



Students and Faculty Perceptions of Standing and Dynamic Sitting in the University Classroom

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ABSTRACT

Background: This study investigated the quantitative and qualitative perceptions of university students and faculty with alternative workstations (standing, sit-stand, and dynamic sitting) in the classroom. Although alternative workstations have health benefits by reducing prolonged periods of sitting, questions still remain on their acceptability.

Methods: University students (N=1005) and faculty (N=218) completed a mixed-method online survey assessing their perceptions of alternative workstations in the classroom.

Results: A large portion of students believed standing, sit-stand, and to a lesser extent dynamic sitting options should be available for students in the university classroom. A majority of the students also stated that they would use these options if they were available in the university classroom.

Conclusions: Thus, we recommend providing standing, sit-stand, and to a lesser extent dynamic sitting options in university classrooms to allow students to receive health benefits as they learn.

Keywords: University student; Sedentary behaviour; Standing; Dynamic sitting; Acceptability

INTRODUCTION

Sedentary behavior is characterized by any waking behavior with low energy expenditure (≤ 1.5 metabolic equivalents), while in a sitting, reclining, or lying posture [1]. Increased sedentary behavior, independent of moderate-to-vigorous physical activity, is a risk factor for many health problems including but not limited to: diabetes, cardiovascular disease, cancer, and depression [2-5]. Unfortunately, university students spend more than eleven hours per day being sedentary [6-8]. For students, a possible area where sedentary behavior can be reduced is in the classroom. At present, students are forced to sit for all their lectures for their entire university education, accumulating to large sums of sedentary behavior. Standing and dynamic sitting (i.e. sit in a more active way: chairs without back support, unstable chairs, exercise balls, etc.) appear to be a way to reduce university classroom sedentary behavior and potentially improve health without negatively impacting classroom performance [9-13].

The World Health Organization (2018) defines health promotion as "the process of enabling people to increase control over, and to improve their health [13]. It moves beyond a focus on individual behaviour towards a wide range of social and environmental intervention." By that definition, providing standing and

dynamic sitting options in the university classroom is an effective environmental intervention that would promote a health-supportive environment and healthy behaviour change. It would enable students to increase control over their health and sedentary behaviour in the university classroom and function as a tool to help improve their health.

Although alternative workstations have health benefits and do not appear to impact classroom performance questions still remain on their acceptability. To our knowledge, only one published study has examined the acceptability of introducing standing desks in college classrooms [14]. The majority of students (95%) reported they would prefer the option to stand in class, and most students (76.6%), as well as, instructors (86.6%) reported being in favor of introducing standing desks into college classrooms. Although the work by Benzo et al. (2016) provides preliminary supports the acceptability of introducing standing desks in college classrooms, it is not without limitations. These researchers, for instance, did not include other options such as dynamic sitting chairs that would not impact visibility or cause access issues. Further, they did not differentiate between standing only and sit-stand workstations or ask students and faculty the same questions on their perceptions of these alternative workstations. Additionally, no qualitative

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measures were included, that would provide an in-depth look at the barriers, facilitators, and perceptions of alternative workstation use.

Therefore, one purpose of this study was to quantitatively determine the perceptions of both university students and faculty in using alternative workstations (standing, sit-stand, and dynamic sitting) in the classroom. Another purpose was to qualitatively examine the barriers, facilitators, and other issues of using alternative workstations in the university classroom. The qualitative information provided in this study will allow for a more in depth look at students' perceptions of alternative workstations in the university classroom. The qualitative information also will help inform some of the quantitative findings.

METHODS

Participants

University students: Participants (N=1005) were students from the University of Western, Ontario and their demographic characteristics can be found in Table 1. Students older than 18 years of age and fluent in English were eligible to participate. Participants were recruited by responding to advertisement forms. All participants were recruited and data were collected from September 18th to November 7th 2017. Participants provided implied informed consent to participate in the survey and were given the option to provide their email address to be entered into a draw to win \$200. The Western University Health Science Research Ethics Board approved this research intervention.

University faculty: Participants (N=218) were faculty members from the University of Western, Ontario and their demographic characteristics can be found in Table 2. Participants were recruited by responding to an email. All participants were recruited and data were collected from September 18th to November 23rd 2017. Participants provided implied informed consent to participate in the survey and were not compensated for their participation. The Western University Health Science Research Ethics Board approved this research intervention.

