

Active Learning at Queen's

2013 – 2025

Transforming Spaces, Empowering Learning



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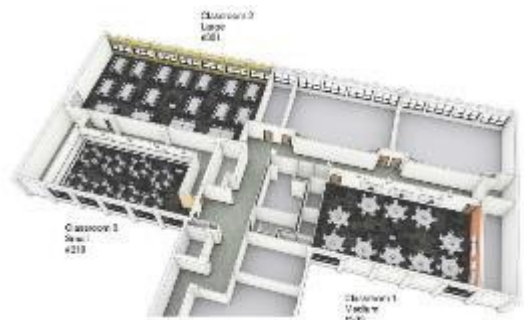
Queen's University is situated on the territory of the Haudenosaunee and Anishinaabek.

*Ne Queen's University e'tho nón:we nikanónhsote tsi nón:we ne Haudenosaunee táhnon Anishinaabek
tehatihsnonhsáhere ne onhwéntsya.*

Gimaakwe Gchi-gkinoomaagegamig atemagad Naadowe miinwaa Anishinaabe aking.

Executive Summary

This report provides a 12-year retrospective on Queen's University's classroom transformation efforts, led by the Centre for Teaching and Learning (CTL) and stewarded by the Vice-Provost of Teaching and Learning (VPTL), towards the creation and expansion of Active Learning Classrooms (ALCs). It highlights the pedagogical impact of these transformations and the funding that made this initiative possible. Beginning in 2011 with a vision to reimagine underutilized teaching spaces in Ellis Hall, [Russell and Katherine Morrison](#), as well as the late Jack McGibbon donated approximately \$2.2 million to create the pilot project, launched in 2012, that resulted in the opening of Queen's first three ALCs in Winter 2014.



Over the last decade, the pedagogical demand for larger, more flexible active learning spaces has grown steadily with ALCs and active learning pedagogy becoming a trend in higher education institutions ([Beaudry 2022](#)). As instructors across disciplines have adopted active learning approaches, the CTL and its partners on [the Teaching and Learning Spaces Working Group](#) have worked to design and scale learning environments that enable collaboration, movement, and interaction—features that are now essential to contemporary teaching practices. This work has been guided by the Scholarship of Teaching and Learning (SoTL), drawing on both institutional research and the wider academic literature to ensure that classroom design decisions are grounded in evidence about how space influences engagement and learning outcomes.

In 2025, Queen's celebrated a significant milestone with the opening of its 25th centrally scheduled Active Learning Classroom. During the Winter 2025 term, 160 faculty members taught 194 courses in ALCs—spanning nearly every discipline. This moment offers a meaningful opportunity to reflect on the scope, impact, and value of this long-running initiative. Key figures in the project's early success—Dr. Andy Leger (Centre for Teaching and Learning), Jo Brett (Timetabling), and Steve Alexander (IT Services Digital Classrooms)—laid the groundwork not only for the physical transformation of classrooms, but for a broader institutional shift toward evidence-informed, student-centered learning environments. Their work catalyzed the



creation of the Teaching and Learning Space Working Group (TLSWG), a cross-campus partnership that continues to bring together the CTL and members of various organizations and Information Technology Services (ITS), Facilities (Design and Construction, Custodial, and Fixit Operations), Event Services, the Timetabling team of the Registrar's Office, and Campus Planning and Real Estate. The TLSWG now supports 130 centrally timetabled classrooms across the main and west campuses, as well as the Isabel Bader Centre.

Faculty onboarding and development have been central to the success of this transformation. Through CTL-led workshops, consultations, and peer learning communities, hundreds of instructors have been supported in translating their teaching goals into effective classroom practice. This sustained investment in pedagogical support has been critical in helping faculty navigate the shift from traditional lecture-based models to more active, inclusive, and student-driven forms of learning.

Queen's is now recognized as a national leader in active learning classroom design and innovation, with its model informing institutional initiatives across Canada. This report serves to document the pedagogical impact of the renovations and classroom changes across the University, reaffirming the University's ongoing commitment to improving student learning experiences through research-informed design, collaborative practice, and a shared institutional vision for the future of teaching and learning.

