational resources, and draws upon open participatory technologies to facilitate collaborative and flexible learning.	Researchers use "participatory technologies and online social networks to share, reflect on, critique, improve, validate and further scholarship".[8]

8 Veletsianos & Kimmons, 2012.

2.3 Ⓒ = CARING AND COMMUNITY-BASED

Caring refers to Royal Roads' focus on placing the human at the centre and intentionally building relationships based on trust and respect to create a safe community and provide spaces for students to discuss the tensions that they face as they learn, change and grow. It is evidenced by establishing connections with program staff, faculty and student colleagues and beyond, and nurturing these relationships to support the success of all.

Community-based refers in one sense to the learning communities that support the "conversational, dialogical and, therefore, socially constructed nature of adult learning… they enable students, faculty and others to actively engage with one another and to work collaboratively to address complex issues" (Hamilton, Márquez, & Agger-Gupta, 2013, p. 21). It includes activities that facilitate the creation of supportive relationships, develop trust, and nurture collaboration and contribution. The elements in this category have complementary characteristics and work to create an environment that is supportive, future-oriented and impactful, which is central to our work. In research, it refers to respect for cultural identities and protocols, authentic engagement with communities and participants and, where appropriate, the co-creation of knowledge.

INCLUSIVE AND DIVERSE

Inclusive and diverse experiences enrich the community and the learning of all. "Royal Roads University is committed to appreciating and celebrating the diversity of students, faculty, and staff. We strive to increase understanding and acceptance of each other, thereby making us more compassionate human beings and strengthening the fabric of our communities" (Royal Roads University Diversity Statement, nd. http://www.royalroads.ca/diversity Retrieved March 19, 2019.). Intentionally working to create safe places for sharing experiences and community-building that respect race, gender, sexual orientation, and different abilities is our priority and a foundation of our focus on cohort-based learning. By drawing on and encouraging the exploration of multiple and diverse perspectives, we are able to provide high-quality learning experiences.

LEARNING COMMUNITY-BASED

Social learning is key to the overall experience at Royal Roads. Through on-campus programs, face-to-face experiences, a digital learning system and supporting social-network tools, learners are connected within and beyond their cohorts, communities and networks. The resulting learning community is an act of co-creation among faculty, learners, staff, researchers and members of the wider community. It recognizes at its core the value of relationships and the requirement of reflection, and fosters the inclusion of diverse perspectives. These learning communities encourage and support students, faculty and staff to collaborate and contribute in a meaningful way to the larger networks in their field and, by doing so, extend the scope and impact of their work.

TEAM-BASED

In keeping with the LTM (2013), "one of the key educational strategies common to all programs is the emphasis on team-based learning" (p. 24). Team-based approaches in learning, teaching and research facilitate applicable, relevant and authentic experiences. The intentional emphasis on teams supports the inter/transdiciplinarity of the work done at Royal Roads, strengthens and sustains learning communities, and extends the individual and collective impact of the learning and knowledge created.

CO-CREATIVE

All involved in co-creating the learning experience at Royal Roads include, value and draw on the depth of expertise provided by the learner, learning community, faculty and staff as they deepen their individual and collective knowledge.

PLACE- AND VIRTUAL SPACE-BASED[9]

Teaching, learning, research and service are often influenced by the unique ties to the land nurtured by each of us. With a rich natural heritage and a diverse cultural heritage evolving over millennia, the sense of place where Royal Roads resides resonates permanence. We acknowledge the deep emotional quality of this place by recognizing the ancestral lands of the Xwsepsum and Lkwungen peoples. We also learn from the journeys of other families, individuals and groups who came, lived and learned here and whose stories bind this geography to the historical narrative that is recognized in Hatley Park National Historic Site. We walk, reflect and rejuvenate amidst a distinct mosaic of flora and fauna. Our sweeping view of sea and distant mountains testifies to the majesty of this planet and engenders our deep awe and respect as privileged stewards of this special place.

