

Steelcase Active Learning Classroom

Learning Environment Evaluation
University of Illinois at Chicago

February 2017

University of Illinois at Chicago

Learning Environment Evaluation

Timeline

Active learning environment utilized in early fall of 2016

Surveys

Post-installation survey, administered October 2016

(136) students

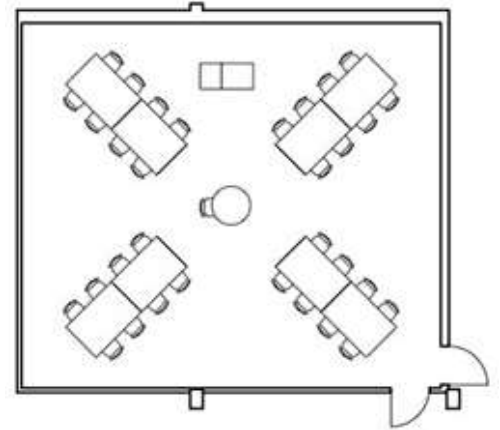
(5) instructors

Instructor and Student surveys were received, recorded, and summarized by Steelcase

University of Illinois at Chicago

Learning Environments

Learn Lab BH B10



Learner Survey Results

Key Indicators

The student survey is focused on gathering feedback around behaviors and perceptions related to engagement and student success.

Steelcase defines student success as acquiring and exhibiting the knowledge, skills, and personal development needed to achieve multiple personal and educational goals. Engagement is a meta-construct that is not easily defined in the literature. However we have the behavioral, emotional, cognitive and academic aspects of engagement that have been studied are woven in throughout this survey.

In this survey, we ask questions around attitudes and behaviors associated with aspects of student success and engagement. These are outlined below. The data captured in this survey is not meant to be an exhaustive evaluation of student success and engagement rather begin to gain a better understanding of practices and attitudes associated with these concepts as they relate to the experiences in the active learning environment.

STUDENT BEHAVIORS AROUND DESIRED SKILLS

Critical thinking activities

Creative activities

Collaborative learning

Communication and participation

MINDSET AND COMMUNITY

Mindset and expectations

Belonging

PHYSICAL MOVEMENT

Movement in space

Key Summary from Student Surveys

Some highlights found in the results of the student survey are highlighted below. The full results are found in the body of this document.

Reported improvement in students connection and confidence in collaboration.

The quantitative and qualitative results of this survey highlight the impact of the perceived effect of the new classroom:

- Connect with others: 71% of all students positively or very positively (41% positively and 30% very positively)
- Communicate ideas: 79% of all students positively or very positively (53% positively and 26% very positively)
- Collaborate with classmates: 78% of all students positively or very positively (49% positively and 29% very positively)

In parallel with these results, the movement of the students in their chairs is also positive:

- Move in chair: 59% of students are sometimes, often, or always moving (23% sometimes, 13% often, and 23% always)

The ability to explore ideas was also positive:

- Explore ideas: 62% of students often or always exploring ideas (23% often and 39% always)

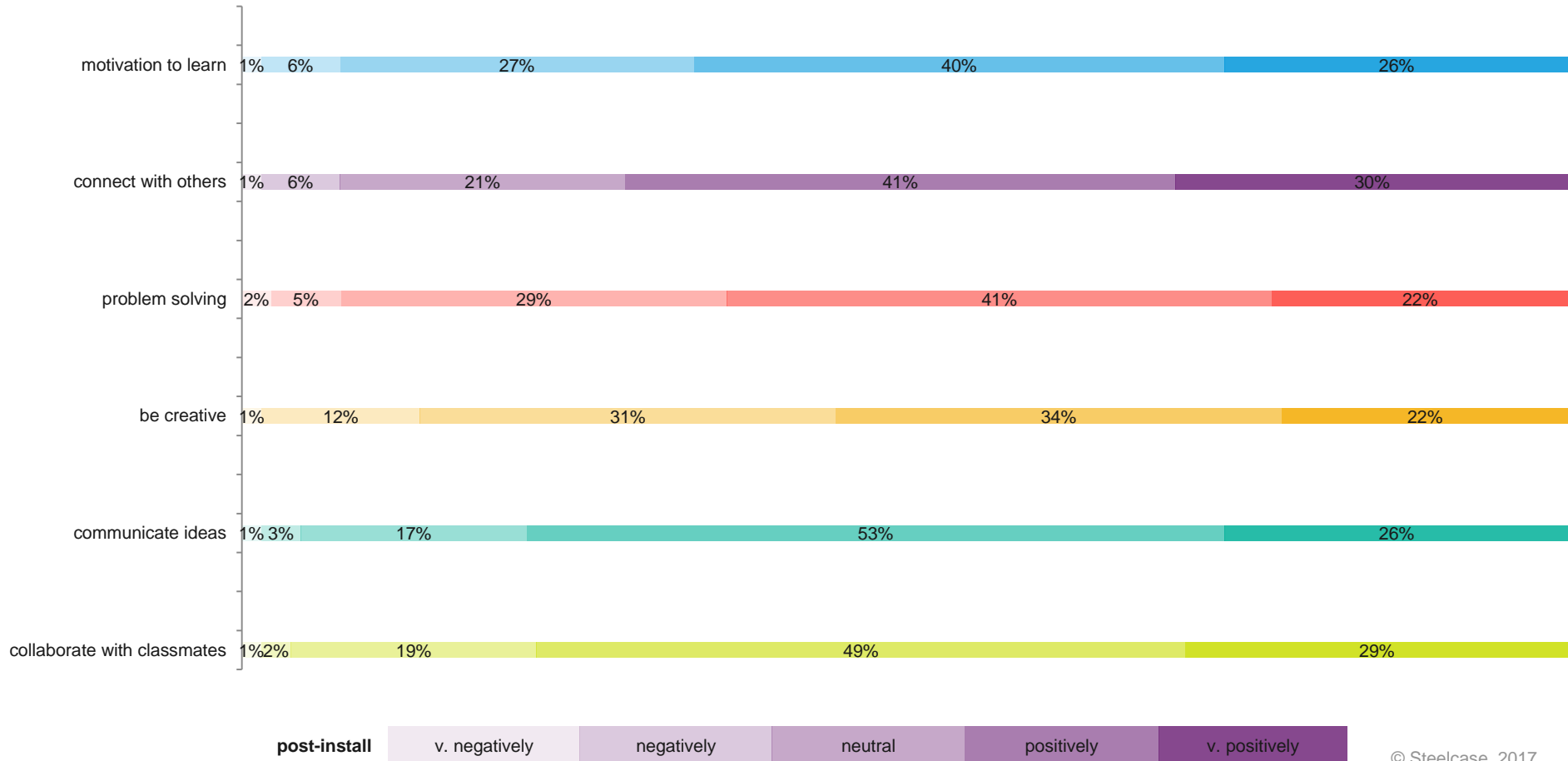
Two aspects of critical thinking were noted as exemplary:

- Work independently and focus: 63% of students noted often or always (36% often and 27% always)
- Engage in the type of best learning: 62% of students often or always (23% often and 39% always)