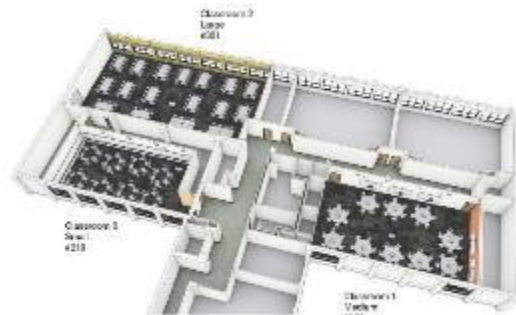


To learn more about the demand for active learning classrooms, see: Beaudry, Sharon. "The Factors That Lead to Growing Active Learning Classrooms." *Journal of Learning Spaces*, vol. 11, no. 1, 2022.

A Decade of Change: From Pilot to Pedagogical Movement

Ellis Hall Experiment (2011-2014)

In January 2014, Queen's University launched three newly renovated Active Learning Classrooms (ALCs) on the third floor of Ellis Hall. These spaces were specifically designed to support active and collaborative learning through flexible layouts, integrated technology, and instructor support.



Project Goals

- Create adaptable classroom environments that promote student engagement and group work.
- Encourage faculty experimentation with innovative course design and teaching strategies.
- Offer comprehensive support that integrates pedagogy and technology.
- Gather data on classroom use to inform future teaching space development across campus.

Initial Funding and Project

The project emerged from Queen's broader commitment to enhancing the student learning experience by transforming the spaces in which learning occurs.

Recognizing that active learning thrives in flat, flexible classrooms equipped with the right tools, the University's Teaching Space Committee began exploring options in 2011 to repurpose underused classrooms in Ellis Hall.



With generous donor support in 2012, planning for a pilot project began in earnest. Throughout 2012 and 2013, extensive consultations were held with faculty, the Centre for Teaching and Learning, IT Services, the Timetabling Office, Campus Planning, and Physical Plant Services. These collaborations helped shape the vision and functionality of the new classrooms.

The committee engaged a local architectural firm, Shoalts & Zaback, for the design of the classrooms, and appointed Jamie Thompson from Facilities as the project manager. Renovations moved forward on schedule, and the classrooms were ready for use at the start of the Winter 2014 term.



This Ellis Hall pilot project became a catalyst for broader classroom transformation efforts at Queen's, laying the foundation for a decadelong initiative to improve learning environments across campus.

Reference Paper: Leger, A., Chen, V., Woodside-Duggins, V., & Riel, A. [*Report on Active Learning Classrooms in Ellis Hall*](#) (Sept 2013 – July 2014). Kingston, ON: Centre for Teaching and Learning, Queen's University

Institutional Integration & Impact (2021-2025)

Space Design and Accessibility

Key Renovations:



Accessible Seating Options



Consistent Classroom Technology



Central Classroom Website



Accessibility Resources



Inclusive Language



Microphones

**High-
Resolution
Video Walls**

**Secondary
Screens**

**Linked
Classrooms**

**Instructor-
Centred AV
Solutions**

A cornerstone of the Teaching and Learning Spaces Working Group’s (TLSWG) mandate is ensuring that all renovated and newly developed classrooms at Queen’s University are inclusive, accessible, and supportive of diverse learner needs. As the campus continues to modernize its learning environments, the group has embedded accessibility into both physical space design and digital resources to ensure equitable access to teaching and learning opportunities.

In classroom design, the TLSWG has prioritized universal accessibility standards to foster inclusive learning for all students. All newly renovated classrooms include accessible seating options, with designated spaces for students using assistive mobility devices and adjusted layouts to ensure clear, widened pathways for easier navigation. Recognizing the importance of comfort and dignity in the learning environment, all classrooms now include bariatric-friendly seating and multiple seat sizes in auditoriums, accommodating a broader range of body types and mobility needs. The installation of height-adjustable desks across campus further supports accessibility for students and instructors with different physical requirements, ensuring everyone can engage with the space in a way that suits them best. Additionally, the group championed the classrooms signage project which incorporated information about classroom accessibility, and emergency numbers into every room as well as prioritized larger exterior signs to indicate a classroom with the room number both in writing and brail.