Design, intervention, and outcome measures: Survey monkey software was used to create and administer the online survey [15]. The study used a mixed-method approach that collected both quantitative and qualitative data. The survey consisted of six sections: letter of information and implied consent, demographics, sedentary behavior questionnaire, leisure-time physical activity questionnaire, likert-scale questions that tapped into perceptions of alternative workstations in the classroom , and open-ended questions that allowed students to write about barriers, facilitators, and other issues related to alternative workstations in the classroom [14,16,17].

STATISTICS

Quantitative analysis: Statistics were completed on SPSS (Statistical Package for the Social Science) software 2016 version 24. Missing data were not included in the analysis. A Chi square analysis (X²) and Cramer's V (V) was utilized to examine frequency differences between the perceptions of alternative workstations questions. The level of significance (p) was set at .05.

Qualitative analysis: ATLAS.ti was used to assist in coding qualitative data. Answers were uploaded into ATLAS.ti directly

Table 1: University Student Participant Demographics (N=1005).

Characteristics	N	Percent	Mean	SD
Age (years)	1004		20.76	2.72
BMI (kg/m²)	998		23.41	4.8
Sedentary Behavior (h/d)	706		13.33	4.1
Physical Activity	839			
Active		30.39%		
Moderate		42.79%		
Inactive		26.82%		
Gender	1002			
Male		26.95%		
Female		72.75%		
Other		0.30%		
Ethnicity	1000			
Caucasian		59.40%		
Asian		22.00%		
Other		18.60%		
Faculty				
Faculty of Arts & Humanities		4.99%		
Richard Ivey School of Business		2.00%		
Certificates & Diplomas		0.40%		
Faculty of Education		1.10%		
Faculty of Engineering		6.29%		
Graduate & Postdoctoral Studies		0.80%		
Faculty of Information & Media Studies		3.19%		
Interdisciplinary Studies		2.99%		
Faculty of Law		0.90%		
Schulich School of Medicine/ Dentistry		4.49%		
Don Wright Faculty of Music		2.79%		
Faculty of Science		23.85%		
Faculty of Social Science		22.55%		
Other		0.90%		
Degree	1003			
Undergraduate		85.74%		
Graduate (Masters)		9.77%		
Graduate (Doctoral)		3.19%		
Graduate (Post Doctoral)		0.20%		
Other		1.10%		
Amount	1003			
Full Time		96.51%		
Part Time		2.89%		
Other		0.60%		

Note. BMI: Body Mass Index; h/d: Hours per day; kg: Kilogram; m: Meter; N: Number of participants; SD: Standard Deviation

from survey monkey [15]. A conventional content analysis with a general inductive approach was used to create qualitative themes [18,19].

Conventional content analysis is often used with a study design

^{*}Individual sedentary behavior > 24 h/d were not included in calculating mean or SD $\,$

Table 2: University Faculty Participant Demographics (N=218).

Characteristics	N	Percent	Mean	SD
Age (years)	215		49.52	10.8
BMI (kg/m²)	215		25.51	5.07
Sedentary Behaviour (h/d)*	173		10.8	3.44
Physical Activity	190			
Active		37.89%		
Moderate		41.05%		
Inactive		21.05%		
Gender	217			
Male		53.00%		
Female		47.00%		
Ethnicity	202			
Caucasian		89.11%		
Asian		5.45%		
Other		5.44%		
Faculty	214			
Faculty of Arts & Humanities		11.68%		
Richard Ivey School of Business		7.01%		
Faculty of Education		2.80%		
Faculty of Engineering		4.21%		
Faculty of Health Science		14.02%		
Faculty of Information & Media Studies		3.74%		
Interdisciplinary Studies		3.27%		
Schulich School of Medicine/ Dentistry		17.76%		
Don Wright Faculty of Music		1.87%		
Faculty of Science		14.95%		
Faculty of Social Science				
Туре	216			
Lecturer		13.89%		
Assistant		22.69%		
Associate		34.26%		
Full		25.00%		
Other		4.17%		
Amount	217			
Full Time		85.71%		
Part Time		10.60%		
Other		3.69%		

Note. BMI: Body Mass Index; h/d: Hours per day; kg: Kilogram; m: Meter; N: Number of participants; SD: Standard Deviation *Individual sedentary behavior > 24 h/d were not included in calculating mean or SD

whose aim is to describe a topic, in this case to qualitatively examine the barriers, facilitators, and other issues of using alternative workstations in the university classroom [18]. This approach is appropriate when existing theory or research literature on a topic is limited [18]. Researchers avoid using preconceived categories, instead allowing the categories and names for categories to originate from the data [18]. A conventional content analysis starts with observation, codes are defined during data analysis, and codes are derived from the data [18]. The coding process of a general inductive approach is as follows: researchers initially read through text data, then identify specific segments of information, then label the segments of information to create categories, then reduce overlap and redundancy among the categories, then finally create a model incorporating most important categories [19].

