



Team-Based Learning:
Living our Model at Royal
Roads University Final
Research Report (Full)
With Support from
the Buttedahl and Skene
Learning and Teaching

Dr. Kathleen Manion, Trish Dyck, Dr. Sophia Palahicky, Nooreen Shah-Preusser, and Susan Thackeray (with Sarah Grant supporting the Literature Review)

*School of Humanitarian Studies, Student Services, and
Centre for Teaching and Educational Technologies*

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Summary

This research aimed to better understand the breadth and depth of team-based learning across Royal Roads University (RRU); both what is working and what could be improved. With this information, it is hoped that the findings from this research could further a dialogue about: the purpose of team-based learning in practice; the university's unique proposition; and recommendations for mechanisms to improve this form of learning. Teamwork is a central skill needed in modern, fast pace, diverse settings where actors are tackling complex social, environmental, and economic issues. RRU has a robust Learning, Teaching and Research Model (LTRM, 2018) that embraces team-based learning. As part of this research, the research team sought to get a better sense of what instructors, staff, and team coaches need to maximize the benefits of team-based learning and minimize the struggles. Focusing on practices that best support healthy team-based learning, this research explored the following: how different programs intentionally weave team-based learning into their programs; how instructors use team-based learning within the classroom; how instructional designers support faculty to maximize team-based learning; how assessments/assignments are designed with purpose; how team coaches and instructors mitigate conflict that arise within teams; and how team coaches support optimization of team processes. The research team included Dr. Kathleen Manion, Trish Dyck, Dr. Sophia Palahicky, Nooreen Shah-Preusser, Susan Thackeray, and Sarah Grant (as Research Assistant). In addition, Dr. Pamela Richardson also supported the work for a portion of the research period.

Project Goal and Specific Objectives

Anecdotally, students and graduates suggest that some of the richest transformative citizenship-building learning occurs within teams, and this is also where destructive conflicts can arise. As a

signature of the RRU's LTRM, this research demonstrated how to support effective, value-adding team processes and effective team-based learning. As stated earlier, effective teamwork is needed in modern, fast pace, diverse settings where actors are tackling complex social, environmental, and economic issues. Royal Roads University (RRU) has a robust Learning, Teaching and Research Model (LTRM, 2018) that embraces team-based learning. This action-oriented research project's specific objectives included exploring what the Royal Roads community has found to work and not work in the following areas: building teamwork into curriculum; building effective and resilient teams; managing team conflict; using teamwork to deepen learning and engage the learner; building team skill competencies; and understanding outcomes of team-based work. This project drew on the wider university community and asked community members to share their insights about what works and what does not work across these areas. Building on Kolb's Experiential Learning Loop (1984), the research built on reflecting and acting on our internal processes, including how the university supports team-based learning through team coaches, instructional design, and program leadership at the macro level across the university and at the micro level within specific classes. This research also identified and shared innovations that have been trialed and what areas students, instructors, or team coaches have struggled with. The research used mixed-methods, drawing on some traditional and non-traditional creative dialogue-based methods, including: a university-wide Shift and Share exercise (Liberating Structures, n.d.); a survey sent to all associate faculty, core faculty, and relevant staff at the university; interviews with key informants; and a participatory focus group, through an Interview Matrix. Alongside this data collection method, a literature review was completed. Two separate data analyses workshops were held to distill key emergent themes from the research findings and data gathered from the RRU community, as well as from the literature review. The findings from the two data analyses workshops were compared and synthesised into a final report. The RRU Research Ethics

Board (REB) approved this research and the researchers complied with Tri Council ethical research standards.

There were multiple ways of gathering data with a significant number of research participants, and the emergent themes were quite consistent across data sources. The data was drawn from RRU staff, core and associate faculty representing a range of roles, ages, schools, and experience with the university. These findings provided insight into the role team-based learning plays within the RRU teaching and learning environment and highlighted the impacts it has within the implementation of the LTRM. Participants illustrated that there was broad support across the RRU community for team-based learning and praise for the work of team coaches. Participants highlighted the multitude of ways in which team-based learning augmented learning and was an important element of teaching. Participants also noted the synergy of team-based learning with the LTRM imbedded into RRU's curriculum delivery.

In exploring how to improve the mechanisms to support team-based learning, research participants focused on navigating the challenges associated with team-based learning. The most problematic areas included: working to redress social loafing; unequal work distribution; personality and learning style conflicts; and designing appropriate team assessments (including ways to assess team process as well as outcome). These findings are consistent with the literature. While some ideas to tackle these issues were highlighted, a finding from this research is that more focus needs to be put into providing faculty and staff resources, tools, and processes to redress these kinds of issues and to develop curriculum in such a way to mitigate these issues from arising as often. As a few participants noted, this is exacerbated when one member of the team is facing undiagnosed or untreated mental health issues, highlighting the need to ensure good working relationships with student services.

Participants noted that some strategies, tools, and processes already exist in pockets across the university. As such, the research participants wanted to see increased awareness raised about the various support mechanisms for team-based learning that exist in the university, especially, team coach services. They also highlighted the benefits that could come from increasing training on team-based learning for faculty and associate faculty (on team processes, managing conflict, designing activities and team-based assessments).

Overall, participants felt that the university did a good job at maximising team-based learning. Participants also suggested the most impactful way of further imbedding the aims of the LTRM on team-based learning into the fabric of the university, would be to more fully and intentionally weave team-based learning into the design and delivery of curriculum and into the university structure as a whole. This could further maximize student success.

Literature Review – Context for Team-based Learning

Royal Roads University (RRU) employs a unique learning and teaching model (LTM) that outlines team-based learning as a core component supporting the commitment to deliver students who are “enhancing skills of collaboration, team facilitation, project management and conflict management,” (2013a, p. 16). Research on learning in teams in post-secondary educational institutions is growing quantitatively and qualitatively and indicates the need employers have for students to arrive in the workplace with the necessary team skills to navigate the complexity of teamwork in workplaces of today (Donia, O’Neill, & Brutus, 2017; McKean, Coburn, & MacLaine, 2016). Teamwork matters in healthcare, space exploration, aviation, oil and gas, military and in the corporate world. The reality is that teams are needed, they are here to stay, and we need to know a lot

more about how to design and deploy them to achieve their full potential (O'Neill & Salas, 2018, p. 326).

Benefits and Challenges of Learning in teams

The benefits of collaborative learning have been consistently outlined in numerous studies and several meta analyses (Oakley et al. 2004; Johnson, Johnson, & Stanne, 2000; Springer, Stanne, & Donovan, 1997; Terenzini, Cabrera, Colbec, Parente, & Bjorkland, 2001). Team-based learning supports skills development in: work ethic, problem solving, conflict resolution, contributing ideas, interpersonal skills, communication, collaboration and project management (Baker, 2008; Oakley, Brent, Felder, & Elhadj, 2004, Hart & Associates, 2010; Willey & Gardner, 2009). As an active learning strategy this method of learning continues to be an area that is receiving significant attention in the academic fields (Hassanien, 2008, p. 18). Hassanien (2008) further identifies the “benefits of team learning as:

- the development of critical thinking;
- the development of a range of generic skills, such as organisation, negotiation, delegation, teamwork, cooperation, conflict resolution, time management, leadership and following instructions;
- social interaction opportunity for students;
- means for exchanging knowledge and using the expertise of one another;
- combination of expertise;
- opportunities for students to give greater depth and breadth to their projects;
- sharing responsibility to reduce assessment fear; and
- moral support and motivation” (pp. 21-22).

Despite the variety of benefits for team learning, design and planning of where and when to include team-based activities and assessments needs to be considered. According to Neil and DeFranco (2015), “Team projects and activities should be included only where they are most meaningful, and they must be designed and facilitated carefully...” to ensure students benefit from what team learning offers (Neil & DeFranco, 2015).

Online and face-to-face teams can enhance learning by increasing deeper understanding of concepts, especially with more complex tasks requiring higher level thinking skills (MacNeil, Telner, Sparaggis-Agaliotis, & Hanna, 2014, Jackson et al., 2014a). In addition, teamwork can build skills such as communication, shared vision, leadership, and negotiation. Jackson et al. (2014a) also list team spirit as a positive outcome that leads to other essential teamwork skills such as negotiation, accountability, communication, and leadership. Furthermore, online group work provides opportunities for the co-construction of knowledge (Bruffee, 1999; Morgan, Williams, Cameron, & Wade, 2014; Chang & Kang, 2016).

There is evidence to suggest that teams succeed when they feel part of a community and commit to the team learning environment (Van den Bossche Gijsselaers, Segers, & Kirschner, 2006). Motivation can be enhanced when instructors describe the benefits, anticipated outcomes, skills, competencies (Roberts & McInnerney, 2007), transparent learning goals (Brindley et al., 2009), and an outline of clear team process (Felder & Elhadj, 2004) on how to effectively collaborate with others. Some suggest that instructor-directed logistics can free up student time to focus on team tasks; however, Brindley et al. (2009) suggests teams need autonomy to manage schedules and tasks on their own as part of the learning process.

Yet on some occasions, students resist the idea of group work and team learning because of prior negative experiences and unequal distribution of workload (Chang & Kang, 2016; Burdett &

Hastie, 2009). There are many challenges of team-based learning, common ones are tied to perceptions of social loafing and free-riding behaviours, leading to student frustration about unequal contribution.

Team Cohesion and Success

Simply putting people in groups does not guarantee that team learning, or team success will take place (Baker, 2008; Brindley et al., 2009; Hughes & Jones, 2011; Roschelle & Teasley, 1995; Salas, Sims, and Burke, 2005; Van den Bossche et al., 2006). Teams must be supported, provided with tools and prepared on how to work in teams throughout a program for success in team-based learning extending beyond their educational experience (Ekblaw, 2016; Baker, 2008; Kemery & Stickney, 2014; Oakley et al., 2004; Riebe, Roepen, Santarelli, Marchioro, 2010; Watson, Johnson, & Zgourides, 2002). McKendall (2000) highlighted the importance of understanding how to function in a team and how to manage group problems that may arise. Palsolé and Awalt (2008) suggested early team-building exercises identifying strengths and weaknesses within teams can support success and ongoing assessment can keep them on track (Brindley et al., 2009; Coll, Rochera, de Gispert, & Díaz-Barriga, 2013; Palsolé & Awalt, 2008). Brindley et al. (2009) and Coll, Rochera, de Gispert, and Díaz-Barriga (2013) suggested that consistent monitoring and timely instructor feedback on tasks and participation helps build relationships within teams. Hunter et al. (2010) also found that regular meetings between teams and a coach helped facilitate team cohesion and provided the space to address any issues within the team. Talking about team processes and debriefing positively impacted team member attitudes (Gaumer et al., 2015). Overall, team cohesion and individual scores were positively associated with team scores (Thompson et al., 2015). Teams can also benefit from having allocated team tasks, for instance, students express a desire to have one team leader who had formal leadership responsibilities and power (Saghafian, & O'Neill, 2018; Ng, 2008). Most students enjoyed the exposure to different

knowledge and skills from other group members (Bruffee, 1999; Chang & Kang, 2016; Stahl et al., 2010). Generally, students perceive that teamwork and collaborative learning required a deeper approach to learning than more traditional methods (Volkov & Volkov, 2015). In supporting that deeper approach, Mathieu and Rapp (2008) summarized that in order to maximize team effectiveness, and ultimately team performance, teams must take time out early in a team's life cycle to establish both task and people strategies (p. 100).

