



In Support of Transforming the Instructional Landscape Project

Themes and Insights: Design Thinking Summary April 2018



Prepared for Academic and Campus Events

introduction

Academic and Campus Events (ACE) recognizes that students and instructors require learning spaces that meet their needs. Creating such spaces requires understanding how students use classroom spaces and designing solutions that facilitate learning. To help develop this understanding, the Innovation Hub undertook a project as part of ACE's "Transforming the Instructional Landscape" campaign. Beginning in Fall 2017, we conducted a design inquiry using long-form empathy interviews, participant observation in classrooms around campus, and data lifted from a social media campaign. We determined that students have strong attachments to spaces on campus, both because they recognize the impact of thoughtfully managed space on learning, and because of the memories they associate with certain campus spaces.

In this report, we identify three key themes from the project, with insights and supporting quotes under each. We also include questions and personas that tell students' stories. Personas are used in the Design Thinking process to understand someone's needs and experiences. They help guide ideation and ensure that the end product meets the needs of the target audience. The personas included in this report are characters created based on the information we gathered; they allow us to share student stories while maintaining anonymity.

theme one:

Human-centered Design

Human-centered design considers human needs that can be met through effective use of space. For example, classrooms can be designed to maximize comfort and collaboration with peers.



- Students need classrooms that facilitate discussion between classmates, so they can share diverse ideas and learn from one another. This includes furniture arrangements that allow for eye contact and mobility (e.g., moving desks to form groups).
- Comfort is very important for students. Room temperature, lighting, and spaces that feel open all play a critical role in how engaged (or disengaged) a student will be in class.

Key Quotations



"In my first year seminar course, when the professor made a circle in the classroom where it was crucial for us to get to know our peers, this really helped because it made getting to know people a lot quicker, because we were all making eye contact so no one even had to raise their hand [in] the discussion. You don't feel like a number."

—Domestic Undergraduate Student

"There was one day in September on the third floor ... and it was 30 plus, very hot, because the thermostat wasn't working. It was getting very warm. When you step out you could feel a very huge change in temperature, and it got very difficult to focus There was no air circulation. I started feeling trapped and anxious My professor would be in the middle of something, and I would stand up to go get some air and then go back. I've stood in the hallway within earshot of the professor, just to get air."

—Domestic Undergraduate Student

"I love **big windows**. They make the room feel very open I never feel like I'm suffocating."

—Domestic Undergraduate Student

theme two: Functionality and Space

Classroom spaces should be adaptable. Students say they favour rooms with equipment that enables versatile use of the space. They believe this allows instructors to seamlessly transition from lectures to discussions.



- 1) Flexible furniture, including rolling chairs and desks, helps to facilitate classroom discussion.
- 2) A room with **shared tables, as opposed to individual desks**, creates "natural" discussion and project groups.
- The fold-down desktops found in some older lecture halls create accessibility issues. They also provide limited space to store belongings.

Key Quotations

"I don't like **fold down desktops** because if you have a stomach, the desk rests on it, and it doesn't sit flat, so I'm trying to write on this angle and it's squishing my stomach. **It's really uncomfortable**."

—Domestic Undergraduate Student

"The best space is the WGSI Lounge. **It has those hexagon tables—I love them**. And the chairs are really comfy."

—Domestic Undergraduate Student

"Being able to face each other is very helpful I've never had a class in Sid Smith where I've had good discussions because we're all sitting in rows and you have to spin around to look at someone."

—Domestic Undergraduate Student

theme three: **Aesthetics**

Many students feel that working in the University of Toronto's iconic buildings is a quintessential part of their university experience. They have fond memories that are tied directly to these spaces. Students want to spend more time in these historic buildings.



- 1) The university has many appealing spaces that receive relatively little traffic compared to its more famous locales. Making students aware of all available spaces can help reduce crowds while making use of existing infrastructure.
- 2) Students praise the architecture of buildings at Victoria, Trinity, and St. Michael's college. Not only are the buildings appealing from the outside, but the smaller classrooms and natural lighting make them feel warmer and intimate.
- 3) Students remember spaces—good or bad. When they recall their time at the University of Toronto, they associate particular buildings and classrooms with meetings of friends and academic successes (and failures). They form meaningful emotional attachments, especially feelings of nostalgia, from these memories.

Key Quotations —



"Robarts is the only library that [is] seriously publicised—I've met people who've never been to other libraries There are many libraries that aren't well known and aren't occupied that much and that makes it very nice to study there. I think it would be good for first year students to be aware of all the libraries."

—Domestic Undergraduate Student

"In general, I really like the classrooms in Old Vic because they have that aesthetic that I like to look for. They have big windows and lots of natural light, which is important for me. That older architecture gives me a cozy feeling, but at the same time the tables and chairs are modern, so that makes it comfortable. You get the best of both worlds."

—Domestic Undergraduate Student

"When you talk to your friends and say 'remember when you used to go here' and 'remember we met in that ugly classroom in the engineering building, and now we're best friends'."

—Domestic Undergraduate Student

persona one:

Cozy Chun Yin

Domestic Undergraduate Student Needs to feel the right balance of comfort to focus in class



"I really didn't like Con Hall - that place was always cold. Temperature is a big thing for me because I'm usually cold and that space is just too big."