We bring this physical sense of place and its essence into our work in the virtual spaces and places that also constitute the Royal Roads experience. As an early adopter and leader in moving into online teaching and learning, the university recognized and prioritized the need to create digital learning environments that embodied the sense of place triggered by the physical location of the institution. Through our interactions with, and our engagement in the various face-to-face and digital learning environments in Royal Roads' learning ecosystem, we connect to this rich heritage as we continue to examine our role in creating, nurturing and sustaining these interconnected physical and virtual spaces. This sense of place calls to us and it questions, nurtures and inspires us. From this place, we gain and grow our appreciation for our role as a university in this world, and the global responsibility and reach ascribed to our task.

9 Our thanks to Geoff Bird for his contribution to this section.

CARING AND COMMUNITY-BASED IN OUR PRACTICE

Table 5: Caring and Community-based in our practice

ELEMENT (CORRESPONDENCE TO ORIGINAL LTM)	APPLIED TO LEARNING	APPLIED TO TEACHING	APPLIED TO RESEARCH
Inclusive and diverse (new)	Diverse and inclusive learning environments enrich the learning of all, creating a safe place for sharing experiences and community-building, respectful of race, gender, sexual orientation, different abilities, etc.	Faculty and staff prioritize providing high-quality and respectful educational experiences through engaging and inclusive learning environments that draw on diverse faculty and encourage exploration of multiple perspectives.	Research by Royal Roads faculty, staff and students seeks to engage diverse communities and stakeholders in meaningful dialogue about issues of relevance to them.
Learning community-based (included in LTM)	Students share their expertise and experience so others within their learning communities may benefit, creating a safe place for sharing experiences and community-building, respectful of race, gender, ethnicity, sexual orientation, differing abilities, and the additional categories underpinning individual and community culture. They also develop mutually beneficial relationships and networks that continue after they complete their learning.	Faculty and staff provide learning activities and the learning environment promotes the development of mutually supportive learning communities, whether students are in a cohort-based or a fully individualized program.	Researchers consult widely with stakeholders, from the conceptualization of the research topic through to knowledge dissemination, exchange and mobilization.
Supportive (included in LTM)	Students offer supportive guidance and appreciative feedback to their peers while also experiencing a broad range of support from classmates, faculty and staff.	Faculty and staff work together to support student access, engagement, and success. They provide a safe and supportive learning environment. Staff throughout the university take an educational approach to helping students gain knowledge and skills that equip them to make change in their own lives and in service of others.	Faculty and students are co-researchers working in the spirit of collegiality and co-creation.
Team-based (included in LTM)	Students gain skills in collaboration, team facilitation and project management, as well as in how to work effectively with people with multiple perspectives, abilities, personalities and cultural backgrounds.	Curricula explicitly support the development of effective face-to-face and virtual team skills, through team-based activities, and often supported by team coaches and others.	Faculty, staff and students work in collaborative, interdisciplinary research teams as innovations with complex real-world challenges open up through the application of multiple, simultaneous lenses and perspectives.
Co-creative (new)	Learning is based on experiences, readings and knowledge that students bring to and share with the learning community, and that emerge through dialogue among their cohort and with faculty, in innovative and frequently unpredictable ways.	Learning experiences, environments, new knowledge and products, as well as successful learning outcomes, are co-created, developed, implemented and supported through the involvement of many.	Engaged scholarship includes and values the co-creation of knowledge by partners, stakeholders and students.
Place and virtual space-based (formerly 'technology-enhanced')	Diverse communities, virtual spaces, and geographic places provide the context for connection and learning that that comprise the Royal Roads learning experience. Students develop a strong sense of connection to the heritage and natural environment of Royal Roads' campus, which they carry into other learning spaces. Whether on campus, in their virtual communities or in their home communities, students are encouraged to develop an ethic of care.	Faculty and staff recognize that both the physical campus and the virtual learning spaces comprise a living learning laboratory, where the learning spaces and experiences they co-create seek to maximize the benefits of the rich cultural and natural setting of Royal Roads' campus, the West Shore, and other communities both virtual and physical.	Royal Roads research takes place in physical locations, online spaces, and via digital communication, as appropriate to the communities involved. We guard the personal knowledge and identities of others that are shared with us through the research process, and take care in preserving and sharing student and faculty research results.