When team-based learning is unfamiliar, resistance from students (Morris, 2016; Lane, 2008; Palsolé & Aswalt, 2008) and instructors (Gullo, Ha, Cook, 2015; Morris, 2016, Remington et al., 2015) emerges from those who would rather work alone. Negative attitudes can be mitigated by informing students of the rationale for a team approach to learning as well as the goals or course outcomes (Mennenga, 2015).

Online learning presents more complexity as students who take distance courses often do so because of the flexibility of when they can complete tasks and participate in activities. The divergent schedules make this challenging, but also not having face-to-face contact can make it easier to shirk responsibility for each other. Providing expanded time for discussions and completing tasks was found to be necessary in asynchronous settings (Palsolé & Awalt, 2008). Additionally, Oakley et al. (2004) argued that bringing students together on an assignment does not necessarily constitute teamwork.

A group of students coming together to work on an assignment is not the same thing as a well-functioning team. The students in any given group may sometimes work together, but they may also be inclined to work independently, simply pooling their work with no discussion, and they may spend a great deal of time in conflict over work-related or personal issues. In contrast, members of an effective team always work together - sometimes physically together and sometimes apart, but constantly aware of

who is doing what. They take different roles and responsibilities, help one another to the greatest possible extent, resolve disagreements amicably, and keep personal issues (which may occur when any collection of people work together) from interfering with the team functioning. (Oakley et al., 2004, p. 13).

Further to this and for final consideration, the significance of psychological safety is emerging as a prominent teamwork variable influencing high performance teamwork (O'Neill & Salas, 2018, Edmondson, 1999).

Managing Group and Individual Expectations

Group dynamics must be understood and managed by both students and instructors in any team learning environment (Oakley et al., 2004; Garland et al., 2006). Neill and DeFranco (2016) noted that team-based learning needs to include meaningful activities that add value beyond their inherent costs. Chang and Kang (2016) found that coordinating and communicating with all members of a group made it challenging to assign work and schedule meeting times. The lack of motivation of some students to engage with the team was also difficult and many team members preferred to complete work on their own rather than collaborate with others. Additionally, some researchers explain that managing the group was challenging and took additional time (Brindley et al., 2009; Chang & Kang, 2016). Conversely, Brindley et al. (2009) states that students need the freedom to establish their own group norms, routines, and work processes. Key messages from research shows that the placement of students in teams and expecting cooperation will not naturally promote collaborative learning. Students require coaching in the interpersonal skills that enhance cooperation in a manner that supports their learning and achievement. This guidance must be an ongoing process and not restricted to a single session (Hassanien, 2006, p. 35).

A core component of team development is grounded in the development of a team agreement. Levine (2002) outlined that “crafting an agreement for results at the beginning of a project provides the structure that is essential for success” (Introduction, Section 4, para. 4). The context of basing relationship behaviours on a covenant [agreement] will support collaborations to succeed. Setting team norms supports assurances that all members are on the same page with regards to: work standards, communication, and facilitation (Riebe et al., 2010). Many authors articulated the varied benefits of team contracts, particularly in students’ words, including building relevant expectations, team cohesion, and pre-empting problems (Messersmith, 2015; Hu, 2015; Oakley et al., 2004; Balan, Clark, & Restall, 2015). It is clear that first steps in turning groups into effective teams is the commitment to set out a clear set of guidelines for team functioning and to have the members formulate a common set of expectations of one another (Oakley et al., 2004; Levine, 2002).

Conflict

Research in collaborative learning discusses the benefits, and even the necessity, of conflict in the learning process, for instance, in the forming, norming, storming, and performing model espoused by Tuckman and Jensen (1977). It is infrequent that a student does not run into problems with one or more of its members. Common problems include: members who do not do their share of the work, domineering team members, resistant team members as well as members having differing goals (Oakley et al., 2004, p. 15). When such situations occur, some students have strong inhibitions against speaking out about problems while avoiding unpleasantness (p. 15).

Collaborative learning emphasizes the process of working simultaneously with others on a joint task (Panitz, 1999; Laal & Laal, 2012) rather than solely on the product of the work. The process-focused approach of team collaboration means that failing may still result in what Kapur (2008; 2012) calls productive failure. In this way, learners can develop necessary skills and competencies regardless

of whether they achieve a desired outcome. Similarly, Roschelle and Teasley (1995) described a joint problem space in which groups of learners offer different viewpoints, thereby providing opportunities for evaluation, analysis, argumentation, and negotiation between students (Azmitia, 2000; Clark et al., 2003; Gokhale, 1995). Conflicting ideas are inherent in this cyclical process as learners work together to create a shared understanding of concepts and accomplish a common goal (Kozar, 2010; Laal & Laal, 2012; Summers, 2006). Adding to this, Elbers and Streefland (2000) suggested that in collaborative learning, knowledge is diffused and created within *cycles of argumentation*. Within these cycles, team members present ideas and critically discuss them to come to a shared understanding (Chin & Osborne, 2010; Elbers & Streefland, 2000).

Riebe et al. (2010) and Scott-Ladd and Chan (2008) noted that communication and conflict resolution skills are developed through teamwork activities. Santos and Passos (2013) found that conflict has dysfunctional effects on team effectiveness. However, they also found that the similarity of team mental models reduced conflict, which they suggest is because shared understanding serves to mediate disagreements between team members. Relationship conflict in teams may have negative effects on team satisfaction and performance (de Wit et al., 2012; Lau & Cobb, 2010; Salas & McLarnon, 2017). Other studies have found that conflict can be advantageous in the learning process (Riebe et al., 2010; Kapur 2008; Kapur 2012; Roschelle & Teasley, 1995). Riebe et al. (2010) and Tjosvold, Yu, and Hui (2004) found that conflict led to learning experiences and growth with students reporting it to be valuable for future team situations.

Communication in teams

The structure of discourse in collaborative environments such as team learning outlines various interactions that take place in both face-to-face and technology-mediated environments. These include: turn taking, listening, allowing partner think time, providing feedback, and offering support and

encouragement (Chen, et al, 2010; Falloon, 2015; Fawcett & Garton, 2005; Dillenbourg, 1999). In addition to the need for social talk and various interactions, justifying one's ideas, perspective taking, negotiation, conflict, and repair have also been identified and integral to the process of constructing a shared understanding and contributes to higher achievement (Dillenbourg et al., 1995; Fawcett & Garton, 2005; Howe & Mercer, 2007).

While online environments may make communicating easier for students who are uncomfortable with face-to-face settings, it also posed a challenge when students are able to mask feelings and conversations lacked non-verbal cues when communicating asynchronously (McGrath 1990; Ortega et al., 2010; Saghafian, & O'Neill, 2018; Straus & McGrath, 1994). Saghafian and O'Neill (2018) found that online teams had more flexibility in schedules than face-to-face students did, managing communication and constantly staying connected was challenging. Adult learners may choose online courses because they believe that they will be able to work alone more (Favor & Kulp, 2015). Online students prefer not to work in groups, if given the choice (Adam & Finegold, 2006).

As team communication tools continue to expand “social networks give us a nuanced understanding of the social fabric binding team members to each other and to individuals outside the team. It is well recognized that investigating patterns of social networks could greatly enrich our understanding of high-performance teamwork” (O'Neill and Salas, 2018, p. 328).

Team Formation

Group formation is a critical component of learning in teams. Intentional and strategic design to incorporate diversity of skills and knowledge has benefits, as well as background, experience, age, gender, and emotional intelligence (Kibble et al., 2016; Lane, 2008; Oakley et al., 2004; Volkov & Volkov, 2015) which can promote differing perspectives, innovative ideas, and unique approaches to problems and tasks (Garland et al., 2006; Smith & Dirkx, 2007). This mimics real world situations

(Oakley et al., 2004). Instructor-selected rather than student-selected teams appear to be more effective (Michaelsen & Sweet, 2011; Garland et al., 2006; Kibble et al., 2016; Jackson, Sibson, & Riebe, 2014b; Hunter, Vickery, & Smith, 2010; Ng, 2008).

Assessment

Assessing end results and individual participation is important; however, doing so does not necessarily provide feedback about the interactions of team members or specific task-related behaviours that contribute to group success (Baker, 2008; Hughes & Jones, 2011; Willey & Freeman, 2006). Delaney et al. (2013) and others argued that assessment of team learning should include both process and product-focused outcomes. Process-focused assessment emphasizes the desired teamwork skills (Willey & Freeman, 2006), while providing accountability for all team members (Burdett & Hastie, 2009; D'Alessandro & Volet, 2012; Delaney et al., 2013) and is necessary to facilitate collaboration from all members of a team (Riebe et al., 2016). Salas et al., (2005) stated that team effectiveness encompasses not only the outcome that was delivered by the team but also how the team interacted (i.e., team processes, teamwork) to achieve that outcome. Assessing team process often includes peer assessment. Lee and Lim (2012) explained that students evaluate their peers on contributions (managerial, procedural, and social) that an instructor would not easily be able to observe. From these peer evaluations, many suggest that instructors can then provide feedback to individuals so that they may learn from their experiences and the perceptions of others (Hughes & Jones, 2011; Oakley et al., 2004). Wang (2011) also suggested that instructors' evaluations can then focus on the outcome or product of teaming rather than on the teaming itself.

To avoid free-riding and social loafing, and to encourage equal contributions from all team members, instructors can inform students that they might receive different grades based on their contributions (Riebe et al., 2016; Roberts & McInnerney, 2007; Oakley et al., 2004). Morgan et al.

(2014) suggested, “a mechanism to individualize grades, which will allow for points to be adjusted when participation in a group is noticeably uneven or complaints regarding participation surface” (p. 40). To maximize the benefits, instructors need to announce that peer evaluation results will be included in final grades to encourage active interaction of all team members (Lee & Lim, 2012, p. 122). Kibble et al. (2016) and Donia, O’Neill, and Brutus (2018) presented the idea of a graded peer review process to ensure students come prepared and are good citizens within their teams.

Summary

Collaborative learning continues to demonstrate the strong positive effects on most learning outcomes. However, putting students into teams is not an adequate step for achieving full benefit of learning. Steps need to be taken to ensure that the teams develop the characteristics associated with high performing teams otherwise the learning experience may be ineffective (Oakley et al., 2004, p. 21). Also, as Hassanien (2008) suggested, “previous research studies reveal that students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats” (as cited in Cockrell et al., 2000; Johnson & Johnson, 2000).