Standardization has also been a key focus of the TLSWG’s approach. Consistent classroom technology across similar room types ensures that all users—students, instructors, and support staff—can interact with classroom systems confidently and without unnecessary barriers. This standardization supports both accessibility and usability, reducing cognitive load and simplifying training and troubleshooting across the university.

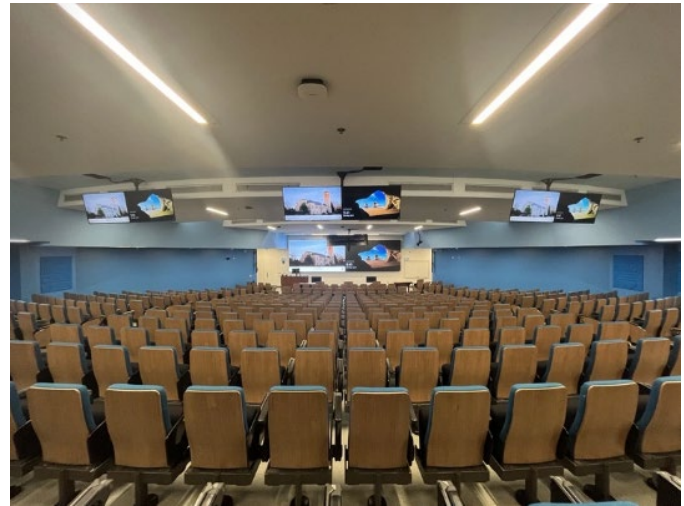
Beyond the physical spaces, accessibility is also reflected in Queen’s digital presence. The TLSWG has worked to ensure that the university’s centrally managed classrooms website uses consistent, inclusive language and links to relevant accessibility resources on every page. This supports transparency, empowers users to understand the features of available spaces, and promotes a more inclusive academic culture by providing easy access to the information needed for planning, teaching, and learning.

Together, these efforts demonstrate a sustained and integrated approach to accessibility in both physical and digital environments. By embedding accessibility principles into

classroom renovations, furniture choices, technology standards, and online communication, the TLSWG has helped Queen's make significant progress in inclusive learning space design—ensuring that the evolving campus infrastructure reflects the values of equity, dignity, and full participation for all.

Technology Integration

As Queen's University continues to modernize its learning environments, technology integration has been a central focus of the classroom transformation strategy. Under the leadership of the Steve Alexander, Manager, Digital Classrooms, IT Services, and Teaching and Learning Spaces Working Group (TLSWG), classroom technology is being deployed in a way that creates a consistent and seamless user experience across campus. This allows instructors and students to move between buildings and classroom types without needing to relearn or adapt to different systems—streamlining preparation and minimizing disruption to the teaching and learning process.



In large-format teaching spaces, Queen's has standardized several features to support better communication and visibility. Microphones are now standard in all large classrooms, improving clarity and accessibility needs. Auditoriums are being upgraded with high-resolution video walls and strategically placed secondary screens, ensuring that all students—regardless of where they are seated—can clearly view course materials. These enhancements are not only about aesthetics but are driven by a commitment to accessibility and inclusive design.

The TLSWG has also introduced linked classrooms as part of its broader commitment to flexibility and access. These technologically connected rooms allow a single course to be delivered simultaneously across multiple physical spaces. Real-time audio and video feeds ensure that students in each room can fully participate, enabling larger classes to remain interactive and inclusive without sacrificing quality of engagement. This innovation has expanded teaching capacity and preserved the intimacy of smaller classroom settings, even for high-demand courses.