2.4 **T** = TRANSFORMATIONAL

At the root of any organizational or social change lies individual change (Taylor, 1998). Transformational applies to learning, the means for transformation and developing the kind of leader that we seek to educate. This category aligns with Pillar 5 of UNESCO's educational framework for sustainable development, which concerns "Learning to Transform Oneself and Society" (UNESCO, 2017, 2010). Mezirow (2003) defines transformative learning as:

learning that transforms [a person's] problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change. (p. 58)

SOCIALLY INNOVATIVE

The transformational aspect of the model seeks to develop in students a socially innovative mindset capable of generating systemic, sustainable, creative solutions to social challenges and changes, including challenges related to the environment, education, health and business.

RESPECTFUL OF INDIGENOUS PEOPLES AND TRADITIONS[10]

As society learns to integrate and reconcile multiple ways of knowing, we work intentionally to develop a culturally responsive pedagogy. In collaboration with local and place-based First Nations communities and other Indigenous relations, we co-imagine a curriculum that includes but also learns from Indigenous principles and history, and we offer students opportunities to experience Indigenous ways of knowing and being.

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10 The LTRM Working Group has struggled with wording for this element that accurately conveys the richness of meaning we intend. Neither indigenization nor reconciliation (used in earlier drafts) fully conveyed the process we feel is essential. Nor does Respectful of Indigenous Peoples and traditions fully convey what we mean; all of these connote that we are doing something for or to Indigenous Peoples. Instead, we believe that this is a process, not of us and them, but rather of us (Indigenous and settlers) working together in a good way for the good of all.
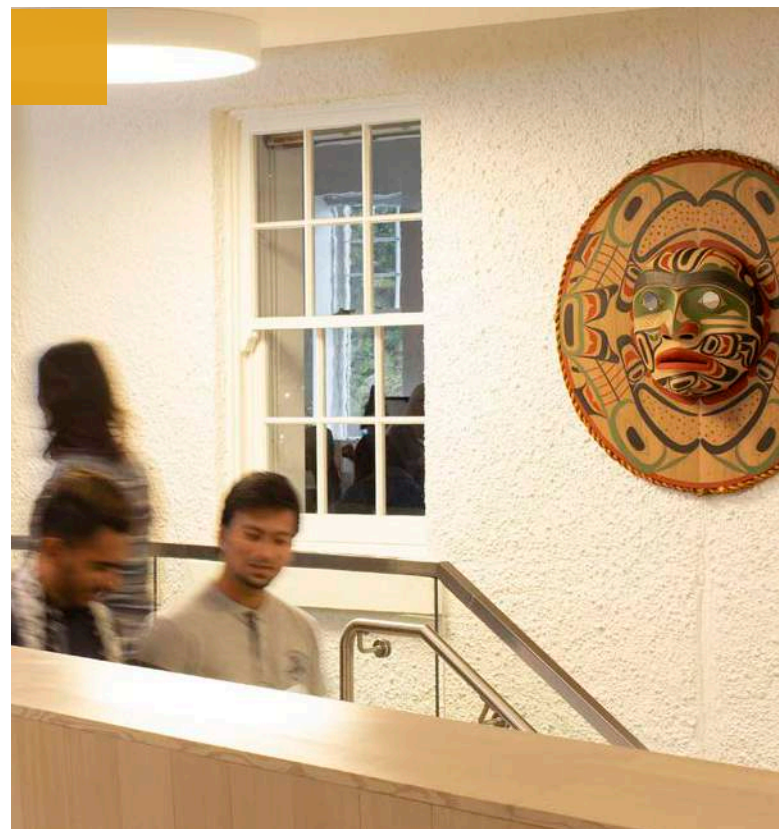
REFLECTIVE

Transformational learning requires reflective practice as part of "a dynamic, uniquely individualized process of expanding consciousness whereby individuals become critically aware of old and new self-views and choose to integrate these views into a new self-definition" (Wade, 1998, p. 716). Transformation is a cyclical process that begins with a disorienting dilemma and an individual's decision to confront it through reflection and a questioning of assumptions. This process can lead to reinterpretation of experiences in light of new insights and understanding, as well as an enduring change in attitude and behaviour.