It is readily apparent from research that there is an abundance of value that students can gain from their teamwork experience. These span across behavioural skills to the development of intellectual and personal skills. This indicates that teamwork provides a valuable and unique experience that enhances students’ learning and achievement. (Hassanien, 2008, Oakley et al, 2004; Salas, 2005; O’Neill et al., 2017).

Methodology

Preceding the research, two non-data gathering activities supported the research project, including a university wide Shift and Share exercise (Liberating Structures, n.d.) and a workshop with like-minded university members at a BC Campus conference. These provided some context for the

need to better understand the Royal Roads University (RRU) team-based learning model, the “secret sauce” for successful team processes, as well as what challenges exist and how they are addressed across the university. Common comments raised in both forums included questions about how to tackle social loafing and how to assess team process effectively.

This research emerged in preparation for a series exploring how we, as a university community, were living our model and team-based learning was one of the topics of the Living Our Model series. To explore this, we created a research project, secured REB approval, and obtained a grant from the Buttedahl and Skene Learning and Teaching Innovation fund. This action-oriented research explored and captured how team-based learning was happening around RRU. This research sought to demonstrate how we live our model supporting actively engaged students to embrace diversity and team-based learning. Building on Kolb's Experiential Learning Loop (1984), the research built on reflecting and acting on RRU's processes, including how the university supported team-based learning through team coaches, instructional design, and program leadership at the macro level across the university and at the micro level within specific classes. It also identified and shared innovations that have been trialed and what areas students, instructors, or team coaches struggled with.

The research sought to articulate how team-based learning happens and to identify the struggles and challenges. The action-oriented research used Rapid-Feedback Evaluation to gain quality insight of a social process in a short period of time. This research drew on the inherent expertise within staff, team coaches, and faculty. The research used mixed-methods, drawing on some traditional and non-traditional creative dialogue-based methods. This project gathered information from the RRU community about what works with team-based learning (Creswell, 2013). This was initially done via the Living Our Model workshop through an interactive, participatory forum, a two-hour session with members of the community (i.e. instructional designers, core and associate faculty, team coaches and

other interested staff members) with the key theme of Team-based Learning. The session was a participatory laboratory that gathered key insights from participants on what works and what could be improved or avoided in team-based learning at RRU. Using Shift and Share (Liberating Structure, n.d.), participants were guided through a facilitated dialogue to generate idea-swapping about the various aspects of team processes. These ideas were gathered, and participants were invited to share their thoughts on team-based learning with Photo Voice. This was followed by a survey sent to all associate faculty, core faculty, and relevant staff at the university. Based on the results, interviews were designed. Based on the results of the interviews, further questions were formulated and included in a participatory focus group, through an Interview Matrix. Alongside this data collection method, a literature review was completed. Two separate data analyses workshops were held to distill key emergent themes from the research findings and data gathered from the RRU community, as well as from the literature review. The findings from the two data analyses workshops were compared and synthesised into a final report. The RRU Research Ethics Board (REB) approved this research and the researchers complied with Tri Council ethical research standards.

Study Limitations

This was a small study with a concentrated focus. The total number of participants across the data collection is difficult to ascertain as there were some overlapping participants. However, it is likely there were at least 80 different participants, which provides a good representation across the university. As participants were self-selecting, those most resistant to team-based learning could have opted out of the research. This means their voice is not well represented. Students were also not included in this initial phase (Phase 1) of the research. That represents a limitation to the study, which will be redressed in a subsequent study (Phase 2).

The data were largely qualitative in nature and not generalizable. In addition, the research team were actively involved in the development and implementation of team-based learning and were known to the participants. This is a positive, as the results could be acted on immediately, but it also offers a limitation that needs to be stated. As the research team was known to participants, this may have influenced the data participants supplied.

Findings

This research reached data saturation. There were multiple ways of gathering data with a significant number of research participants, and the emergent themes were quite consistent across data sources. The following section provides some overview of the different qualitative and quantitative findings. The data was drawn from RRU staff, core and associate faculty, a literature review, a survey (with 60 responses), six individual qualitative interviews, an interview matrix session with 12 participants and data drawn from two workshops using FlipGrid micro-questions and various other participant-derived, dialogue-based activities.

Key Learning from the Living our Model Workshop

One of the key findings from the Living our Model Shift and Share, was that there was a need for further communication. This pertained to ensuring that students, faculty, program staff and staff in the Centre for Teaching and Educational Technologies (CTET) were aware of the various strategies that would support team-based learning, including collaboration between programs, CTET, and team coaches. It was also noted that it was important to communicate what tools and resources are available from both CTET and team coaches that could be shared, implemented, and utilized. Some associate faculty noted that they felt alienated from the process and university staff have a responsibility to fill this void. This would help to gain buy in from associate faculty on the need for team-based learning.

Communication was also raised in relation to the benefit of sharing information about issues that appear in classes with various departments in order to resolve problems before they emerge or escalate (while maintaining individual privacy).

A variety of models for forming teams were discussed. Similarly, several team forming processes were raised, as well as reflection points for teams. Team assignments were also a topic of discussion. Hence, assessing the assignments were discussed. Further, participants discussed the importance of being mindful of when team assignments were used in a course and in the trajectory of the program. Program mapping was discussed as a mechanism for building in a process for exploring the role of teamwork across a program. This provided an opportunity to design, plan, and deliver a focused, scaffolded, supported structure that team coaches, program staff and instructional designers could facilitate. Participants also highlighted the importance of building in variability in the process across the program, as well as maintaining consistency. This tension is important to maximize learning opportunities. Further, participants noted the benefit of as well as ensuring assignments were meaningful, appropriately complex, and had real world applicability.

Team processes were also discussed by participants and best practices were shared, including:

- using team contracts/agreements;
- teaching team processes early on;
- explaining the objectives and expectations of team processes clearly;
- building in inclusivity and dialogue in teams to work as mechanism for soliciting ideas;
- setting up the classroom or virtual space to support team-based learning; and
- designing team activities in such a way that they discourage individuals doing their own thing and cobbling the final product together.

Lastly, participants noted a tension in developing team processes within a cohort model yet having a small number of students popping in and out of programs. One issue that was raised in this forum as well as subsequent ones, was the communication overload that some online students face with multiple team and class forums.

In looking at the support CTET can and does provide for teamwork, participants noted the following: providing IT tools and instructional tools to support team-based work, supporting the design of when team projects are used, how to set them up and how to assess them, as well as providing exemplars.

There was a great deal of discussion on the support of team coaches. Participants suggested that the benefits of having this service was evident. While some team coaching support is already provided to some programs, additional support specifically in the following areas in all programs were indicated:

- communication and training on team processes;
- early intervention with conflict;
- support for good intra-team communication;
- individual and team coaching;
- support for instructors; as well as
- building a repository for relevant tools.

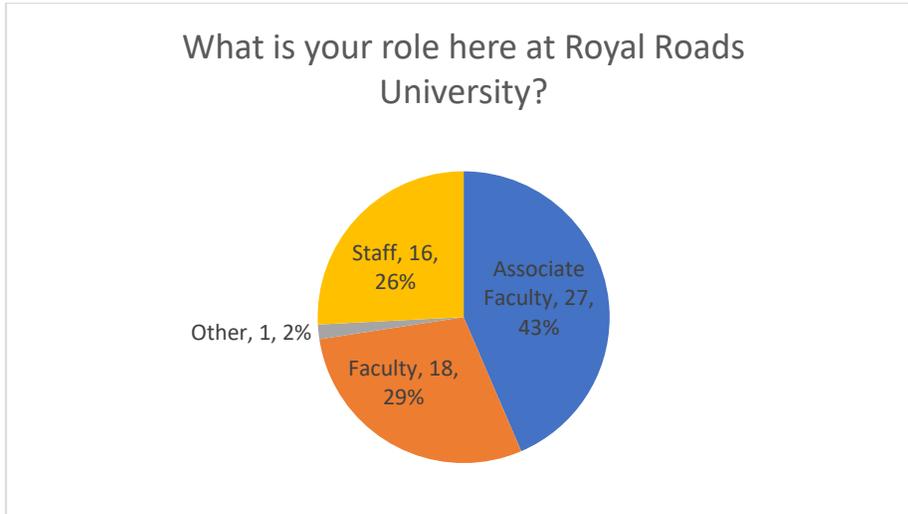
The main emergent message from the data about what needs to be done next with team-based learning at RRU is to focus on scaffolding team-based learning through the various programs.

Key Findings from Survey

The survey included both quantitative and qualitative data. The survey provided some useful comments and insights across several factors regarding team-based learning. Participants (n=62)

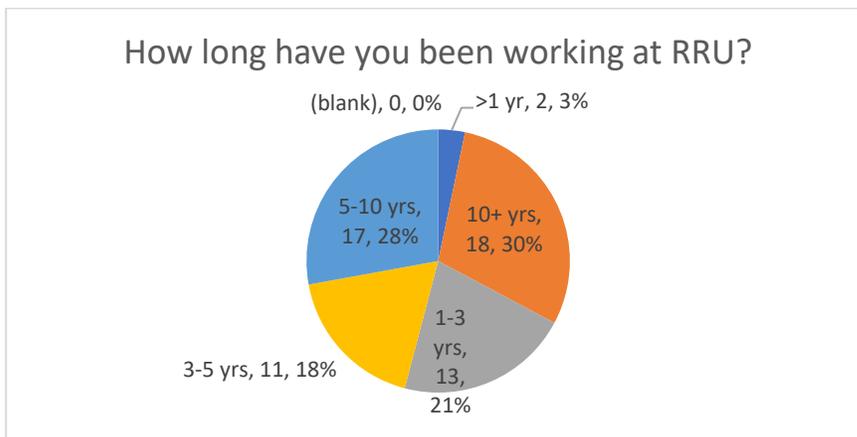
represented a good range of roles and experience at RRU giving us some confidence about the results. Of 62 survey participants, the Figures 1 and 2 illustrate the diversity of respondents.

FIGURE 1 – ROLE AT UNIVERSITY



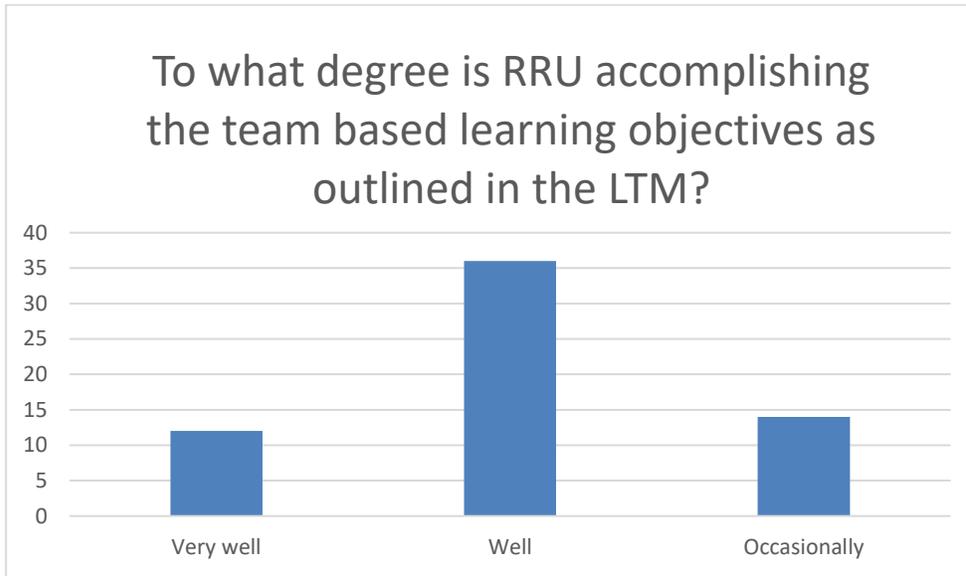
Of the staff, a broad range of positions were represented, including managers, team coaches, program associates, and coordinators and CTET and Student Services. We also had good representation across participants' length of time working with RRU.