Technology upgrades are not limited to infrastructure—they are also strategically designed to support pedagogy. Queen’s has implemented instructor-centered AV solutions that prioritize ease of use, reliability, and adaptability. These systems are tailored to a wide range of instructional styles and offer features that support both traditional lectures and collaborative activities. Active Learning Classrooms (ALCs), now numbering 25 across campus, exemplify this alignment between space, technology, and teaching practice. In Winter 2025, 160 instructors taught 194 courses in these spaces, covering nearly all Faculties and disciplines—a testament to their flexibility and popularity.

By focusing on strategic upgrades, technology standardization, and innovations like linked classrooms, Queen’s has positioned itself as a leader in learning space technology in Canadian higher education. These enhancements not only improve day-to-day instruction but also build resilience and scalability into the University’s academic infrastructure—supporting both current instructional needs and future growth.

Renovations

Full Renovations

<i>Academic Year</i>	<i>Building</i>	<i>Room #</i>	<i>Room Type</i>	<i>Capacity</i>
2014/15	Ellis Hall	319	Flexible Seating Active Learning	48
2014/15	Ellis Hall	321	High-Tech, Team Based Active Learning	136
2014/15	Ellis Hall	333	Low-Tech, Team Based Active Learning	70

2016/17	Duncan McArthur Hall	AUD	Auditorium	702
2016/17	Kingston Hall	313	Low-Tech, Team Based Active Learning	49
2016/17	Theological Hall	203	Flexible Seating Active Learning	30
2016/17	Theological Hall	209	Flexible Seating Active Learning	30
2017/18	Mackintosh-Corry Hall	A309	Flexible Seating Active Learning	30
2017/18	Mackintosh-Corry Hall	A311	Flexible Seating Active Learning	30
2017/18	Mackintosh-Corry Hall	D201	Low Tech Team Based	94
2018/19	Ellis Hall	226	Low-Tech, Team Based Active Learning	60
2018/19	Ellis Hall	324	High-Tech, Team Based Active Learning	120
2018/19	Mackintosh-Corry Hall	E202	Indigenous Classroom Space	30
2018/19	Theological Hall	215	Convocation Hall - Tiered	183
2019/20	Humphrey Hall	131	Low-Tech, Team Based Active Learning	30
2019/20	Humphrey Hall	132	Low-Tech, Team Based Active Learning	30
2019/20	Humphrey Hall	223	Low-Tech, Team Based Active Learning	30
2019/20	Kingston Hall	101	Tiered	144
2019/20	Kingston Hall	304	Flexible Seating Active Learning	25
2019/20	Kingston Hall	308	Flexible Seating Active Learning	25
2019/20	Mackintosh-Corry Hall	B201	Tiered	103
2019/20	Mackintosh-Corry Hall	D214	Tiered	52
2019/20	Mackintosh-Corry Hall	D216	Tiered	52
2020/21	Biosciences Complex	1101	Auditorium	450
2020/21	Biosciences Complex	1102	Auditorium	302
2021/22	Biosciences Complex	2109	Low-Tech, Team Based Active Learning	56
2021/22	Botterell Hall	B129	Low-Tech, Team Based Active Learning	54
2021/22	Ellis Hall	218	Flexible Seating Active Learning	25

2022/23	Jeffery Hall	155	High-Tech, Team Based Active Learning	152
2022/23	Jeffery Hall	156	High-Tech, Team Based Active Learning	152
2022/23	Kingston Hall	301	Low-Tech, Team Based Active Learning	84
2023/24	Theological Hall	307	Low-Tech, Team Based Active Learning	58
2024/25	Dunning Hall	10	High-Tech, Team Based Active Learning	96
2024/25	Mackintosh-Corry Hall	D201	Low-Tech, Team Based Active Learning	42
2024/25	Mackintosh-Corry Hall	D202	Low-Tech, Team Based Active Learning	42

Additional Projects

- 2017, Fall – Mackintosh-Corry Hall – Student Street
- 2019, Summer – Technology Standardization Project
- 2022, Fall – Furniture Revamp – Chernoff, Jeffery, Mackintosh-Corry,
- 2023, Fall – Classrooms Signage Project