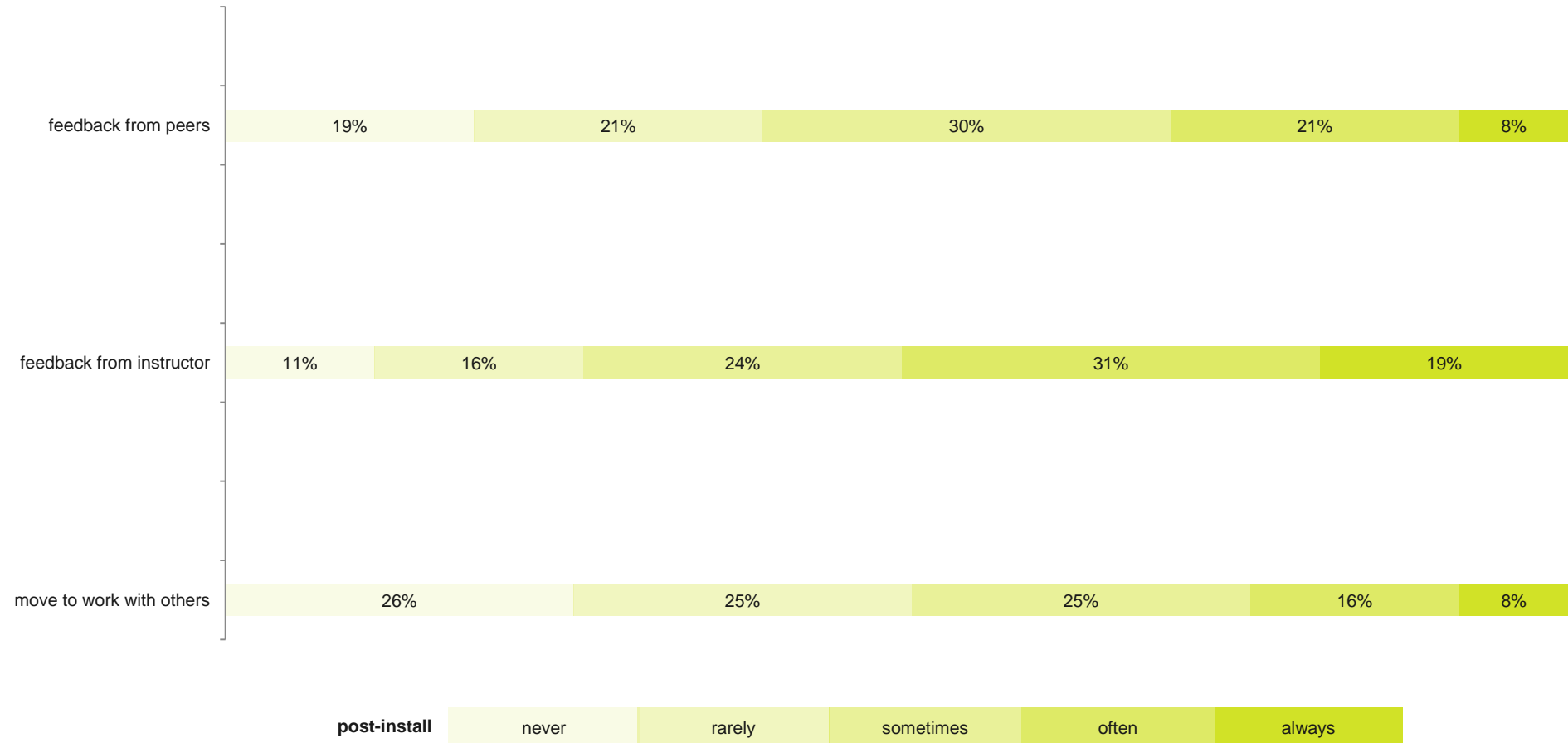
All four segments of the “learner mindset” category range from 69% to 86% of all students agree or strongly agree that they will have success in the future, are motivated, confident to participate, and will achieve a high grade. Furthermore, “learning belonging” depicts 79% of students agree or strongly agree that they have a friend in class and 85% of students agree or strongly agree that the instructor supports learning.

The qualitative comments deeply enriches this survey data, with numerous students speaking to impact that the classroom has had on connection and collaboration. The students speak to the increased ability to connect with their classmates and instructor.