FIGURE 2- TIME AT UNIVERSITY



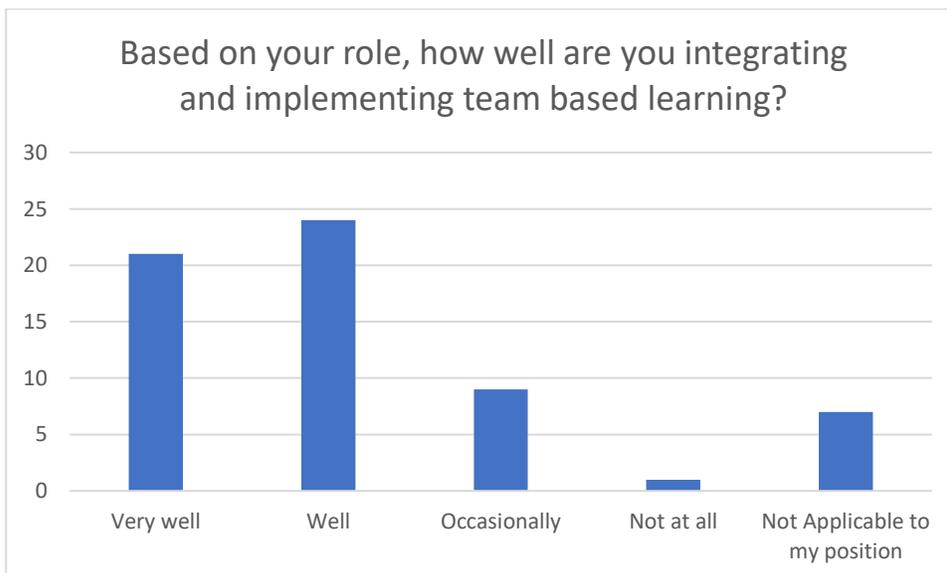
77% of participants suggested that RRU is implementing team-based learning as outlined in the Learning and Teaching Model (LTM) well or very well and 78% suggested RRU was effective or very effective in implementing and integrating team processes (see Figure 3).

FIGURE 3- MEETING LEARNING OBJECTIVES



As shown in Figure 4, there was more variability in those suggesting that they were implementing team-based learning in their role at Royal Roads University.

FIGURE 4- INTEGRATION AND IMPLEMENTATION OF TEAM LEARNING



There was general positive regard for the support of team-based learning across the university (see Figure 5). There was support for the work of the team coaches, including requests to expand the team coach service. One participant highlighted the benefits of having team coaching integrated into programs. Figures 6 and 7 illustrate the specific areas that are being used across the university by participants. Within the short answers, participants suggested that the university needed to better communicate what services exist to support team-based learning and to improve the consistency of access across programs, both in terms of work of CTET and team coaches.

FIGURE 5- EFFECTIVENESS OF INTEGRATION OF TEAM-BASED LEARNING

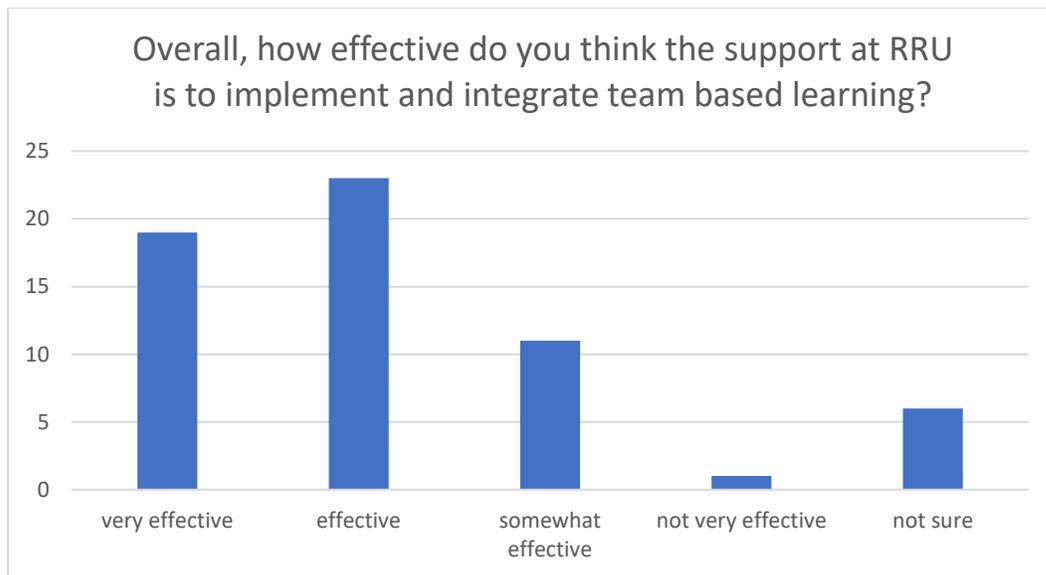
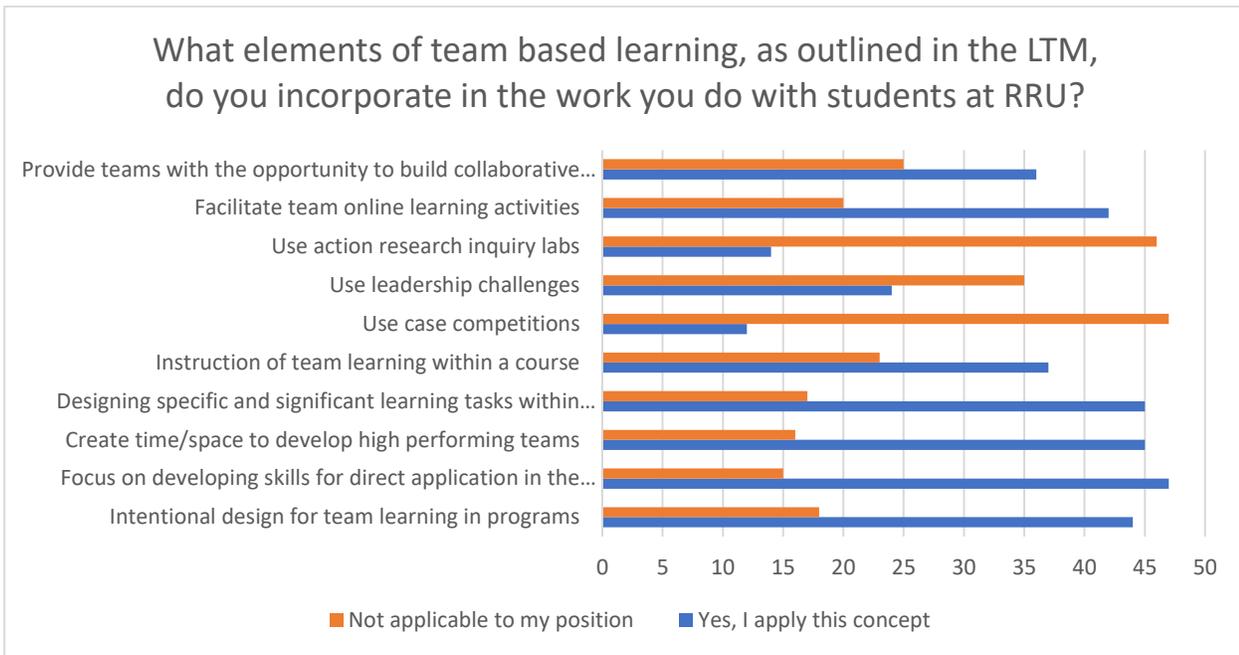


FIGURE 6- USE OF TEAM-BASED LEARNING SUPPORT



In exploring the types of support, tools, and processes respondents utilize, Figures 6, 7 and 8 provide useful insight.