Pedagogy in Practice: Teaching Transformation in Active Learning Spaces

The demand for Active Learning spaces in higher education institutions has grown steadily over the last decade ([Beaudry 2022](#)). With increasing enrollment and large class sizes, the need for adaptable and flexible learning spaces is more important than ever, particularly for high demand courses. These demands reflect on the pedagogical and learning benefits of Active Learning spaces for instructors and students. A 2007 study on the benefits of Active Learning spaces in undergraduate physics classes at North Carolina State University found students learned “substantially more than in traditional settings in terms of conceptual understanding and demonstrating problem solving



ability as good or better than their peers in lecture sections” (Beichner et al.). More recently, in 2019, an analysis of research on active learning spaces found “a growing need to understand space as a third component of effective learning experiences, complementing pedagogy and technology.” The study states that the larger cultural effects of ALCs and ALC design can be seen in the feelings of “connectedness” in the classroom, both between student peers and between students and instructor, as well as a better ability in students to “connect the concepts of a class to their own interests and conceptions” and to “draw connections between ideas.” The studies collected in this analysis point to “greatly enhanced engagement” in students learning in ALCs through Active Learning strategies (Talbert and Mor-Avi 2019).

The adoption of Active Learning Classrooms and strategies at Queen’s for faculty and instructors has been supported by the CTL through relevant programming and workshops. This programming includes:

- 2 Feb. 2016: Teaching Development Workshop Series - Active Learning in a Traditional Classroom: In this highly active and interactive session, we explored the principles of active learning, practiced trouble-shooting ways of adapting instructional strategies, and learned to overcome the architectural limitations of a variety of classroom contexts.
- 15 Jan. 2021: Active Learning Session - Explored the principles behind active learning (sometimes known as engaged or participatory learning), expanded faculty's repertoire of techniques, and visited some of the active learning classrooms on campus.
- 2021-Present: Active Learning Orientations – At the beginning of the Fall and Spring term, faculty learn more about the classroom technology in our Active Learning transformed spaces and discuss ideas about integrating active learning into course design. The sessions are co-hosted by ITS and the Centre for Teaching and Learning (CTL).

This programming from the CTL emphasizes the commitment to advancing effective pedagogies through faculty development, supporting their abilities to integrate Active Learning into course design and activities. Through adapting instructional strategies and designing with Active Learning in mind, instructors can utilize flexible classroom designs to incorporate group or collaborative learning strategies. Research throughout the last couple of decades reveals the pedagogical benefits of collaborative, peer-to-peer learning in the classroom. Group learning often manages heterogeneity in the classroom, enhances achievement and engagement, and increases student accountability ([Gunderson et.al. 2008](#)).

References: R. Beichner, in *Research-Based Reform of University Physics*, edited by E. Redish and P. Cooney, (American Association of Physics Teachers, College Park, 2007), Vol. 1, (<https://www.compadre.org/Repository/document/ServeFile.cfm?ID=4517&DocID=183>).

Evidence & Impact: Aligning with Institutional and Provincial Goals

User Experience

A central objective of Queen's University's classroom transformation efforts has been to improve the experience of both students and instructors through the intentional design of active, inclusive, and supportive learning spaces. Over the past decade, comprehensive feedback and research have shown that these spaces not only support more dynamic teaching practices, but also enhance engagement, collaboration, and student satisfaction across disciplines and course levels.



From the outset, learners and instructors responded positively to the introduction of Active Learning Classrooms (ALCs). Student and instructor feedback collected at the start and end of both of Fall term 2014 and Winter 2015 reflected high expectations, with many anticipating active participation and less traditional lecturing. These expectations were generally met, especially when instructors adapted their teaching to take advantage of the room's affordances. Instructors, too, reported being encouraged to shift their pedagogical approach—moving away from passive instruction toward more student-centered, active learning methods. This shift was often immediate and positively reinforced by student engagement.