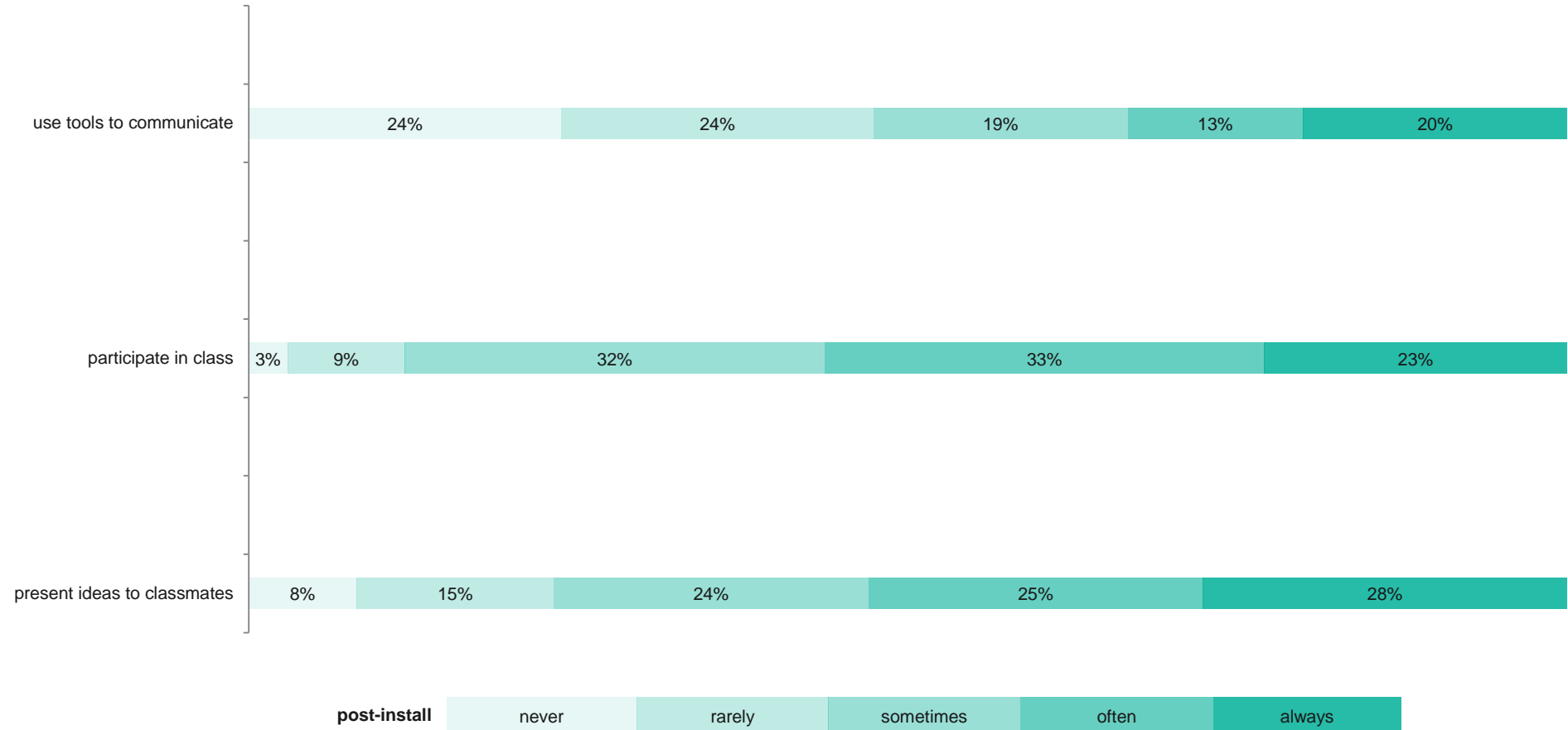
Perceived Effect of Classroom



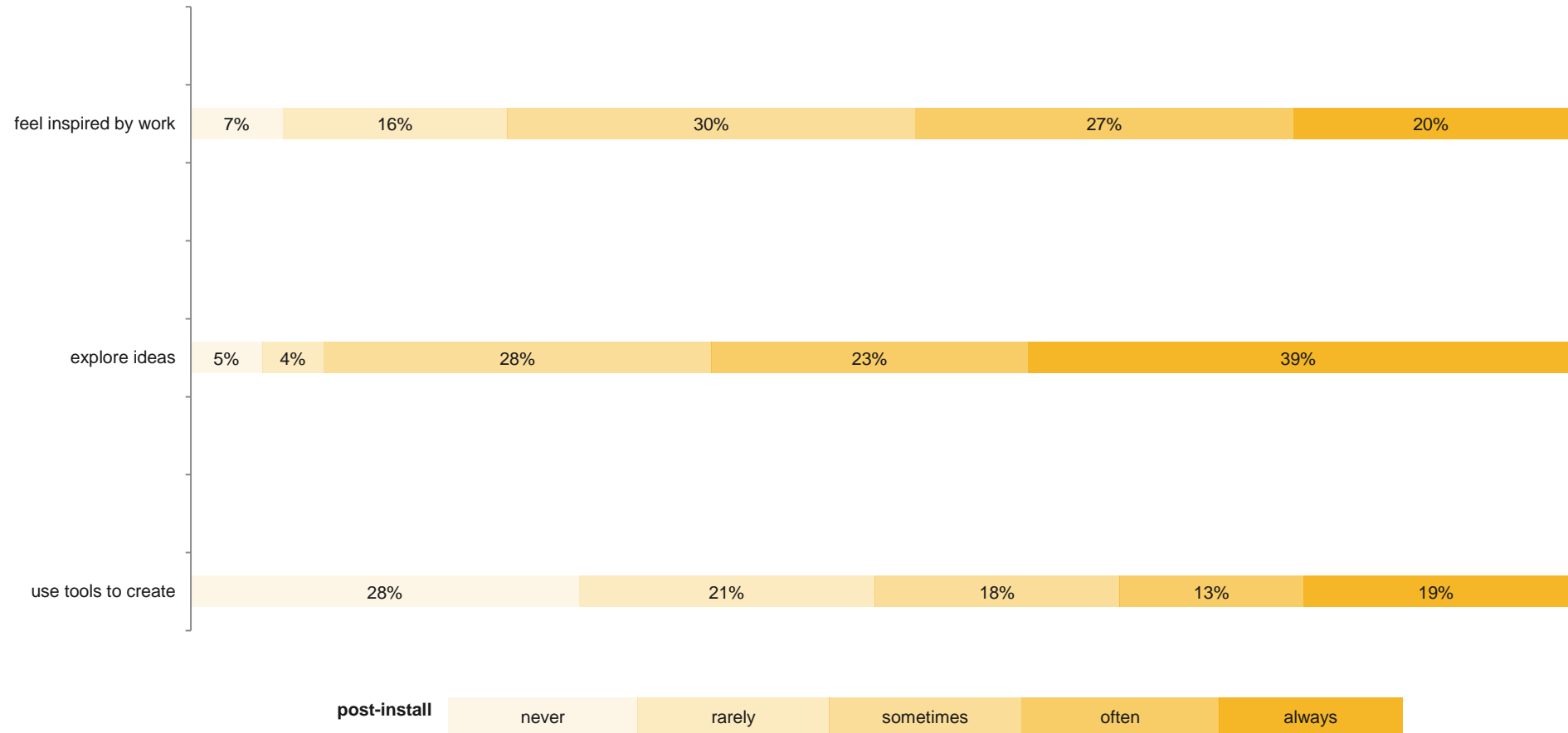
Collaborative Learning



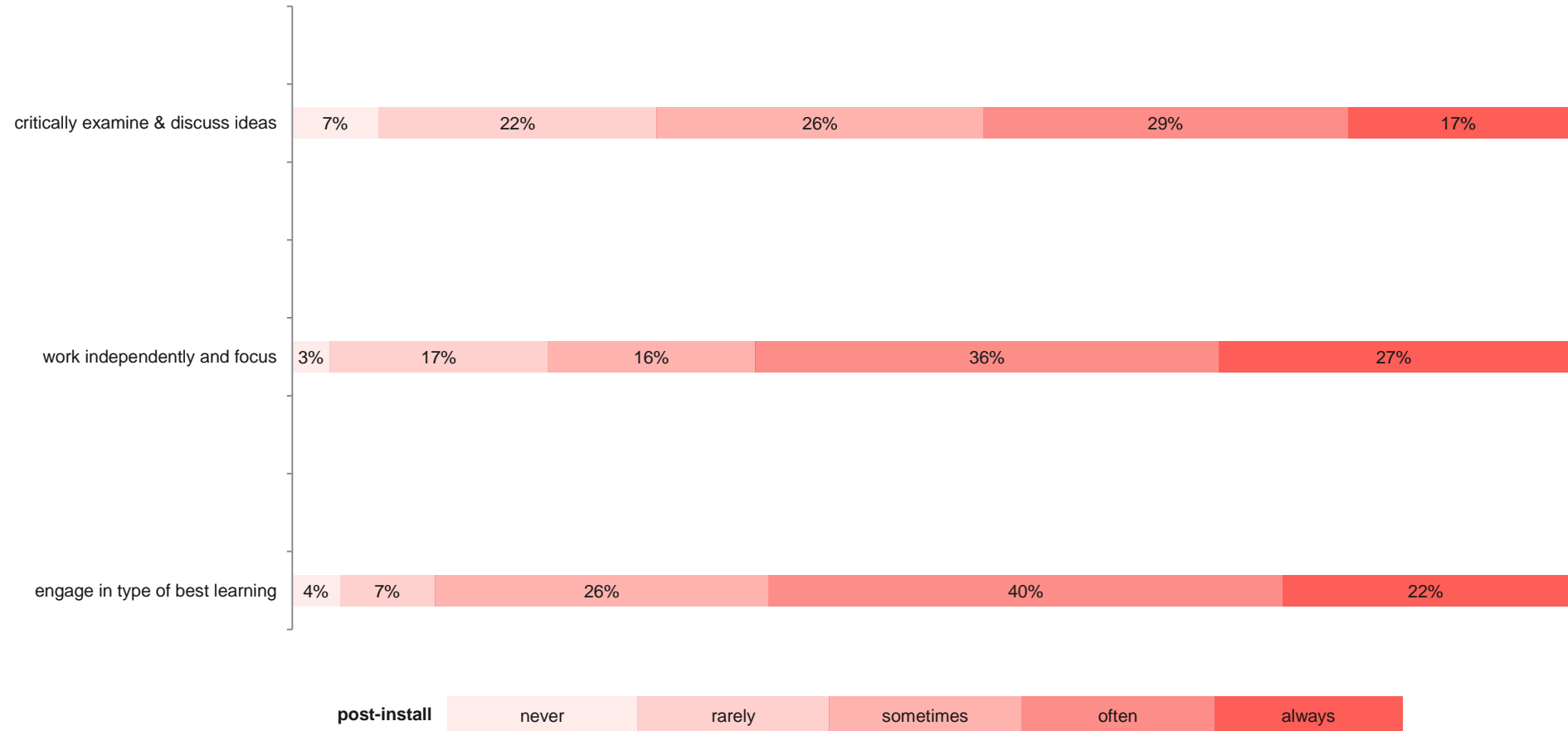
Communication and Participation



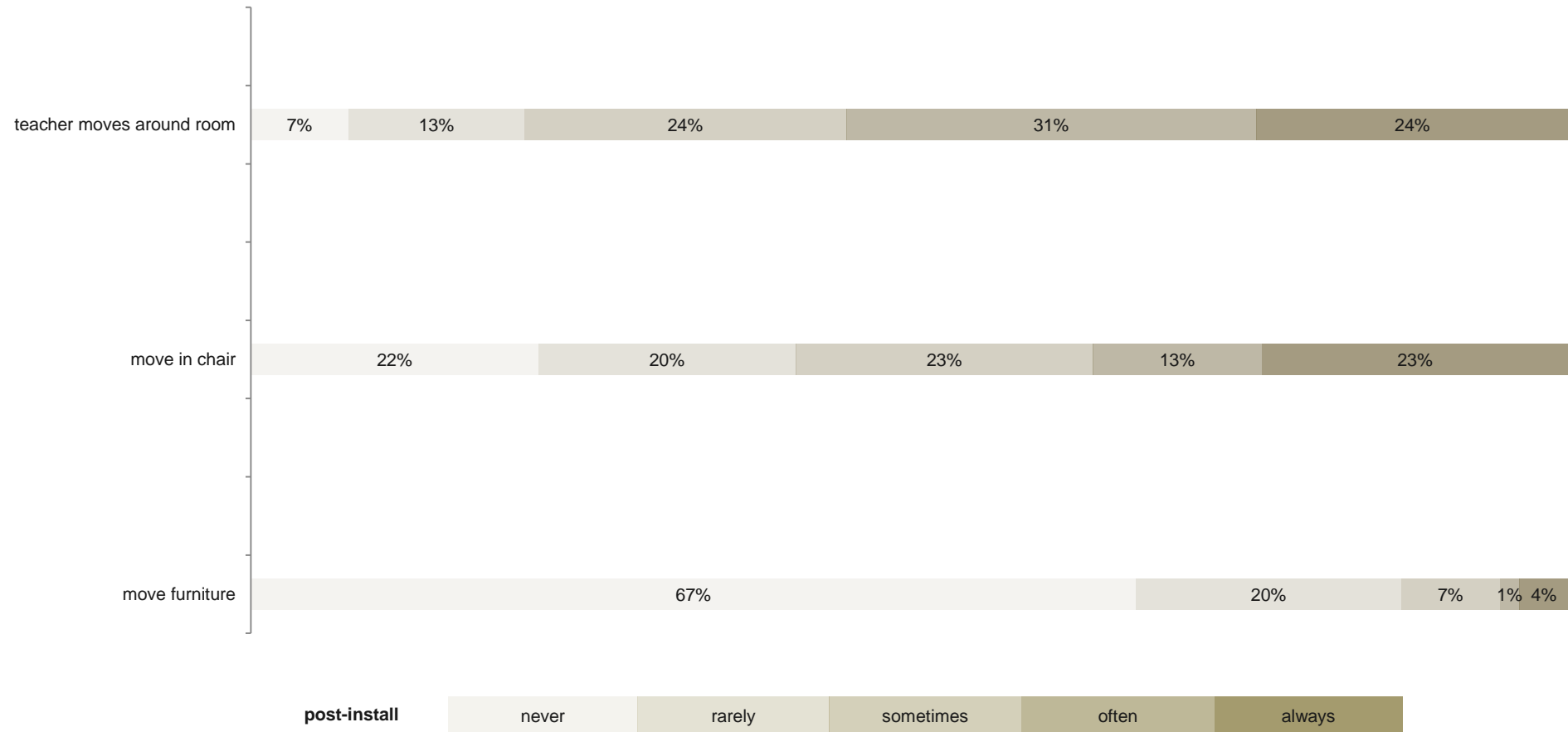
Creative Activities



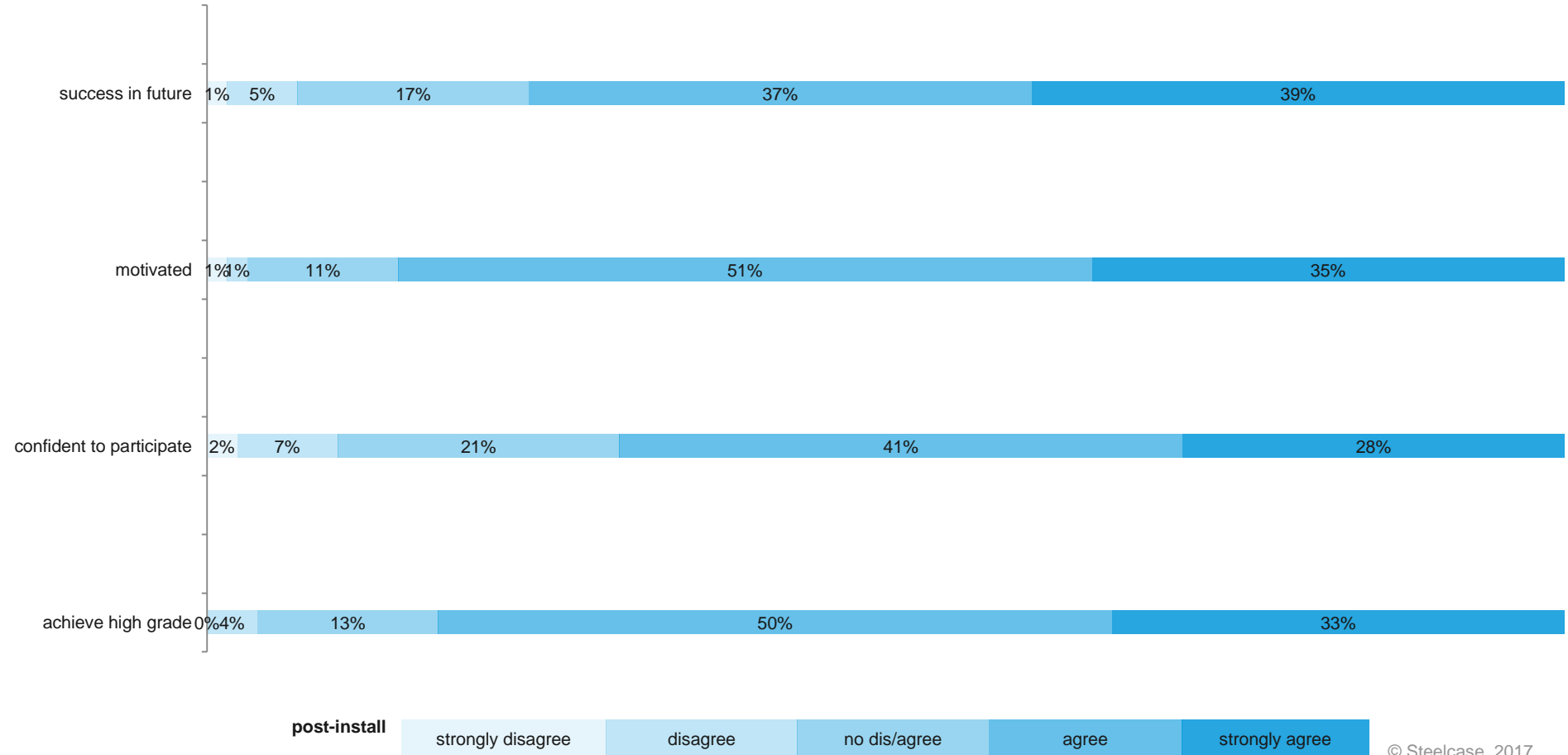
Critical Thinking Activities



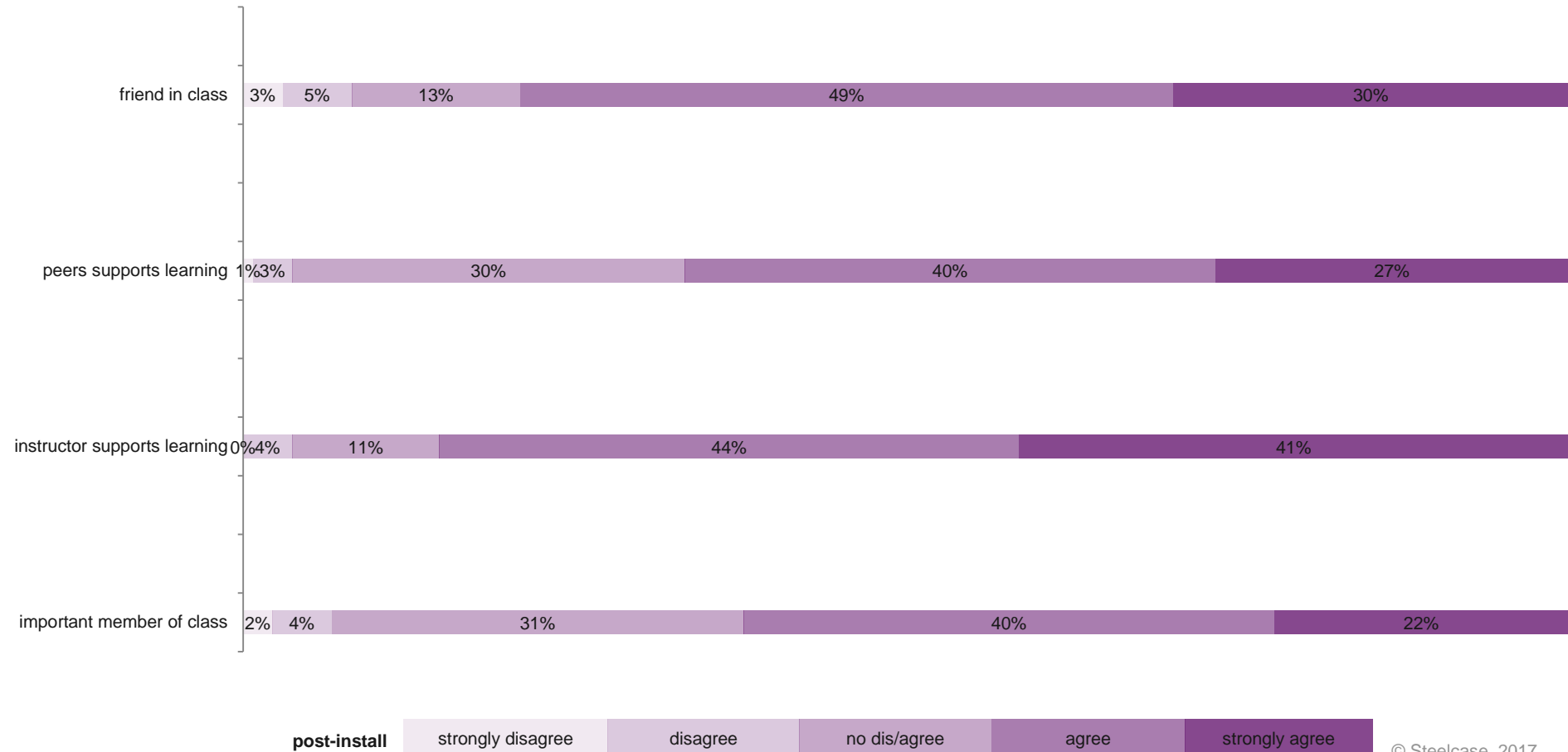
Movement Around Space



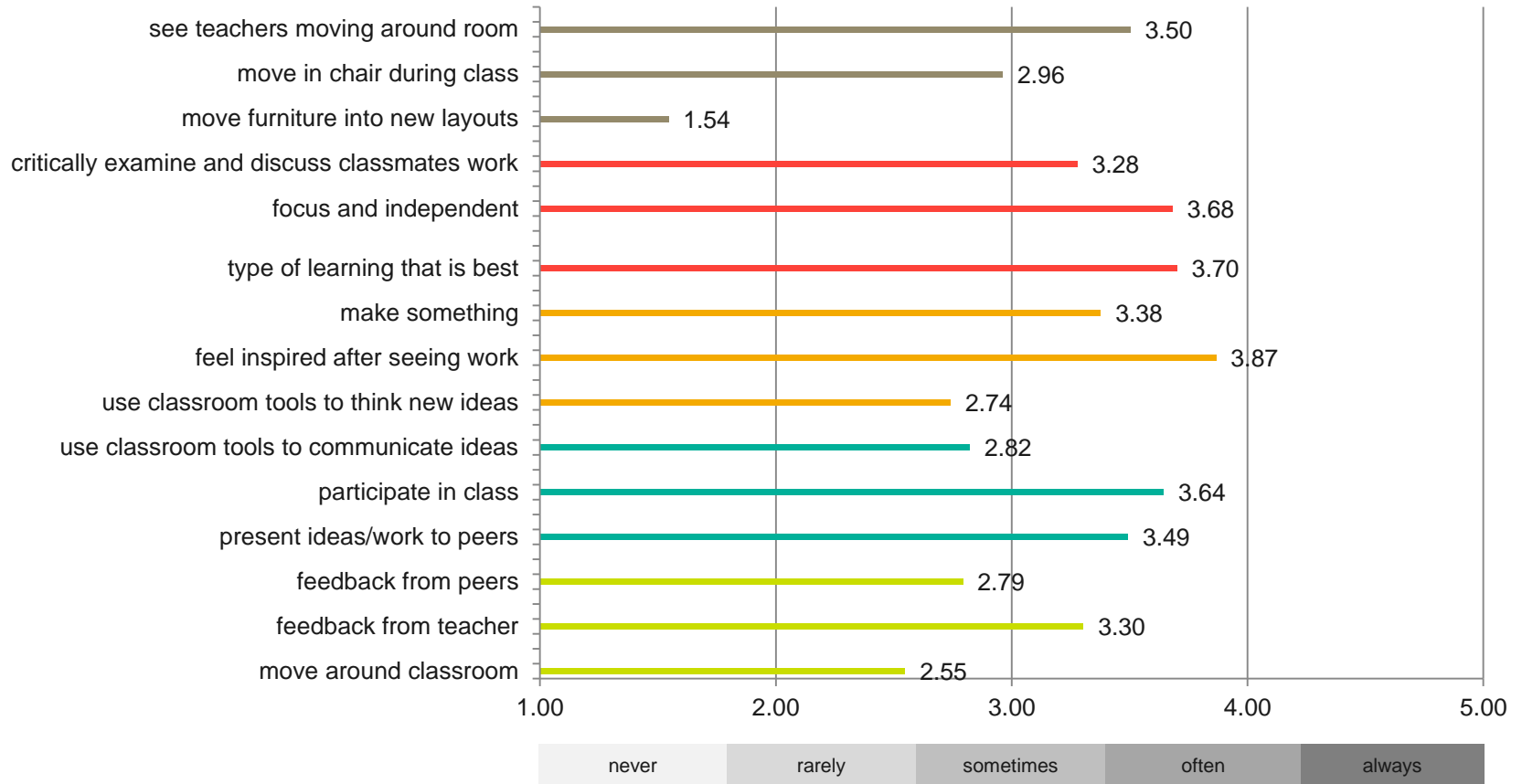
Learner Mindset



Learner Belonging



Overall Questions



Selection of Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install – Connection to Others

I believe it helps me in interacting with others.

It is easier to interact with every individual in the class.

I feel the structure and layout of studying, teaching, and interaction is perfect.

It's good to be able to know who's sitting next to you.

It makes speaking to other students easier

Collaborating in small groups facilitates better learning.

It can be limiting in interaction w/ other students outside the table.