FIGURE 7 - SPECIFIC TEAM BASED INTERVENTIONS

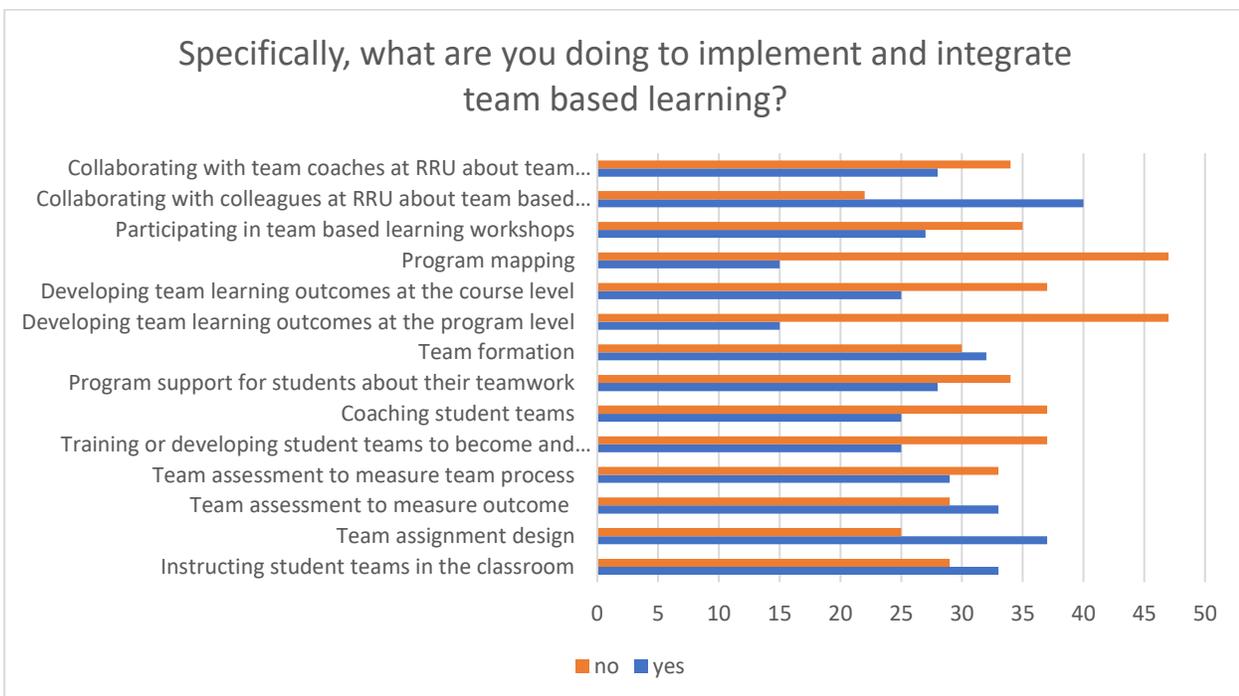


FIGURE 8 - KEY PROCESSES FOR SUCCESS

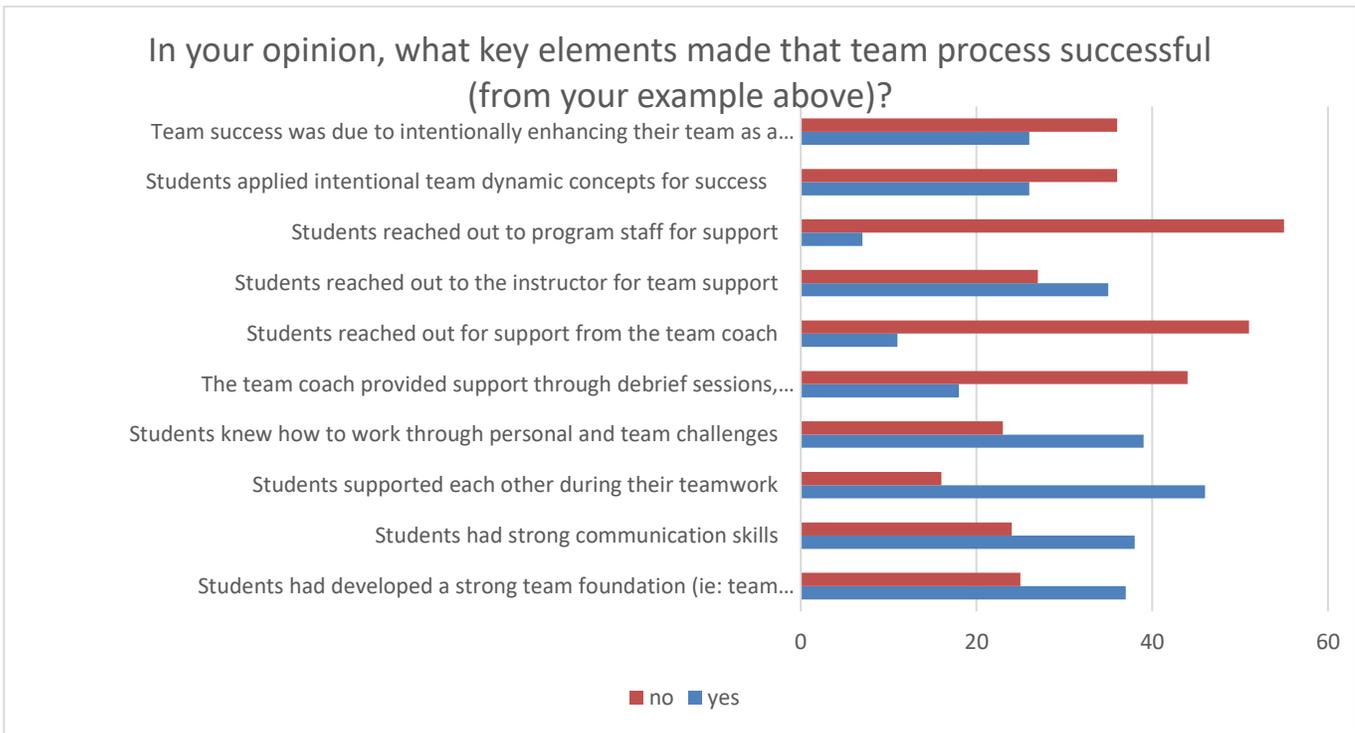
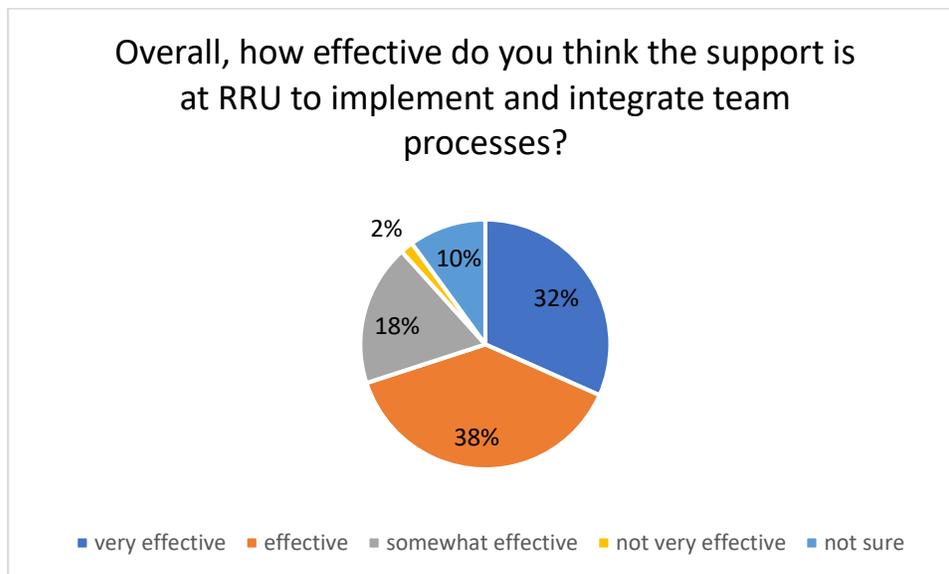


Figure 9 shows the general acknowledgement for the level of support provided by the university.

FIGURE 9 - EFFECTIVENESS OF TEAM-BASED LEARNING SUPPORT



Figures 10,11, and 12 provide a more detailed exploration of what kinds of support participants were drawing on from specific areas of the university, i.e. CTET, programs or team coaches. The survey provided some insight into the need to better promote the ability of CTET to support program staff and faculty to design team processes. This could include program mapping which can highlight the importance of teamwork throughout a program and help to identify optimal assessments, weightings, assignments, tools, but also be used to begin discussions on whether assignments should be focused on individual or team learning. The survey also raised the suggestion that it may be useful to provide more training on team-based teaching for faculty and associate faculty