IMPACTFUL

Transformative learning is critical to educating transformational leaders who can "[cross] over into a new way of grasping collective action, including their own role in catalyzing sound judgement and harvesting the wisdom of groups" (Briskin, 2012, p. 179). We aim to cultivate leadership and other skills in the interests of making positive social change. Students solve real-life challenges, generate practical solutions, produce accessible research, and track the impact of their contributions socially, environmentally, politically and organizationally.

TRANSFORMATIONAL IN OUR PRACTICE

Table 6: Transformational in our practice

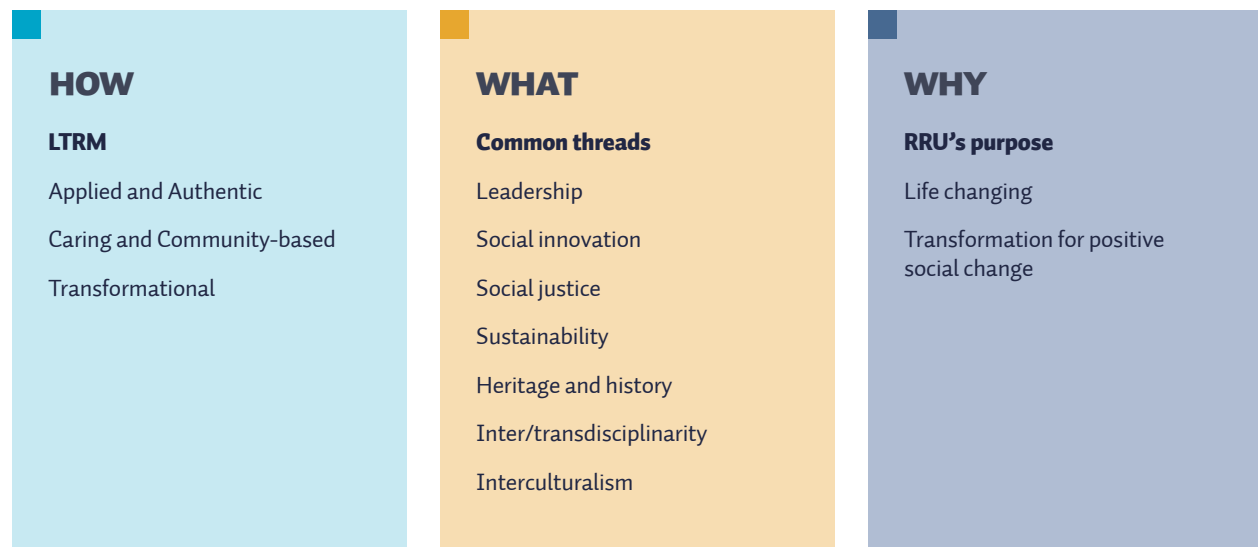| ELEMENT (CORRESPONDENCE TO ORIGINAL LTM)	APPLIED TO LEARNING	APPLIED TO TEACHING	APPLIED TO RESEARCH
Socially innovative (new)	Social innovation is embedded in students' learning as they work on actual challenges in their organizations, communities and lives. Students share knowledge through this work.	Faculty and staff embed an orientation to social innovation and fostering change into curricular and co-curricular activities, such as applied and experiential learning, live cases and community engagement. Faculty and staff strive to meet the needs of students, industry and society by staying informed of local and global shifts and trends.	Faculty and student research drives social innovation committed to sustainability and positive social change. Faculty and student research aims to have a positive impact in organizations, communities, the environment and beyond. Faculty and student research serves the needs of organizations and communities locally and globally.
Respectful of Indigenous Peoples and traditions (new)	Indigenous and non-Indigenous students are challenged to become conscious of their role in decolonization and to make contributions to reparation and restitution for the Indigenous Peoples of Canada and beyond.	Indigenous epistemologies and pedagogies are reflected in curricula and instruction. Actions relevant to post-secondary education in the Truth and Reconciliation Commission of Canada's calls to action[11] are addressed.	Faculty and student research seeks to respect Indigenous protocols and teachings, and conforms to Indigenous research ethics in Canada and beyond.
Reflective (formerly 'engaged learning')	Students become reflective practitioners, with well-developed critical thinking, analysis and decision-making skills.	Curricula promote reflection for ongoing improvement of professional practice and for effectively applying new learning to practice. Rich faculty and peer feedback, authentic activities and outcomes-based curricula foster opportunities for deep and ongoing reflection.	Students become reflective researchers with well-developed skills to design, conduct and iteratively refine their research projects.
Impactful (formerly 'applied' and 'action/applied research')	Students learn to be practitioner-scholars who seek to improve their practices through inquiry and learning.	Faculty members are scholar-practitioners able to support learning that prepares students to tackle real-life, ill-structured and complex issues and problems.	Faculty and student research aims to have a positive impact in organizations, communities and beyond.