The way the room is layed out is hard to connect with people.

NOTE: The complete list of student responses are listed in the Appendix

Selection of Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install – Engagement

I think it is okay b/c I can see/read everything

Interaction, ability to see instructor, ability for instructor to utilize different types of equipment.

I like the set up because I can work with my team; very helpful because I learn better this way.

The participation and involvement in discussing the material works very well with the class set up.

I enjoy the set up of this classroom because it allows us to engage in class more.

The more comfortable I am, the easier it is to learn.

If it is difficult to see the board or to hear the instructor, or to write notes, then, it will be a difficult environment to learn.

The physical classroom environment makes me more aware and engaged in the material being presented.

Specifically, for this class I don't like the location of the class b/c I can't see what's going on.

NOTE: The complete list of student responses are listed in the Appendix

Instructor Survey Results

Key Indicators

The teacher survey is focused on gathering feedback from the teacher's perspective on their use of furniture and tools within the classroom, the relationship between themselves and the student, their mindset, and student and teacher behaviors in the classroom.

TEACHER

Furniture + Tools

Student + Teacher Relationship

Teacher Mindset

Behaviors

Key Summary from Teacher Surveys

Some highlights found in the results of the teacher survey are highlighted below. The full results are found in the body of this document. Please note that there were five respondents, so the reporting of the data should be taken into consideration with evaluating the results and conclusions.

Furniture and Tools

In the section on furniture and tools, four out of five instructors agree they have the furniture that supports desired teaching and learning.