FIGURE 10 – TEAM COACH SUPPORT RECEIVED

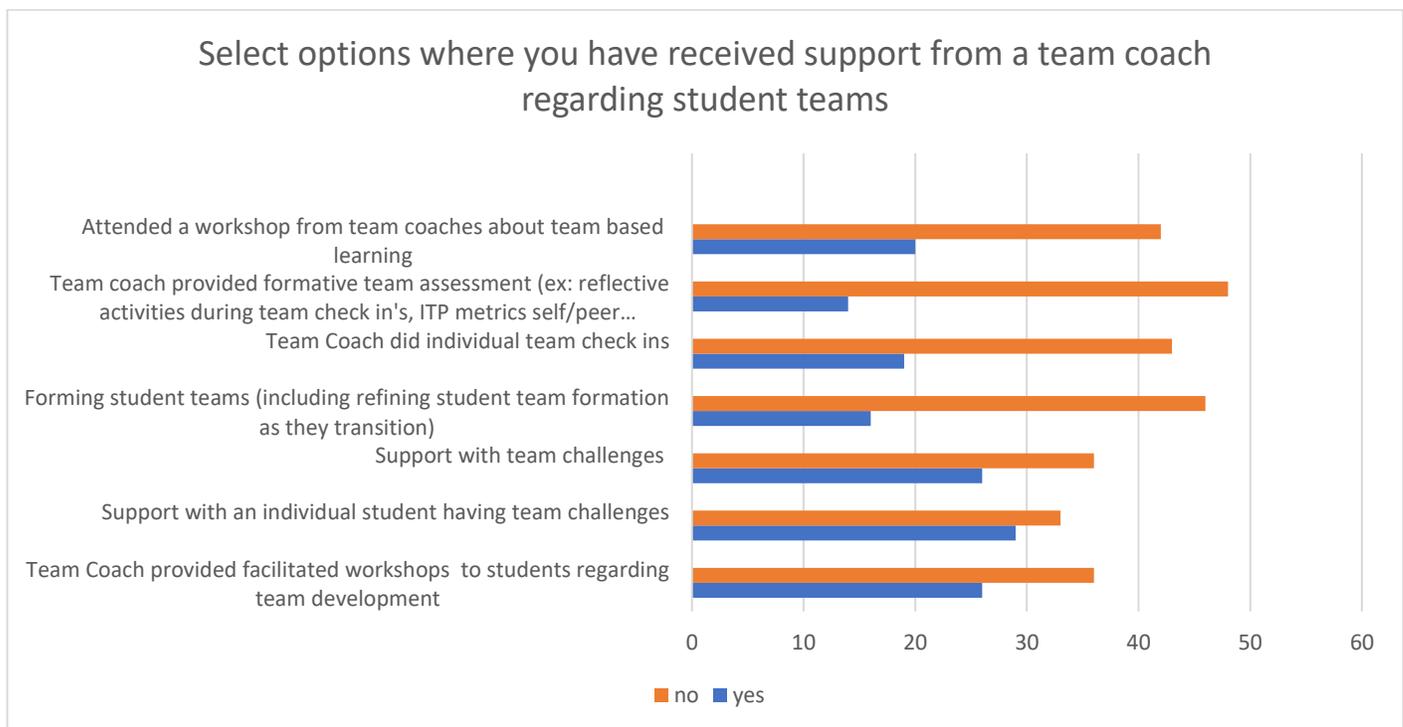


FIGURE 11 - PROGRAM SUPPORT

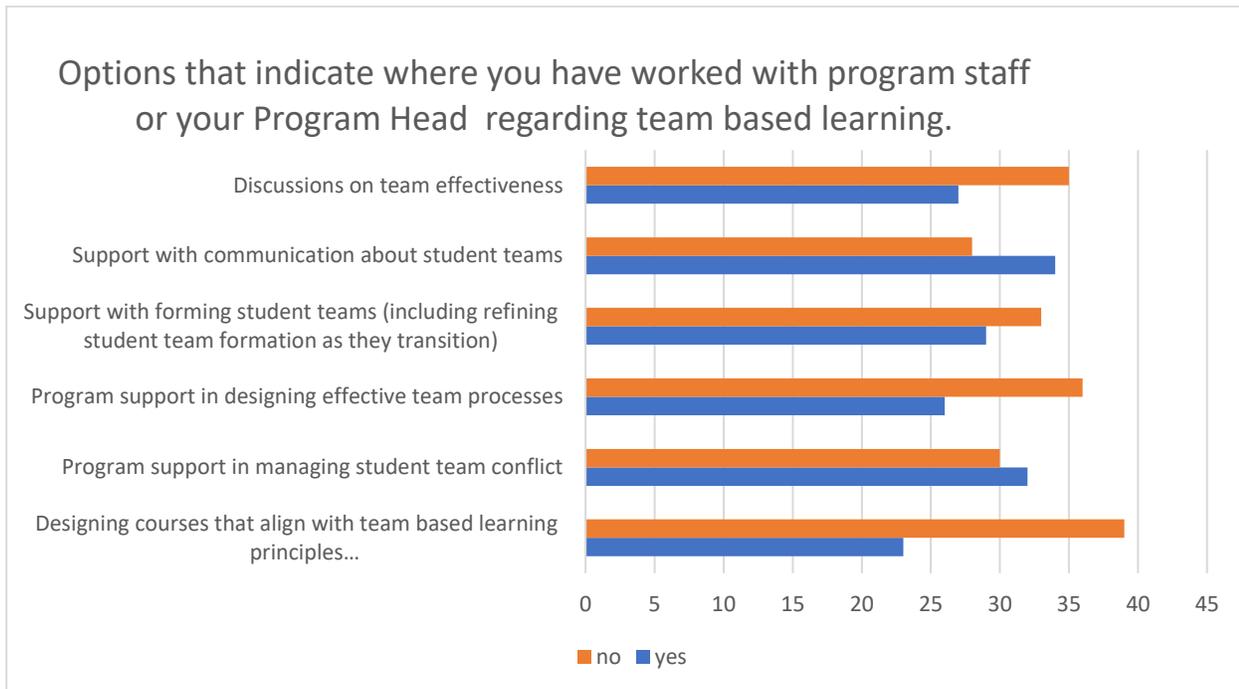
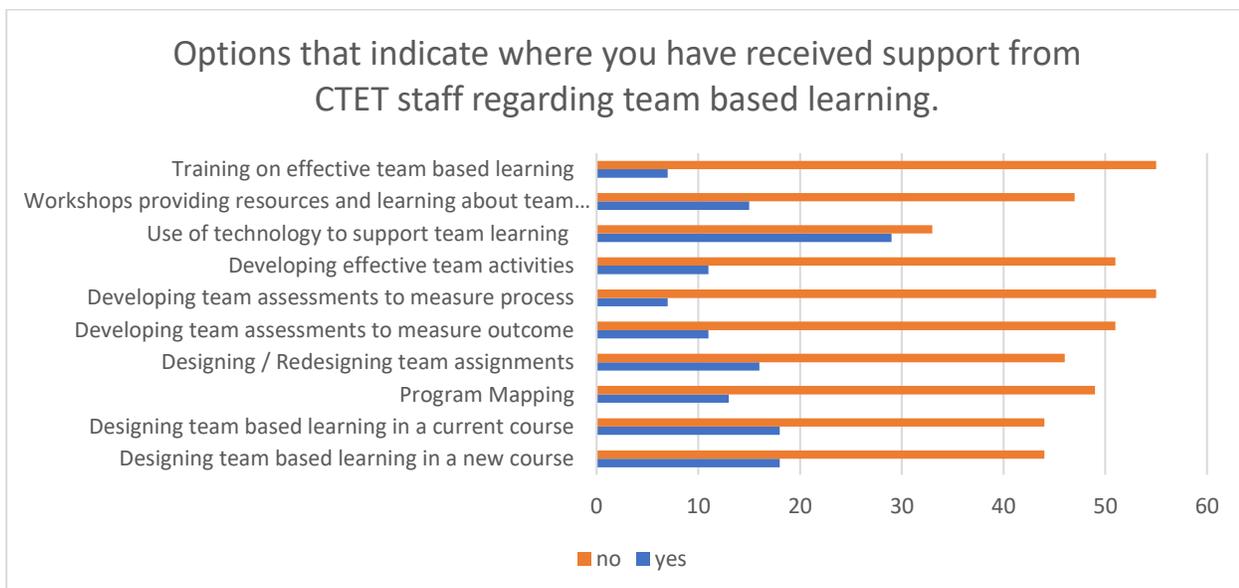


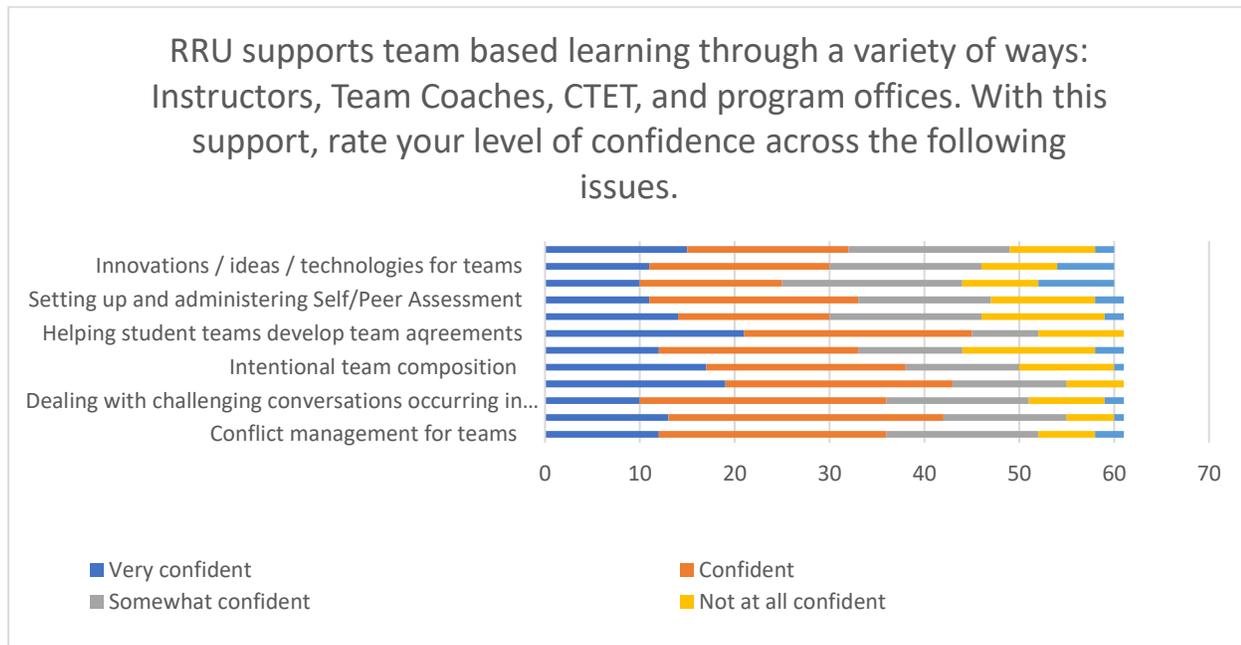
FIGURE 12 - CTET SUPPORT



Lastly, Figure 13 highlights the level of confidence participants had in dealing with issues in team-based learning with whatever support they were drawing on. Key areas where participants were less comfortable and could use more training were in navigating conflict within teams and assessing

team processes. The most common support that participants used from CTET were in use of technology to support teams, designing team-based learning in a new course or a current course. There may be space to further enhance their expertise.

FIGURE 13 - LEVEL OF CONFIDENCE WITH TEAM TOOLS, SUPPORTS, ISSUES



In exploring the qualitative data for the survey, at the individual team level, some key processes that supported good team experiences were highlighted by participants, including using team agreements, drawing on diversity of team assignments, avoiding poor design, measuring team process as well as outcome, focusing on real impact, beginning instruction with good tools, and integrating reflection into team processes. Another issue that was highlighted was the need to scaffold team skills and information to ensure good team processes. It appears that key issues that frustrated participants on team-based learning were social loafing, differing student priorities and commitment, and a perception of elevating poor students, or absent members. Another issue that arose was the need to combat pre-existing negative perceptions of teamwork. It was also noted that we need to know more about why teams experiencing problems do not reach out for support or why they simply “suck it up” or fake

competencies. Moving forward, a focus on tools for measuring team process are wanted, as are safe spaces to embrace diversity. Further, one participant suggested that we need to provide space for risk taking (both for students and instructors).

Key Findings from the Interviews

The interview schedule was developed based on the initial analysis of the Shift and Share and survey data to further explore unanswered questions. The interviews were coded separately by the research team and then coded collectively under five key areas: 1) issues/conflicts within student teams; 2) university systems; 3) recommendations from respondents to improve team-based learning; 4) ideas for better communication on team-based learning across the university; and 5) tools or ideas for practice. Interviewees discussed several system wide issues that have resonance for the optimization of team-based learning.

Systems

Several interviewees discussed ideas related to answering why team-based learning is a relevant and effective teaching model and why it is used. The apparent benefits that they raised included: when provided a safe environment, they allow students to experience vulnerability and to step outside their comfort zones; it allowed classes to draw on inherent diversity; and it modeled a professional (or personal) real world experience.

They also highlighted the importance of balancing learning preferences. Support for team-based learning thereby, according to participants, requires instructors to foster a safe learning environment and adhere to and enforce policies, procedures, and practices that support student teams, including those processes that support student accountability within their teams.

Participants also noted the importance of structural issues needed to support effective and efficient team-based learning including: ensuring we think deeply about how team-based learning is

structured; providing instructors training on how to support teamwork, including how to draw on diversity; and enabling students to draw on their own agency within a team environment. Participants also noted the importance of prioritising policies, procedures, and practices that really ensure team-based learning is a priority in institutional design. If team-based learning is an important element of the LTRM, it needs to be carefully integrated (structurally) and be well articulated to the RRU community. It must be part of the expectation of students and faculty.

Respondents noted the overarching values of team-based learning, including that it honours diversity, collaboration, creativity, innovation, respect, commitment, it builds stability, and it is also well aligned with a cohort model. Respondents discussed the importance of the university providing team learning environments, with the appropriate support, as well as having a consistent program support, including from the program head. Several respondents noted the appreciation of the support provided by team coaches, but also the need to ensure they are appropriately funded and staffed to offer consistent support across all programs. This may require an expansion of services.

In thinking through the university wide question about team-based learning, several points arose, including the importance of good design of courses and assessment. Respondents noted the relevance of programs having a good idea of when to include a team-based assignment in a program and within a course, to ensure that it meets a learning outcome appropriately. Much discussion was also had on the importance of being able to assess team process as well as outcome in team-based projects. This would be more aligned with the strength of the university's approach to team-based learning and the rationale for including it in programs (i.e. to support collaborative skills).

Tools

Several tangible tools to support students to navigate teamwork were highlighted in the research by participants. These included:

- Team Agreements- team agreements have been shown to decrease team conflict and respondents suggested more focus on actionable team agreements would support team-based learning.
- Team Coaching Sessions – respondents suggested that team coaching sessions should occur with a team coach as they can make it a safe space. Making these meetings mandatory was suggested, but questions were raised regarding how to navigate uncertainty in teams and what to do if team members do not attend.
- ITP Metrics- ITP Metrics provides several specific tools used by several participants, including peer feedback tools.
- Intelligent team composition- ensuring that a balance of learning preferences is covered in team composition was noted.
- Team process documents was also mentioned.

Additionally, participants highlighted the need to bring in specific processes to support team-based learning. Ideas for these included:

- Professional Development – participants highlighted the need to provide professional development with tools to support successful and effective team-based learning.
- Course design- breaking assessment into steps with reflection and learning was mentioned.
- Delivery of team-based skills early on, as well as skills to work through conflict was noted by participants.