11 Truth and Reconciliation Commission of Canada. (2015).

2.5   LTRM IN CONTEXT

The LTRM reflects and is situated within the how, what and why of Royal Roads. The 'how' is captured in our acronym of ACT: our learning, teaching and research, and the services supporting them, aim to be applied and authentic, caring and collaborative, and transformational. What we teach, how our students learn and the topics our faculty and students choose to research, reflect our purpose.

No matter the subject matter, common threads such as sustainability, social innovation and leadership are woven in throughout. Finally, and most profoundly, our LTRM is grounded in the purpose or 'why' of our university, captured in our tagline, 'Life. Changing'. As an internationally-designated Ashoka Changemaker (Ashoka, n.d.), Royal Roads aims to help bring about change for a better world: by learning to transform self, we learn to transform others.

Figure 1: The how, what, and why of the LTRM

HOW	WHAT	WHY
LTRM	**Common threads**	**RRU's purpose**
Applied and Authentic	Leadership	Life changing
Caring and Community-based	Social innovation	Transformation for positive social change
Transformational	Social justice	
	Sustainability	
	Heritage and history	
	Inter/transdisciplinarity	
	Interculturalism	

Building leadership capacity is a common theme in our programs since it prepares students to become leaders who can work effectively with others to solve complex, real-world problems (Fullan & Scott, 2009), and foster social innovation, social justice and sustainability. To quote Royal Roads' Strategic Direction document:

No matter the program, no matter the field of research, the common characteristic displayed by our faculty, researchers, students and professional staff is leadership… It is leadership that is deeply invested with values and ethic. It

is leadership that is about moving forward and reaching out (Royal Roads University, 2017, p. 9).

Our programs "challenge participants to develop new ways of understanding leadership" (Satterwhite, Miller, & Sheridan, 2015, p. 69) that include inquiry-based decision-making, and inclusive and meaningful dialogue. We believe that to have a positive impact in this context, leaders also need to be effective communicators and researchers, sharing their knowledge and listening deeply and respectfully in multiple modes. Royal Roads uses innovative, engaging and effective ways to prepare graduates to make a positive difference in an ever-changing, complex world.

3.0
NEXT STEPS

3.1 CONTINUING CONVERSATIONS

This LTRM document reflects our evolving practice at Royal Roads. As our university is a learning organization, we must capture our Learning, Teaching, and Research Model in a living document to give our community a touchstone, compass and reference point. As part of an evolutionary process, we commit to revisiting our model at least every five years to review current educational literature and theory, and re-engage with our staff, faculty, students, alumni and other stakeholders to renew our purpose, principles and practices.