I'm in my fourth year, and I'm doing my Bachelor's in Applied Science. Over the years, I came to realize that my favourite study spots and classes are in some of my favorite classrooms and spaces—and I don't think that's a coincidence.

For example, I really like to study on the second floor of Gerstein—it's sunny and spacious and quiet, but not quiet to the point where people stare at you if you flip a page—and the temperature is perfect. There's a heater and a ventilator so it doesn't get stuffy, and there are lights and outlets on individual tables.

Some of my worst memories of classrooms had to do with the temperature of the room, believe it or not. I remember when I had to write exams in rooms that are really cold. It made it much worse. I was in Sid Smith and brought a sweater and had to put it over my face because it was so cold! It's always the little rooms that have weird temperatures because they don't regulate it. But the really large ones can get drafty, like the giant University College rooms on the upper levels.

I also remember one classroom that always had uneven temperatures in St. Mike's. It's right by Alumni Hall. I had a bunch of classes there on the third floor and the temperature was never right. On hotter days, we would open the window and it was so hot that it made it hard to concentrate. It was also a tight classroom with not enough room to move around.

I realized that it's important for me to have the right temperature in class—not too cold or too hot—so I'm comfortable enough to focus, but not so comfortable that I fall asleep. Call me Goldilocks.

persona two: Interactive Irwin

Domestic Undergraduate Student Learns more through discussions than lectures



"I really liked to be seated in groups—or just not in rows, you know. Sitting in rows with your fold-up desks make[s] you feel like a number in a class"

I'm majoring in pharmacology with a minor in economics, and I'm now in my fourth year. I always got the most out of a class from the discussions with my classmates and the professor. I want to learn from the interesting discussions we have in class rather than being taught like I'm just a number in a big class.

I hate fold-down desks. When the tables are stuck to the chairs—it's so annoying because it's hard to get in and out of chairs during a class. You distract everyone around you as well. When we break into a discussion, it's difficult to move through these stuck chairs and tables, and you're trying to form groups but just end up turning around to face somebody and it turns into such a hassle.

I like those hexagon tables—I love them; they just help me learn. When the chairs aren't fixed, I'm free to move around and easily connect with someone. When we're in a more interactive learning environment, we're all making eye contact so no one has to raise their hand and the discussion feels more natural. It also helps when you can see everyone you're in class with—it helps you keep engaged and participate. If I'm sitting in a row, and someone sitting behind me participates, I just zone out. I can't concentrate on what they're saying.

Over the years, I've realized that I learn the most through discussions and interactions with my peers. I want to be an active member in the classroom, not just a passenger.

persona three: Nostalgic Nanaka

International Undergraduate Student Wants a "real university" experience



"I wanted the University of Toronto experience—like Harry Potter!"

I'm an international student in my third year studying economics. When I first visited the campus with my parents, I fell in love with the old buildings. We don't have anything in this style back home. It reminded me of something I would see in the movies, and I wondered what it would be like to attend classes in them.

As a student, it turns out attending classes there is pretty great! In fact, it's one of the most memorable parts of my experience here. I can send photos to my friends back home, and they can't believe I work in such beautiful old buildings. The classes themselves are quite cozy too. This is especially nice in the winter, though they can get drafty around the windows. Usually buildings like Old Vic have really large windows, so the rooms are well lit without fluorescent lighting. I love the décor—the bookshelves, paintings, and leather furniture. Some rooms are outfitted with newer furniture as well.

When I first arrived here, I joined a club and met people from it in the classrooms at University College. I have fond memories of that time when I walk past front campus. We live off campus now, but this is where we bonded. Seeing University College in pictures online brings back those memories too. It's nice to think that, 10 or 20 years down the road, these buildings will still be standing and my memories will come rushing back whenever I see them.

I think I'm quite fortunate to have gone to a school with this sort of history. Now, I'm making my own history here too.

conclusion

In this project, we learned about students' needs by listening to their stories, and adopted a point of view based on those needs. Using the student personas that we generated from direct quotations, we are better equipped to think about three core questions:

- 1) How can we take a human-centric design approach to spaces that are inflexible?
- 2) How can we modify existing spaces to ensure that they can adapt to the demands of students and instructors as they change between classes and over time?
- 3) How can we leverage the unique atmosphere and feel of iconic spaces at the University of Toronto to further enhance the learning experience?

Now that we have framed the design challenge, we can work with campus partners to generate, prototype, and test solutions through user feedback.

design checklist

The following checklist can be used to design or redesign spaces so that they meet the student needs identified in this report:

☐ Seating allows for the creation of "natural" discussion and project groups.	
☐ There are easily accessible outlets.	
☐ The space allows students to face each other.	
□ Desks and chairs can be rearranged to suit the needs of the class.	
□ Desks and chairs are accessible for all body types.	
☐ There are open windows or natural lighting. There is bright lighting.	
□ There are plants.	
☐ It is an open and breathable space.	
☐ The space is a comfortable and appropriate temperature for the season.	
☐ There are comfortable chairs and enough tables for students to do work.	

Student Contributors

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