Participants emphasized the need to develop or provide tools or processes that do not seem to exist now. The ideas that participants generated included:

- Providing/developing tools to build trust, connection, accountability within teams;
- Providing/developing tools/skills/strategies to engage students in the classroom; and

- Offering a video of team coaches providing team skills development strategies.

Communication

Communication was a significant emergent theme within the other areas of data collection, but it featured less within the interviews. However, participants did note that it would be beneficial to increase the visibility of effective tools surrounding team-based learning at RRU and thereby enhance its effectiveness. Ideas for communication included: lunch and learns, ongoing dialogue with team coaches, a retreat for learning, ongoing collection of data, use of consistent language, standardised communication tools, and development of a Community of Practice. One participant also noted that it would be useful to be frank about the limitations and benefits of team-based learning, based on what we know and what we do not know.

Issues/Conflict

One of the key themes that emerged from the interviews was the importance of recognizing and working through team-based challenges and conflict. There is a need for faculty to build skills on how to manage conflict within student teams and to know it can be constructive. Conflict can be addressed by team coaches, but it also needs to be addressed by instructors (and students) and should be dealt with early. Participants identified there is a need for interventions that include providing more training on how to support students through conflict.

One respondent noted the destructive outcome of failing to intervene or address team conflict which can lead to team members, program staff, or instructors experiencing bitter attacks post conflict. An interviewee noted that conflict is inevitable, but this can be used to support learning as a living laboratory. Recognizing that conflict within teams can cause damage is also important, as one interviewee highlighted. While recognizing the benefits, it is also important to recognize the detriments of team conflict and work to redress them. A variety of issues were outlined in the

interviews that lead to team challenges including: working styles, perceptions of what is a challenge, social loafing, interpersonal challenges, unequal work distribution, mental health concerns, and imbalance in academic ability. One of the most challenging issues arise when one member of the team is facing undiagnosed or untreated mental health issues.

Interviewees suggested that some of these issues could be mitigated or the destructive outcomes could be minimized by introducing conflict management tools and finding ways to recognize and embrace diversity (including in the areas of: learning preferences, personalities, conflict resolution skills/inclinations, academic orientation and effort, purported intention, orientation to individual vs. collective, as well as other factors). Interviewees suggested that in addressing issues of social loafing, the allocation of process and tasks should be considered. Acknowledging that academic high achieving students can have their grades pulled down by team members, poor writers may benefit in grades but not get needed feedback and coaching; extroverts may dominate. Designing assessments to redress this was highlighted as needed, but most interviewees noted they would like more information and skills to do this.

Ideas to Trial in the Future

The interviewees noted several suggestions for various parts of the university to trial to further improve team-based learning for students. Some of these ideas included: enhancing development for associate faculty; offering CTET team-based learning workshops; and training for associate faculty on various aspects of team-based learning and team assessments. Interviewees suggested that there is a need to provide videos on the following: team-based processes to support student learning, as well as support in building sufficiently complex assessments; training on how to maximize the benefits of a team charter; information sheets and resources for faculty; a menu of options for team coach support; and more thought for how to ensure introverts can safely participate. Interviewees suggested that more

intentional program design would be helpful, as would some discussion on competencies versus learning outcomes. They also noted the importance of integrating team coaches into the student's academic journey.

Overall, several interviewees intimated that if team-based learning is core to the Royal Roads model, then all processes should stem from this.

Key Findings from the Interview Matrix

Based on the findings from the survey and the interviews, the research team noted a series of emergent themes. Based on the themes, four questions were developed to be answered within the interview matrix. The purpose of the exercise was to generate some insights or some ideas for how to move forward with team-based learning. Participants were selected based on their interest and experience in team-based learning. Participants generated great discussions about team-based learning and the core themes that emerged are outlined below under the four questions.

1. How can team-appropriate assignments be developed to enhance students' knowledge and skills of team-based learning?

Participants highlighted the need to have specific expertise in creating effective team assignments. They suggested that an obvious place for this would be within CTET. They further added the idea of CTET having a "Team Assignment Guru", as well as targeted training for faculty, for instance with a workshop on effective team assignments. Another idea that emerged was focusing the first assignment in a program on how to work as a team. As a program progresses, introducing team assignments that require multiple perspectives provides a better rationale for using a team-based approach. This supports that idea that the process becomes a deliverable. Participants also recommended having a strategic approach across programs where team assignments are laid out at specific points to avoid glut

and to make them count. Finally, participants recommended mandatory team check-ins (built into assignments) to anticipate issues and concerns.

2. What strategies, focused on team process, can be used by students and instructors to capture the team experience including both successes and challenges?

Participants provided specific tools and resources that could be used to support team focused strategies. These included:

Tools:

- ITP Metrics
- Team Agreements
- SUIT framework
- Reflection tool/ITP

Reflection Processes:

- Processes and activities to support self-reflection
- Mid-point reflection submitted to team coach or instructor, part of “formal assessment”
- Mid-point check-in with the instructor or team coach
- Formative feedback
- Tool for assessing or reflecting on the team agreement
- Case studies (high/low functioning team) (how does it relate?)

3. Social loafing has been identified as a behavior that challenges teams. What skills are needed for students and instructors to be able to identify, support, and work well with social loafers?

Social loafing is defined as “a reduction in motivation and effort when individuals work collectively compared with when they work individually or coactively” (Karau & Williams, 1995,

p.134). It has been identified as a behaviour that challenges teams across the university and beyond. Participants highlighted the skills needed to identify, support, and work well with social loafers, for both students and instructors. The ideas that participants highlighted included:

- Supporting dialogue within teams;
- Building assignments with clear understanding of learning outcomes (keeping social loafing in mind);
- Providing clear deliverables;
- Strategically considering team formation across a program, with the last team being self-organized;
- Having measurement tools and accountability tools to give students tools to make contribution explicit;
- Having accountability processes for instructors clearly articulated;
- Including “real world” impact in team activities and processes;
- Building in reflection pieces (self and peer);
- Ensuring that the university includes team-based learning within its marketing, so prospects and students are clear on team-based learning expectations.

4. How could the full extent of team coaching practices be effectively communicated to the RRU community?

Previous findings highlighted that the services available across the university to support team-based learning could be better communicated. This question was asked to bring ideas forward on how this could be better communicated. The specific suggestions included:

- Providing resources to support team-based learning onto the CTET website and CTET Studio;

- Ensuring CTET instructional designers include a review of team-based processes in all Service Level 2 or 3 courses;
- Defining who has a stake in team-based learning;
- Outlining the team-based approach within the marketing of the university;
- Providing formative learning workshops on team learning;
- Promoting an environment where university leadership leads (and funds) team-based learning. This would be evidenced by integrating both a top down approach and a ground up approach;
- Informing the community about the need for team-based learning resources and what is needed;
- Ensuring that school directors and the Academic Leadership Team (ALT) support team-based learning;
- Ensuring program heads know about the supports available regarding team-based learning and that they pass this information on to staff and associate faculty in a variety of venues, i.e., staff meetings, associate faculty meetings, and workshops. Additionally, to be better able to support students to create effective team-based learning; and
- Creating IT systems that support a platform for team coaches in the Student Information System (i.e., Agresso) and Learning Management System (i.e., Moodle) to support personalization of services.

Analysis

Despite the diversity of data gathering mechanisms and the participants, there was a high degree of synergy in the data provided. Across the various data sources, a holistic and consistent

message emerged that indicated the need to support team-based learning as articulated in both the Learning and Teaching Model (LTM, 2013) and its progeny the Learning, Teaching and Research Model (LTRM, 2018). This substantiates the finding that the core purpose of team-based learning in the LTRM needs to be applied across program delivery and supporting of team processes in team-based learning assessments.

Generally, participants highlighted the importance of RRU committing to innovative processes to support team-based learning. Overall, communication was a core theme, particularly highlighting the need for organisational commitment to education and guidance of team-based learning with core and associate faculty, program staff, program heads, CTET, and team coaches.

In terms of the processes, skills, or additional supports needed to improve team-based learning, participants highlighted: 1) the need for better assessment tools to capture team processes; 2) ways to handle social loafing; 3) unequal work distribution; and 4) ways to manage team-based conflict. At the same time, participants noted the following new tools or processes were effective: ways to deal with conflict, team agreements, team coach integration, ITP metrics, and team coaching sessions. This suggests that some of the processes and tools used are aligned with what is currently needed by staff and faculty. Some instructors noted they collaborated with colleagues to enhance their skills around team-based learning. Some noted they were most confident in helping students develop team agreements and least confident in dealing with difficult conversations. Key success factors were suggested to be within the students themselves, for instance, good communication skills, solid team foundation building, good peer-to-peer support, knowledge of how to work through challenges, and reaching out to the instructor. Thus, the value of team coaching is in providing the skills up front and in navigating significant issues when they arise.

Ideas emerged surrounding specific areas for continued exploration, including working through challenges more effectively, assessing team process, as well as ensuring students with complex needs, such as mental illness, are well supported. In the final analysis, the current alignment of team-based learning with the LTRM most certainly paves the way for future development. Moving forward, it is important to ensure students' team-based skills and competencies are in line with evidence-based approaches, current academic and industry requirements, and institutional values.

Recommendations

From the research, several core recommendations emerged. These include:

- as outlined in the LTRM, continue to design and deliver team-based learning across programs ensuring inclusion of key stakeholders such as program heads, instructors, team coaches, and CTET;
- communicate the services and processes available across the university to support and maximise team-based learning, including team coach services and CTET team-based curriculum design;
- ensure associate and core faculty, CTET, and team coaches are equipped to deliver purposeful team-based learning through training on team competencies, managing conflict (e.g. social loafing, unequal division of labour, and destructive conflict), and designing activities and effective team assessments; and
- clarify students' expectations regarding team-based learning within courses and programs and provide the appropriate training.

Areas for Future Exploration

From the findings, the research team identified several core domains for further development, continued support, or deeper investigation. Those identified included:

Educational process/pedagogy

- Identifying where program gaps exist and continuing to map team-based learning across programs;
- Finding ways to provide students, staff, and faculty means to access team process support;
- Utilizing peer assessments;
- Exploring team process assessments; and
- Developing methods to build team-based learning skills across faculty, staff, and students.

Team Coaching

- Integrating team support within programs;
- Supporting team coaches to provide high quality services; and
- Developing a roster of videos and infographics to provide guidance, examples, and overview of team-based learning.

Elements of a successful team

- Developing team assignments that support collaboration; and
- Understanding how to embrace diversity in the context of teams.

Conflict in Teams

- Consolidating approaches to limit the impact of social loafing, uneven work distribution, and destructive conflict.

Finally, this research was envisioned as the first phase of a multi-phase research project. To further understand the role and impact of team-based learning within RRU, other stakeholders will be asked for their insights in a second phase, i.e., current students, alumni, and other relevant partners. Aspects being considered for this second phase include:

- Approaches to address social loafing/free riding;
- Management of conflict on teams;
- Level of transfer of team competencies into the workplace;
- Exploration of barriers that prevent students and faculty from accessing team coaching support;
and
- Creation and development of team assessment processes.