Embodied within this process of revising and renewing our LTRM, is the concept of continuing conversations. A model is only useful if it is embedded in all we do, referenced continually across the university, and used to guide our program development and design, assessment, professional development, accounting, planning, communications, hiring, policy, procedures and partnership development. Effective communication processes and content will be essential to ensuring that the model lives and evolves.

3.2 EVALUATION

Some ongoing ways to (re)evaluate the currency of our LTRM and how we practice it are:

- five-year revisit and renewal (working group, research project as with this LTRM);

- feedback loops in meetings at all levels: program, school, faculty, Academic Leadership Team, Strategic Enrolment Management, Board of Governors;

- campus conversation survey, such as where can we live our model more effectively?

- question-and-suggestion forum monitored by VP academic, deans, directors, program heads;

- communities-of-practice reports to Academic Leadership Team and academic planning.

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APPENDIX
# RESEARCH APPROACH AND METHODS

RESEARCH QUESTION

This project asked: How can engaging the Royal Roads community (faculty, staff, students, alumni and others) in dialogue inform the creation of a Learning and Teaching Model 2.0 (which became the Learning, Teaching and Research Model or LTRM) that reflects current best practices as well as desirable directions for the future?

This project's purpose, process and outcomes align with features of action research. According to Bradbury and Reason (2003, p. 155), action-research projects:

- address a problem or opportunity of significance to those who are or will be impacted;

- are developed in partnership, working with people, since their experiences and knowledge are vital to creating positive outcomes;

- promote "new ways of seeing/theorizing the world" and "leave infrastructure in its wake".

This project was initiated to continue exploration of and dialogue about what learning and teaching mean at Royal Roads, which began with the original LTM. The resulting project design included several action-research loops (Fig. 2 below), each aimed at providing opportunities to gain diverse perspectives of all members of the Royal Roads community. These loops maximize opportunities for ongoing engagement and feedback from our community.

Figure 2: Action research cycles in the LTRM review and revision
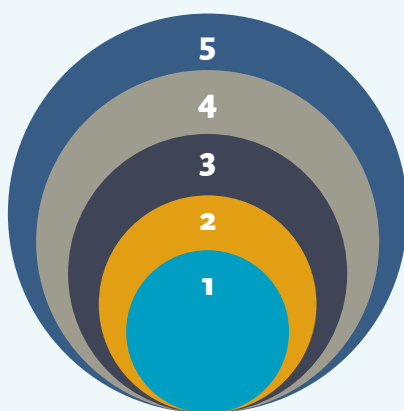
Loop 5
Eventual review and revision

Loop 4
Opportunities for community members to work with data and the model

Loop 3
Development of detailed document and circulation for feedback and executive approval

Loop 2
Circulation of prototype for feedback and refinement

Loop 1
Data collection, ideation and development of LTRM prototype

Each loop consisted of the iterative action-research cycles of observation, reflection and action (Stringer, 2014, p. 9). The design of the LTRM was also informed by the design-thinking stages of discovery, ideation and prototyping, followed by iterative cycles of reviewing and refining the prototype (Silverman, 2015, p. 718).

The following table illustrates the alignment of the action-research cycles and the design-thinking stages in the first three loops of the design for this LTRM project:

Table 7: Stages of the LTRM

LTRM STAGE	ACTION-RESEARCH CYCLE	DESIGN-THINKING STAGE	LTRM PROJECT DESIGN
LOOP 1	Observation	Discovery or information/data-gathering	Conversations, data-gathering, focus groups
	Reflection	Ideation, generation of ideas or insights from the data/information	Data-analysis meetings
	Action	Creation of prototype	Drafting of LTRM model
LOOP 2	Observation Reflection Action	Iterative model-building	Circulation of draft prototype for feedback, identification of changes, revision and refinement
LOOP 3	Observation Reflection Action	Iterative model-building	Circulation of draft prototype for feedback, identification of changes, revision and refinement

The LTRM project used an open-data strategy, whereby anonymized data notes and summaries were made accessible to the Royal Roads community. We hoped that this approach would enrich conversations about learning, teaching, research and service, as well as ensuring transparency of and engagement with our consultations and prototyping.