Relationships

Three respondents 'agree' or 'strongly agree' that the students are working more than the instructor is talking while all five respondents 'agree' or 'strongly agree' that they have the ability to connect with students while they work.

Mindset

Four of five instructors 'agree' or 'strongly agree' they feel/felt prepared to teach and believe they are always learning new things that will make them a better instructor. All five instructors surveyed 'agree' or 'strongly agree' they feel safe to try new things and that their role is to be a coach and mentor to student learning.

Student and Instructor Behaviors

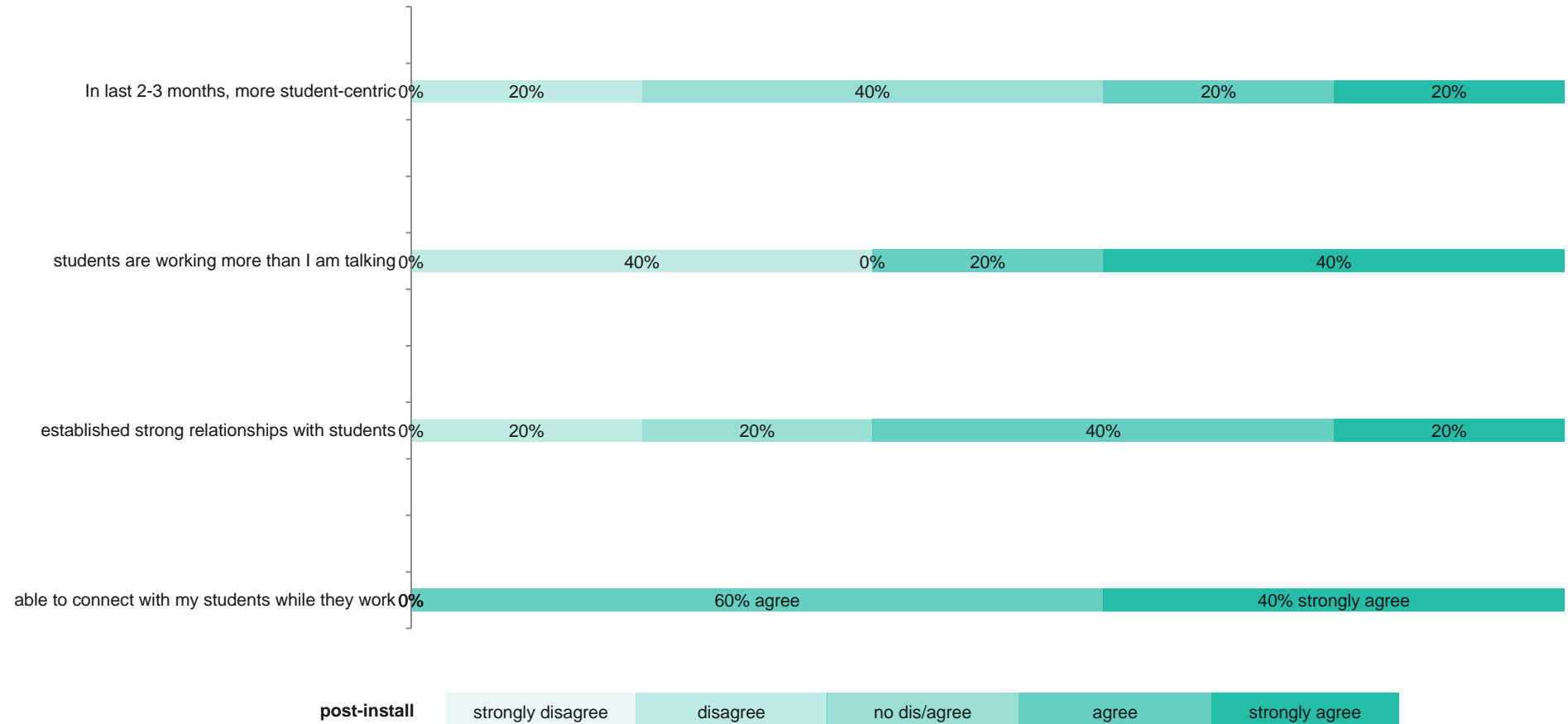
Four instructors 'agree' or 'strongly agree' that students engage in group discussions; however, all respondents noted that students 'rarely' or only 'sometimes' work collaboratively. There may be a possibility to increase the student collaboration work in this space. Four out of five instructors noted that they 'often' or 'always' have deep, meaningful interactions with students and move around the space to coach and mentor.

All qualitative teacher comments are located at the end of this section, no summation was done since there were only a few voices and they can easily and quickly be read in full.