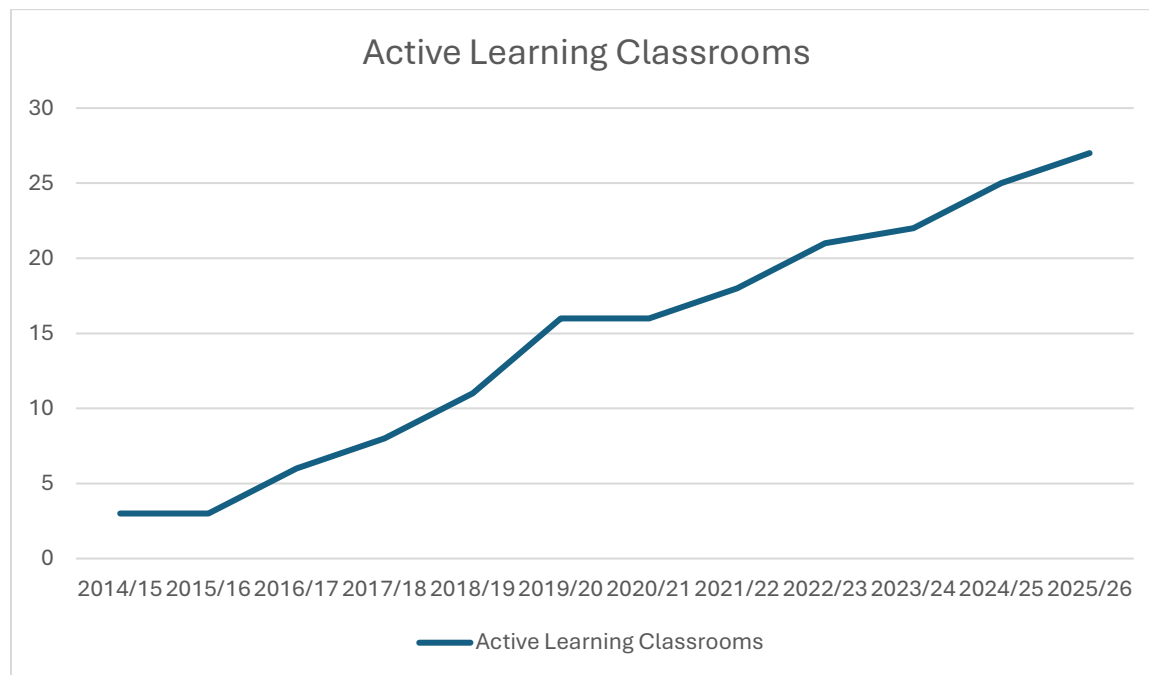
By the end of each term, data consistently indicated that students were more involved and attentive, attributing this to the environment and the active teaching styles it promoted. In classrooms where the experience did not meet expectations, the issues often centered around instructors' comfort with classroom technology or a lack of familiarity with the pedagogical opportunities the space offers. In response, students strongly recommended that instructors take time to explore and practice with the room's features before the

semester begins. They also emphasized the importance of fully integrating these tools into the course to optimize engagement and learning outcomes.

To support this, Queen’s has focused on creating a uniform user experience across all classroom types, ensuring that students and instructors encounter consistent technology, layout logic, and signage from one space to another. This standardization minimizes confusion, supports smoother instructional delivery, and reduces the learning curve associated with navigating new environments. Classrooms across campus—whether on main campus, West campus, or at the Isabel—are now equipped with similar AV configurations and teaching tools, allowing instructors to move between rooms with confidence and students to anticipate the learning environment regardless of location.

Finally, accessibility and user information are emphasized through thoughtful signage and online support. Clear wayfinding, safety instructions, and room feature explanations are available in each space. The [Queen’s Classrooms website](#) serves as a digital companion to the physical environment, offering room-specific information, technology how-to videos, accessibility details, and direct links to report issues or contact support. Together, these elements contribute to a more seamless, safe, and empowering user experience that continues to position Queen’s as a national leader in active learning space development.