Loop 1

RESEARCH METHODS

Since the knowledge and experience of members of the community were critical to the successful outcome of this project, extensive consultations with them occurred from 2016 to 2018.

The first consultation was a 'Maker Day', an immersive, experiential and interactive design-thinking activity that called on participants to design and build a physical model (or diorama) as a metaphor for a revised Learning and Teaching Model (LTM). Typically, a metaphor is understood to be a representation of ideas or concepts in a tangible and often creative or imaginative way. Through the creation of metaphors, thinking becomes visible (Eisner, 1998), as well as ways to innovate practices and structures. The design-thinking process used during the Maker Day invited participants to consider what a new LTM at Royal Roads might look and feel like through the experience of creating and in doing so, cultivating an intentional mindset in themselves as they would in their students.

The Maker Day was followed by focus groups to more deeply understand participants' perspectives of the current LTM and what changes that they felt were needed. Focus groups were conducted with our:

- faculty and associate faculty;
- faculty who teach international students;
- staff;
- students;
- alumni.

Other sources of data included:

- feedback from school advisory councils;
- data from existing student and alumni surveys;
- brainstorming and feedback discussions at several campus-wide activities;
- interviews with faculty members with specialized knowledge;
- meetings with faculty members leading to RRU's application to become an Ashoka Changemaker campus;
- feedback from our LTRM webpage.

In addition, two special focus groups with faculty and staff explored how research at the university fit into the LTM. These led to research receiving a more prominent place in the model and its name change to the Learning, Teaching and Research Model (LTRM). Service was also explicitly recognized as indispensable to this work at Royal Roads.

Focus groups were audio-recorded and summary notes were made from the recordings. In addition, flipchart notes were made during each session. Notes were taken during interviews and photographs taken of the products of Maker Day.

DATA ANALYSIS

An initial thematic analysis was conducted using computer-assisted data analysis software (NVivo) to "search for themes and patterns" (Glesne, 2011, p. 187). The comments were coded into categories, which identified key themes. The summary notes and themes (derived from NVivo) were reviewed by the LTRM working group that created a high-level LTRM prototype. This prototype was then developed into a document for circulation and further feedback (Loop 2).

Loops 2 and 3

RESEARCH METHODS

Loops 2 and 3 involved circulating the draft prototype for feedback and revision. First, a simple survey was developed to gather feedback on the LTRM prototype from core faculty, associate faculty, staff, student and alumni. The survey asked the following:

1. Please tell us what resonates for you about the draft Learning, Teaching and Research Model.

2. Please tell us what, if anything, does not resonate for you in the draft Learning, Teaching and Research Model.

3. Is there anything that is included that you think should be taken for granted and be eliminated?

4. Is there anything that you think should be augmented that would help to distinguish the Royal Roads University learning, teaching and/or research experience from the standard expected of any university?

5. Is there anything we didn't ask about the draft Learning, Teaching and Research Model that you would like to share?

Invitations to participate were sent to all core faculty, associate faculty, staff, student and alumni with links to the electronic survey and the LTRM prototype. School advisory councils were also invited to provide feedback to the prototype.

The LTRM Working Group anticipates that there will be ongoing conversations and tweaks, depicted in Loop 3 of the design process.

DATA ANALYSIS

The LTRM Working Group reviewed both the raw survey results and a summary of themes based on the thematic analysis using NVivo data analysis software. The group discussed what resonated, and items that lacked clarity and needed more explanation. The group used this information to refine, revise and strengthen the LTRM, addressing specific issues identified in the data.

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