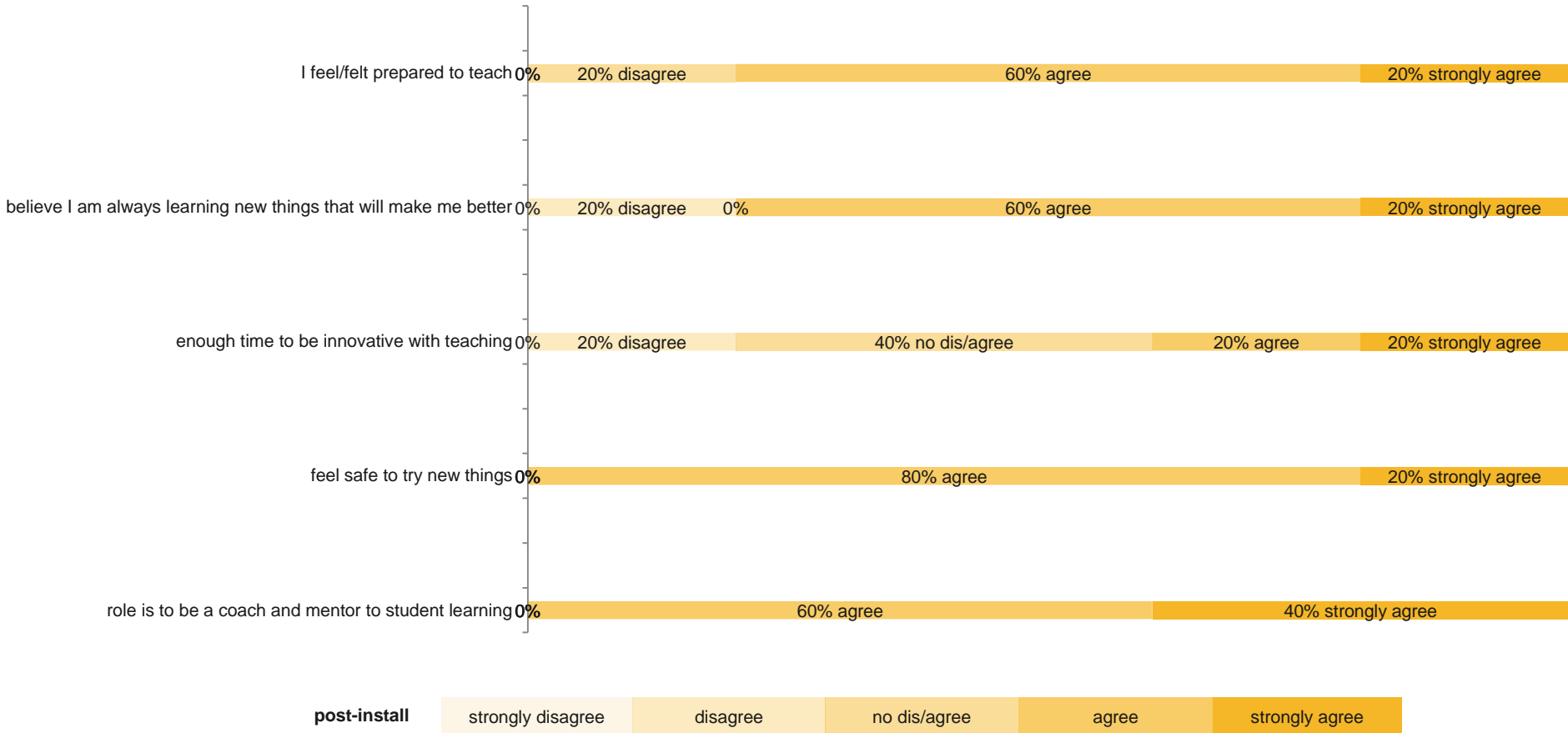
Furniture + Tools



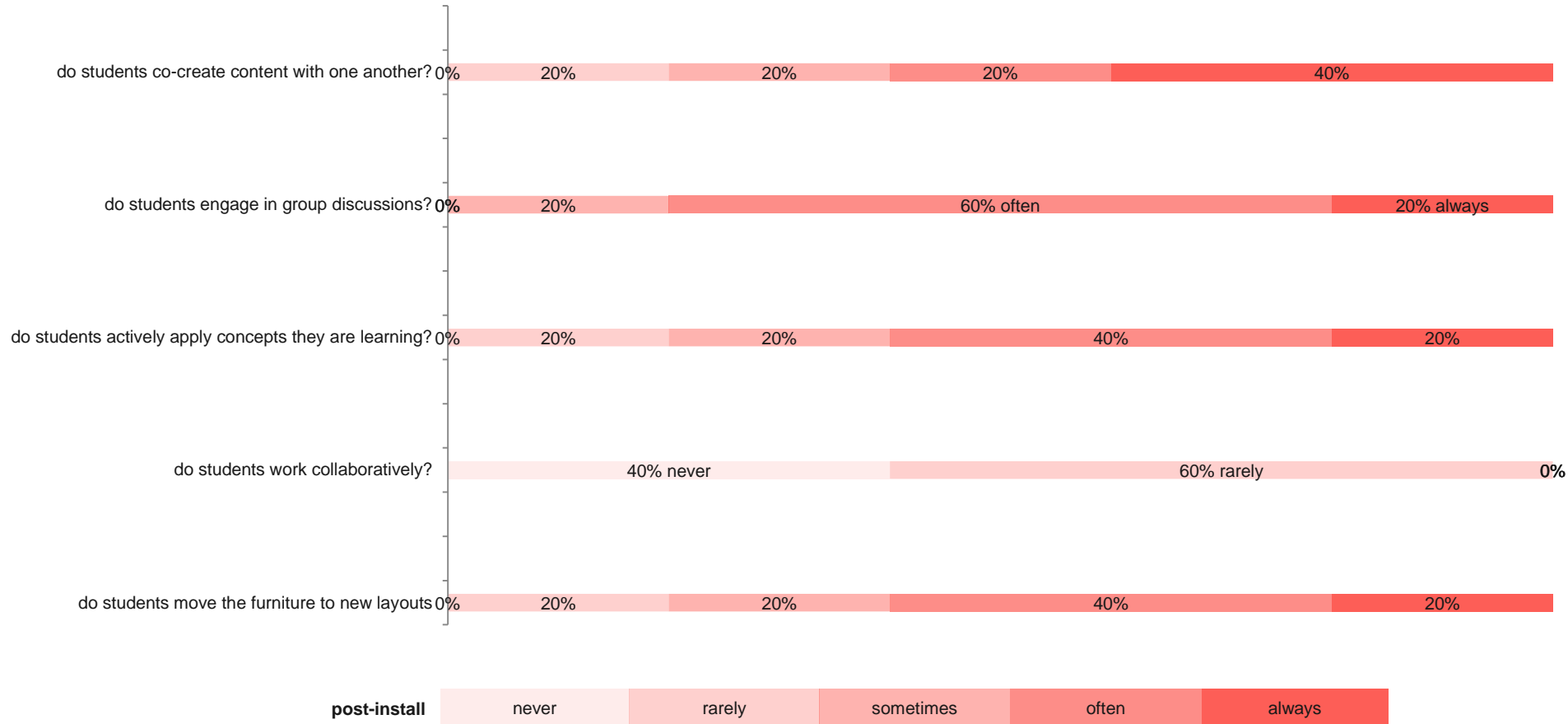
Student + Teacher Relationship



Teacher Mindset



Behaviors : Student



Behaviors : Teacher



Instructor Responses

How do you feel the classroom environment impacts your teaching strategies?

I teach this class in 2 other rooms, as I try to teach them all the same. I do not use specific tools of this room.

N/A

It helps me to walk around & help individual students.

Great room!

The furniture layout is weird!

Instructor Responses

How do you feel the classroom environment impacts your students' learning experience?

Seating arrangement facilitates conversation.

Many screens make for more content I can display

This classroom helps classroom discussion b/c they are facing each other instead of the front of the room.

Group learning

Good for groupwork, but students are too far apart from me & each other.

Instructor Responses

How do you define active learning?

Students doing more than just listening to lecture

Using multiple media outlets to convey information

Students coming to the conclusion on their own instead of a teacher telling them.

Meaningful interaction between prof & student

N/A

Instructor Responses

How has your understanding of active learning evolved since your teaching environment has changed?

Not much has changed.

N/A

I now understand the importance of it in student learning.

Grown to appreciate the benefits more

N/A

Appendix

Scale

	HOW OFTEN DOES BEHAVIOR HAPPEN?
1	never
2	≈ 1-2x/month
3	at least 1x/week
4	multiple times a week
5	multiple times/class

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

Well enough

No windows = bad

Doesn't hurt, doesn't help that much.

It doesn't

Not too much.

It doesn't

The way the room is layed out is hard to connect with people.

Specifically, for this class I don't like the location of the class b/c I can't see what's going on.

It's very easy to speak what you think / opinion

Great

The physical classroom environment makes me more aware and engaged in the material being presented.

Encourages me to pay attention.

Neutral

N/A

I won't agree that it helps me.

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

I believe it helps me in interacting with others.

If it is difficult to see the board or to hear the instructor, or to write notes, then, it will be a difficult environment to learn.

It is easier to interact with every individual in the class.

It's great

Environment is adequate

I feel very motivated

It impacts it in a good, protective way.

It's relaxing and comfortable.

It aids in an enhanced learning experience.

Very comfortable

I feel the structure and layout of studying, teaching, and interaction is perfect.

Somewhat

It's good to be able to know who's sitting next to you.

Creates hands-on experience

It's fine

Meh neutral

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

They don't.

It makes speaking to other students easier

It helps me focus and actually learn the material.

Easier to see boards since there's so many and easier to communicate with people at my table.

Interacting in class helps more with understanding a concept

You're able to easily work with others

The more comfortable I am, the easier it is to learn.

I like the table spaces

It increases my learning experience.

It forces me to go to class and pay attention

Very helpful

It doesn't really

Small spaces can get really frustrating to be in (LCA1) and becomes distracting

No different than any other class

Chairs are broken height can't be adjusted

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

It can help the way you feel about the experience

It has no affect.

Collaborating in small groups facilitates better learning.

It impacts my performance positively if the environment is inviting and safe.

It does not.

It has very little to do with my learning

That is debatable

It impacts positive my learning experience

It does not impact it.

It can be limiting in interaction w/ other students outside the table.

If I am comfortable then I will have a positive learning experience.

Good space, too early.

Not bothered by it

A lot, especially the lighting & temperature.

I enjoy the set up of this classroom because it allows us to engage in class more.

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

Greatly

It's okay

It doesn't

Yes

It works well.

This is my fav class cause of the classroom environment.

It positively impacts the learning environment.

It doesn't very much. Too focused.

Strongly. If the classroom is uncomfortable it doesn't help. THE CHAIRS ARE TOO HIGH.

The chairs squeak.

Advances it.

Great

It doesn't.

It directly impacts it. Certain environments are impossible to learn in.

It makes it easier by it's modern layout.

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

Like it a lot.

The squeaking of chairs is annoying and distracting!

Allows more open and necessary communication in class.

Classroom is a necessity.

Makes it easier to communicate ideas.