Provincial Key Performance Indicators (KPIs)



Queen’s has demonstrated steady growth in the number of purpose-designed teaching spaces that support active learning methodologies. From a baseline of 22 classrooms in

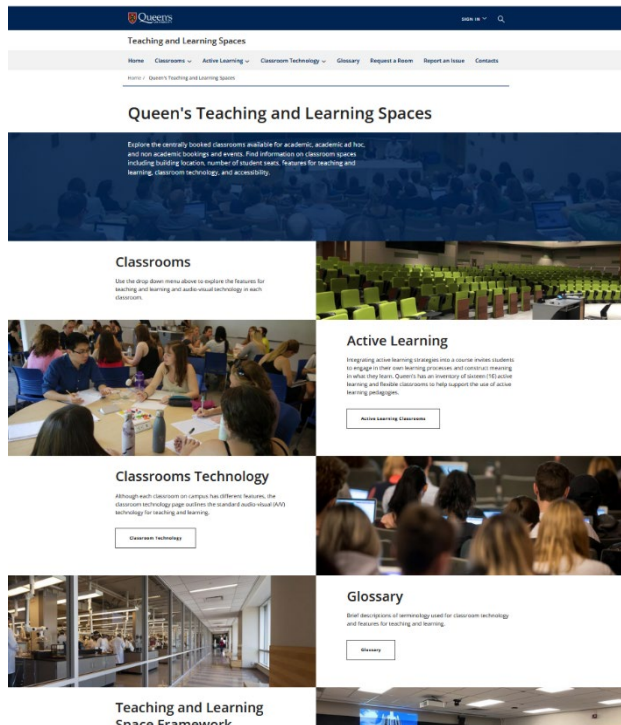
2021–22, the university has increased capacity to 27 spaces by 2025–26 and is on track to reach 29 spaces in 2026–27, exceeding the original target of 28. This sustained expansion reflects an ongoing institutional commitment to enhancing teaching and learning environments through the continued development of active learning classrooms.

Knowledge Development & Leadership: Research, Innovation, and Influence

Selected Publications and Emerging Lines of Inquiry

From the outset, Queen’s University’s classroom transformation efforts have been deeply rooted in a commitment to research-informed pedagogy. Active learning classrooms (ALCs) were not introduced as isolated infrastructure projects, but as part of a broader academic and institutional inquiry into how space influences teaching and learning. This dual commitment—to research and pedagogy—has driven both the development of innovative physical spaces and the creation of comprehensive academic resources that support effective instructional practice.

One of the most visible outcomes of this commitment is the continued evolution of the [Teaching and Learning Spaces website](#). This platform has grown significantly over the past decade to become a central hub for information, support, and information dissemination related to centrally managed classrooms. The site includes detailed room profiles that outline physical characteristics, accessibility features, and pedagogical affordances. It also features sections on [active learning theory and application](#), [technology instructions \(including video tutorials\)](#), [a glossary of classroom-related terminology](#), and practical information on [room booking](#), [issue reporting](#), and [partner contact details](#). This resource not only enhances transparency and usability for faculty and staff but reflects the university’s ongoing investment in making learning spaces pedagogically meaningful and accessible.



Queen's has also made significant contributions to the broader academic discourse on learning environments through a growing body of scholarly research focused on active learning classrooms and instructional space design. These studies offer evidence-based insights into both student and instructor experiences and help inform ongoing improvements in classroom planning and support.

Selected Research Publications

2024 Murphy, M.P.A., Phillipson, A., McRae, K.E., & Leger, A.B.

The Experience of Teaching in an Active Learning Classroom: A Positive/Negative Perception Study.

Learning Environments Research <https://doi.org/10.1007/s10984-024-09512-1>

2023 Leger, A.B., McRae, K.E., & Murphy, M.P.A.

A Committee to Manage Innovative Learning Spaces: Balancing Committee Size, Cross-Campus Representation, and Decision-Making Power.