Concluding Thoughts

This study is useful in terms of consolidating an organizational reflective-action cycle. It provides a good space to launch into further inquiry to assess, from students and alumni, the impact of team-based learning and further strategies for improving the effectiveness of this approach as part of the LTRM. This research seeks to distill best practices in team processes, with the intention of embedding them in our teaching. As we embed and find ways to act on the results of phase one of this study, there will be benefit to students, faculty, and the university. This project builds on and synthesizes internal knowledge and expertise of our core and associate faculty, program staff, instructional designers, and team coaches to ensure students experience the most effective learning journey. This study noted that teamwork can be the most rewarding or most challenging aspect of the learning journey. Therefore, as an institution it is important to ensure that team learning within the LTRM is effectively operationalized.

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Appendix One – Shift and Share Questions

Core Questions

How do we deepen our practice to accomplish team-based learning more effectively?
What are we doing that is accomplishing impactful team-based learning?

Theme 1 – What’s Working Well

What’s working well for instructors?
What has worked for you in making the most of team-based learning in your classes?

Theme 2 – Challenges

What are some challenges for instructors?
What has not worked for you? What challenges are you seeing?

Theme 3 – Managing team conflict

What have you experienced with student team challenges/crisis/conflict?
How have you dealt with them?

Theme 4 – Supporting online teams

What do you think is the best way to support online student teams to build high performing teams?
Can you outline an example of what has worked in your course?

Theme 5 – Designing team assignments and activities

What elements do you think are key ingredients to designing a “great” team assessment or activity?
Complete this sentence, “A great team assignment must have, include, be...”

Theme 6 - Team-based learning at the program level

How has the program design and delivery been adapted to include a fluid approach to team-based learning?

Appendix Two- Survey

Reflecting on Team-Based Learning: Living our Model

You are invited to participate in a brief online survey as part of a research project exploring the effectiveness of team-based learning as outlined in the Royal Roads Learning and Teaching Model.

Survey Questions

1 *1. What is your role here at Royal Roads University?

Please choose..

Comment:

2 *2. How long have you been working with Royal Roads University?

- less than 1 year
- 1 - 3 years
- 3-5 years
- 5-10 years
- longer than 10 years

Other

3 3. What School(s) have you worked with in the last two years?

- School of Tourism and Hospitality
- School of Humanitarian Studies
- School of Business
- School of Education and Technology
- School of Culture and Communication
- College of Interdisciplinary Studies
- School of Environment and Sustainability
- School of Leadership

Professional and Continuing Studies

Other

4 *4. According to the Learning and Teaching Model, "The applied, professional focus of the programs at RRU underscores the importance of teaching effective team skills that have direct application in the workplace...As well, Fink notes that effective team learning is an intentional instructional strategy that encourages the development of high-performing learning teams engaged in specific and significant learning tasks...Team-based learning takes many forms at RRU from engagement in formalized, authentic activities like case competitions, leadership challenges, and action research inquiry labs to less formal, smaller scale activities like online discussions to collaborative papers" (LTM, 2015). Overall to what degree do you think RRU is accomplishing the above objectives about team-based learning as outlined in the Learning and Teaching Model (LTM)?

To what degree is RRU accomplishing the team-based learning objectives as outlined in the LTM?

Please choose..

7 *5. Based on your role, how well are you integrating and implementing team-based learning?

Based on your role, how well are you integrating and implementing team-based learning?

Please choose..

5 *6. What elements of team-based learning, as outlined in the LTM, do you incorporate in the work you do with students at RRU?

Intentional design for team learning in programs

Please choose..

Focus on developing skills for direct application in the workplace

Please choose..

Create time/space to develop high performing teams

Please choose..

Designing specific and significant learning tasks within courses

Instruction of team learning within a course

Use case competitions

Use leadership challenges

Use action research inquiry labs

Facilitate team online learning activities

Provide teams with the opportunity to build collaborative papers

8 *7. Specifically, what are you doing to implement and integrate team-based learning?

- Instructing student teams in the classroom
- Team assignment design
- Team assessment to measure outcome
- Team assessment to measure team process
- Training or developing student teams to become and continue being high performing
- Coaching student teams
- Program support for students about their teamwork
- Team formation
- Developing team learning outcomes at the program level
- Developing team learning outcomes at the course level
- Program mapping
- Participating in team-based learning workshops
- Collaborating with colleagues at RRU about team-based learning
- Collaborating with team coaches at RRU about team-based learning

Other

9 8. Give a brief example of a student team process/project that worked well?

10 *9. In your opinion, what key elements made that team process successful (from your example above)?

- Students had developed a strong team foundation (i.e.: team agreement, team charter)
- Students had strong communication skills
- Students supported each other during their teamwork
- Students knew how to work through personal and team challenges
- The team coach provided support through debrief sessions, formative assessment tools
- Students reached out for support from the team coach
- Students reached out to the instructor for team support
- Students reached out to program staff for support
- Students applied intentional team dynamic concepts for success
- Team success was due to intentionally enhancing their team as a result of learning about team process

Other

10 10. Select options where you have received support from a team coach regarding student teams,

- Team Coach provided facilitated workshops to students regarding team development
- Support with an individual student having team challenges
- Support with team challenges
- Forming student teams (including refining student team formation as they transition)
- Team Coach did individual team check ins
- Team coach provided formative team assessment (ex: reflective activities during team check in's, ITP metrics self/peer assessment/team health, other self/peer assessment)
- Attended a workshop from team coaches about team-based learning

Other

1
1

*11. What is working and what needs work when utilizing a team coach for support?

Facilitated workshops about team development

Collaborate Sessions about team development

Formative assessment for team (i.e.: ITP Metrics, reflective activities)

Coaching individual student concerns about team

Coaching teams through challenges

Providing input when design and development work is being done for programs/courses

Collaboration with instructors for supporting teamwork within a course

Students accessing the team coach

Reaching out to a team coach (where, when, and how)

Knowing what the team coach can provide

Comment here on any additional elements that are working well or need work that have not been mentioned

1
2

12. Select options that indicate where you have worked with program staff or your Program Head regarding team-based learning.

Designing courses that align with team-based learning principles

Program support in managing student team conflict

Program support in designing effective team processes

Support with forming student teams (including refining student team formation as they transition)

Support with communication about student teams

Discussions on team effectiveness

Other

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3
13. What is working and what needs work regarding the support you received from a program staff or Program Head regarding team-based learning?

1
4
14. Select options that indicate where you have received support from CTET staff regarding team-based learning.

- Designing team-based learning in a new course
 - Designing team-based learning in a current course
 - Program Mapping
 - Designing / Redesigning team assignments
 - Developing team assessments to measure outcome
 - Developing team assessments to measure process
 - Developing effective team activities
 - Use of technology to support team learning
 - Workshops providing resources and learning about team-based learning
 - Training on effective team-based learning
- Other

2
1
15. What is working and what needs work regarding support from CTET staff regarding team-based learning?

1
5
*16. RRU supports team-based learning through a variety of ways: instructors, team coaches, CTET, and program offices. With this support, rate your level of confidence across the following issues.

- Conflict management for teams
- Developing communication skills in student teams
- Dealing with challenging conversations occurring in student teams
- Supporting students to give and receive feedback
- Intentional team composition

Please choose..

Determining length of time teams work together

Please choose..

Helping student teams develop team agreements

Please choose..

Determining value of a team assignment

Please choose..

Setting up and administering Self/Peer Assessment

Please choose..

Assessing team process

Please choose..

Innovations / ideas / technologies for teams

Please choose..

Supporting student teams in processes that help them do the task work in their team (e.g.: Team Planning Process, etc..)

Please choose..

1 17. What team-based learning
6 challenges have you experienced at RRU?

1 *18. Overall, how effective do you
7 think the support is at RRU to implement and integrate team processes? (from program staff, instructors, program heads, CTET staff, team coaches, other).

Overall, how effective do you think the support at RRU is to implement and integrate team-based learning?

Please choose..

1 19. Specifically, what kind of
8 support is most effective?

2 *20. What additional
1 recommendations do you have regarding support and / or systems to optimize delivery of team-based learning?

2
0

22. If you are willing to be interviewed or participate in a group data collection process (such as an interview matrix, focus group, or world cafe) please include your name and contact information here. Distance is not a problem if you are willing to be interviewed. THANK YOU! Your voice and input are important.

Appendix Three- Interview Questions

Interview Schedule

Preamble- *Thank you for completing the consent form and for agreeing to speak with us about your experience with team-based learning at Royal Roads University. To begin with we would like to give you a brief synopsis of the data we can collected to this point.*

[Summary of the results so far from the survey and the workshops in fall 2017].

Based on this data we wanted to delve in a little more detail about how different stakeholders are experiencing team-based learning. These questions ask for both your experience as an individual and your observations of what occurs within Royal Roads University.

1. What have you been doing with respect to team-based learning at RRU?
 - a. In your experience, what are the strengths of team-based learning approach?
2. What do we (the Royal Roads Community) want students to leave RRU with in terms of teamwork skills?

(Prompt - What benefit do you think it brings to a student and to an Instructor?)

 - a. Team-based learning is embedded in the LT(R)M. This assumes this is beneficial to students. Is this an appropriate assumption? (If no, what would make it appropriate?)
3. How can we create consistent, yet tailored team experiences (with diversity in mind, e.g. for undergrad/grad, various ages, online/blended/on campus student experiences, academic vs workplace team experience)?
4. How can we maximize the impact of team-based learning for our students?
 - a. At the institutional level
 - b. At the program level
 - c. At the course level
5. At the course level, what are some of the key challenges and barriers to team-based learning that you have seen? How can we address these?

Prompts (if needed):

- i. social loafing
- ii. unfair allocation of work
- iii. variable expectations
- iv. resolving team challenges
- v. interpersonal conflict

6. Should we assess team process? How should we do this? Should team assignments be in every course?
7. Does team coaching, as a resource, enhance the impact of team-based learning for our students?
 - a. From your observations, what prompts an Instructor or student to reach out to a team coach?
 - b. How could we better communicate the supports we have for team-based learning at RRU? (And how can we better communicate when to reach out to team coaches?)
8. What are the processes that you are currently using that support effective team-based learning?
9. What are you not doing, but would like to be doing with regards to team-based learning? What resources do you need to do this?
10. What more could RRU (as an academic institution) do to effectively implement team-based learning?
11. Is there anything else you would like to share with us?

Thank you for taking the time to share your insights with us. This is valuable and much appreciated.

Appendix Four – Interview Matrix Questions

1. How can team-appropriate assignments be developed to enhance students' knowledge and skills of team-based learning?
2. What strategies, focused on team process, can be used by students and instructors to capture the team experience including both successes and challenges?
3. Social loafing has been identified as a behavior that challenges teams. What skills are needed for students and instructors to be able to identify, support, and work well with social loafers?
4. How could the full extent of team coaching practices be effectively communicated to the RRU community?