Good

Easier to interact than other rooms.

The participation and involvement in discussing the material works very well with the class set up.

The set up really works for someone like me for when I either have or don't have my glasses.

Enhances the experience

Positively, especially in comparison to other classrooms.

Positively

I like the set up because I can work with my team; very helpful because I learn better this way.

Doesn't

Makes for an easier way to interact with classmates.

Student Responses

How do you feel the physical classroom environment impacts your learning experience?

Post-Install

Very easy to see; teamwork

The resources facilitate easy learning.

I appreciate the multiple projector screens and collaboration that the table layout perpetuates.

Doesn't

Lighting 10/10

Purple and green don't go together. Maybe if you replaced the purple with blue.

Not at all.

Easy to focus

It is a more open concept & easier to move around. I'm never tired & there is good lighting.

In a good way

I think it is okay b/c I can see/read everything

I wish it was row by columns

Positively

Interaction, ability to see instructor, ability for instructor to utilize different types of equipment.

The smaller class size, I feel, greatly improves my learning experience. I am able to easily connect with my professor and communicate ideas.

Gives comfort while learning.

It is very beneficial

Vital Skills

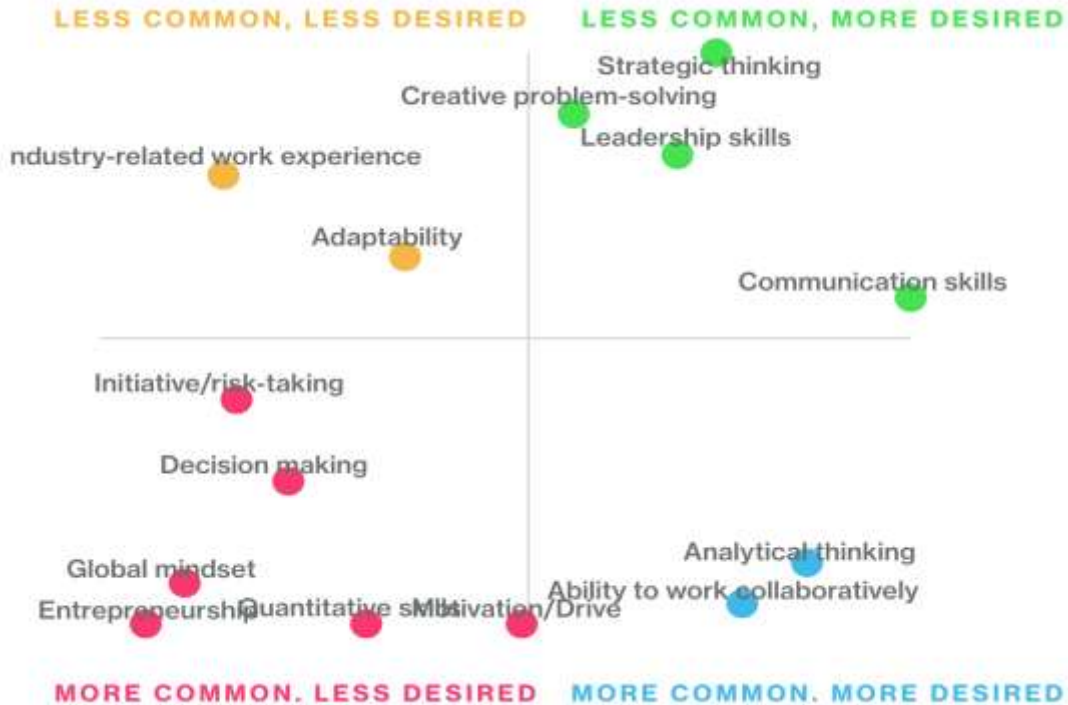
Appendix

In a 2014 The National Association of Colleges and Employers conducted a survey with 260 employers, having them rank the most important skills for potential new hires to possess. The top three skills reported were:

1. Ability to **work in a team** structure
2. Ability to make decisions and **solve problems**
3. Ability to **communicate** verbally with people inside and outside an organization (Forbes, 2015)

Vital Skills

Appendix



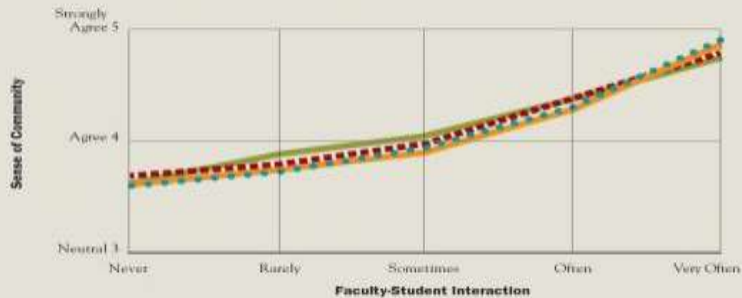
When looking across multiple industries, **Creative problem solving**, **Critical thinking**, **Communication** and **Collaboration** skills were identified as desired skills by a survey of recruiters from over 600 companies.

Vital Skills

Appendix

Figure 1. Relationship between four dimensions of faculty-student interaction and students' sense of community

- Discussed course topics, ideas, or concepts with a faculty member outside of class
- Discussed your academic performance with a faculty member
- The faculty challenged students' views and perspectives on a topic during class
- The faculty presented issues and problems in class from different cultural perspectives



NOTE: "Sense of Community" is determined by taking the mean of the six community items in the OPI (1 = Strongly Disagree; 5 = Strongly Agree):
(1) I have a strong sense of affiliation with my college/university;
(2) I feel that my college/university community honors diversity and internationalism;
(3) I understand the mission of my college/university;
(4) I am both challenged and supported at my college/university;
(5) I have been encouraged to develop my strengths and talents at my college/university; and
(6) I feel I am a part of a close and supportive community of colleagues and friends.

Between August 2011 and June 2013, 37,967 undergraduates who were enrolled at more than a hundred four-year institutions completed the Global Perspective Inventory, a survey that examines multiple dimensions around a student's ability to take a global perspective (seeing and understanding multiple perspectives).

Analysis on the data looking at 6 dimensions of student belonging and community on campus showed that faculty-student interactions foster a sense of belonging.

A sense of belonging is essential for students when they encounter unfamiliar environments and negotiate the doubts, fears, and tensions associated with the transition to college. Faculty members can allay students' fears, assuage their doubts, and help them negotiate an often precarious transition.

Braskamp, D. C., Braskamp, L. A., & Glass, C. R. (2015) Belonging: The gateway to global learning for all students. *Liberal Education*.

Belonging

Appendix



The need to belong is foundational for our overall wellbeing. Famed psychologist Abraham Maslow noted that proper, adequate, and timely satisfaction of the need for belongingness leads to physical, emotional, behavioural, and mental well-being (Maslow, 1968)

Studies consistently reveal that students who experience a sense of belonging in educational environments are **more motivated, more engaged** in school and classroom activities, and **more dedicated** to school (Osterman, 2000)

Existing research suggests that students who feel that they belong to learning environments report higher **enjoyment, enthusiasm, happiness, interest, and more confidence** in engaging in learning activities, whereas those who feel isolated report greater anxiety, boredom, frustration, and sadness during the academic engagement that directly affects academic performance (Furrer & Skinner, 2003)

Mindset and Self-Expectation

Appendix



In an analysis of over 1200 studies, John Hattie found that one of the largest effects on student learning was the student's own expectations. Another one of the largest effects was the expectations that teachers had for their students (Hattie, 2015).

The literature on motivation and school performance in younger school children suggests that expectations shape the learning experience very powerfully. For example, classic studies in the psychology literature have found that merely stating an expectation results in enhanced performance, that higher expectations result in higher performance, and that persons with high expectations perform at a higher level than those with low expectations, even though their measured abilities are equal.”

(as cited in Hanover Research, 2012)

References

Appendix

VITAL SKILLS

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Appendix

BELONGING

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Appendix

STUDENT EXPECTATIONS AND MINDSET

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