Journal of Learning Spaces, 12(1)

2018 Phillipson, A., Riel, A., & Leger, A.

Between Knowing and Learning: New Instructors in Active Learning Classrooms.

The Canadian Journal for the Scholarship of Teaching and Learning, 9(1)

2017 Murphy, M.P.A.

Using Active Learning Pedagogy to Develop Essay-Writing Skills in Introductory Political Theory Tutorials.

Journal of Political Science Education <http://dx.doi.org/10.1080/15512169.2017.1328683>

2016 Chen, V., Leger, A., & Riel, A.

Standing to Preach, Moving to Teach: What TAs Learned from Teaching in Flexible and Less-flexible Spaces.

Collected Essays on Learning and Teaching (CELT), 9, 187–198. [CELT Article](#)

2015 Chen, V.

From Distraction to Contribution: Exploring the Subtle Roles of the Instructor and Peers Outside the Group in Active Learning Classrooms.

CJSOTL, 6(3) <http://dx.doi.org/10.5206/cjsotl-rcacea.2015.3.8>

2015 Chen, V.

“There is No Single Right Answer”: The Potential for Active Learning Classrooms to Facilitate Actively Open-minded Thinking.

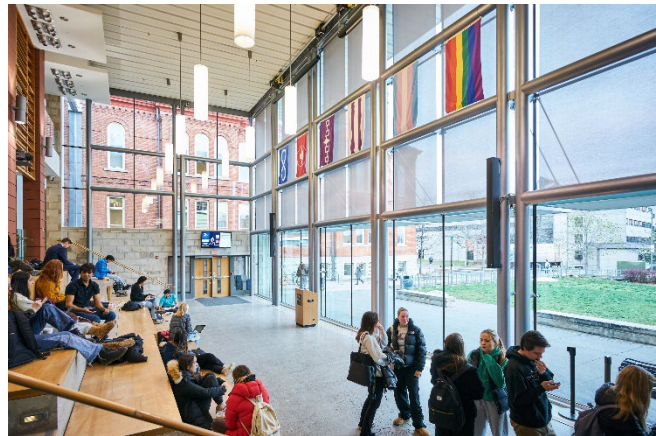
CELT [CELT Article](#)

2014 Leger, A., Chen, V., Woodside-Duggins, V., & Riel, A.
Report on Active Learning Classrooms in Ellis Hall (Sept 2013 – July 2014).
Kingston, ON: Centre for Teaching and Learning, Queen's University

These studies—and the evolving infrastructure that supports them—highlight Queen's leadership in evidence-informed educational development. By integrating continuous research with practical design, the TLSWG ensures that pedagogical innovation is both grounded and scalable. The result is a feedback loop in which classroom experiences inform research, and research in turn shapes future learning space design—strengthening the university's mission to enhance student learning through intentional, research-backed, and evidence-informed teaching environments.

Conclusion

In the past decade, the CTL and the Teaching and Learning Space Working Group (TLSWG) have been committed to creating Active Learning Classrooms that support pedagogical innovation and align with the University's mission to enhance student learning. Through research-informed strategies and techniques, the CTL has organized programming to support faculty in integrating active



learning into their pedagogy and course design through standardized technology, flexible learning spaces, and a focus on connected and community learning. As of the 2025-2026 academic year, Queen's now has 27 ALCs on campus and the CTL projects reaching 29 ALCs for 2026-2027. This report also indicates a significant pedagogical shift at Queen's from more traditional lecture formats to group-based learning with active learning strategies and digital, high-tech active learning spaces. Our Active Learning Classrooms align with the University's commitment to inclusivity and accessibility. As of early 2026, McGill University has reported [17 ALC transformations](#) and Toronto Metropolitan University has reported [1 ALC transformation](#); in comparison, the CTL has positioned Queen's as a leading institution in the integration of Active Learning Classrooms across campus and online, joining the University of Toronto, [reporting 105 renovations](#). The pedagogical impact of the classroom renovations, as documented in this report, emphasize the Centre for Teaching and Learning at Queen's leadership in evidence-informed educational development.