A conventional content analysis with a general inductive approach

was used in the current study as existing theory and research literature is limited and no qualitative data on acceptability of alternative workstations in the university classroom had previously been completed. Using the general inductive content analysis SS and SD read and coded the data independently and then compared to enhance the data's confirmability. Any inconsistencies were resolved by discussion [20].

RESULTS

Quantitative data

Quantitative data and statistics on the perceptions of alternative workstations in the university classroom can be found in Table 3 for students and in Table 4 for university faculty.

University students: Few students have tried adjustable standing

Table 3: Student Perceptions of Alternative Workstations in the University Classroom.

Outcome	Adjustable Standing Only	Adjustable Sit- Stand	Dynamic Sitting	Chi Square
Q1: Have you every tried	·			
Yes	15.40%	14.41%	12.59%	
No	84.60%	85.59%	87.41%	$\chi^{2}(2)=2.69, p=.26, V=.04$
N	805	805	802	
Q2: Do you believe should be made available in the classrooms for students?				
Yes	51.98%	61.99%	34.75%	
No	22.52%	15.28%	27.00%	$\chi^{2}(4)=125.56$, p<.01, V=.16
Undecided	25.50%	22.73%	38.25%	
N	808	805	800	
Q3: If you answered yes: What classroom size do you think would be well suited for?				
Small	43.37%	40.31%	38.36%	
Medium	38.23%	38.65%	34.26%	X ² (6)=23.46, p<.01, V=.09
Large	11.59%	14.90%	17.13%	
Very Large	6.81%	6.15%	10.25%	
N	506	564	365	
Q4: If you answered yes: Where would you prefer to be located?				
Back Row	59.71%	54.26%	32.19%	
Middle Rows	6.86%	10.71%	14.38%	$X^{2}(8)=210.52$, p<.01, $V=.27$
Front Row	2.48%	3.16%	11.47%	
End of Rows	21.17%	19.34%	14.38%	
Every Row	9.78%	12.53%	27.57%	
N	504	562	369	
Q5: If a/an were available to use in class, I would use it?				
Never	25.44%	18.49%	29.99%	
1 Class	20.20%	22.89%	20.63%	$X^{2}(8)=89.12, p<.01,$ V=.14
Irregularly	32.42%	25.03%	19.39%	
Regularly	17.17%	21.89%	17.19%	
Always	4.24%	11.70%	12.79%	
N	802	795	727	

only (15.40%), adjustable sit-stand (14.41%), and dynamic sitting (12.59%) workstations (Table 3, Q1). A large portion of students believe adjustable standing only (51.98%) and adjustable sit-stand (61.99%) workstations should be made available in the classroom for students (Table 3, Q2). A smaller portion of students believe dynamic sitting (34.75%) workstations should be made available in the classroom for students (Table 3, Q2). Students believe adjustable standing only (43.37%), adjustable sit-stand (40.31%), and dynamic sitting (38.36%) are well suited for small classrooms (Table 3, Q3). Students prefer adjustable standing only (59.71%), adjustable sit-stand (54.26%), and dynamic sitting (32.19%) to be located in the back row of university classrooms (Table 3, Q4). If an/a adjustable standing only, adjustable sit-stand, and dynamic sitting workstation, were available in class students stated (74.56%, 81.51%, and 70.01% respectively) that they would use if for at least one class (Table 3, Q5).

University faculty: Few university faculty believe adjustable standing only (21.93%), adjustable sit-stand (25.00%), and dynamic sitting (19.46%) workstations should be made available in the classroom for students (Table 4, Q6). University faculty believe adjustable standing only (30.59%), adjustable sit-stand (34.34%), and dynamic sitting (27.71%) workstations are well suited for small classrooms (Table 4, Q7). University faculty prefer adjustable standing only (53.95%), adjustable sit-stand (47.06%), and dynamic sitting (23.61%) workstations to be located in the back row of university classrooms (Table 4, Q8).

Qualitative data

Themes that emerged from open-ended questions that students answered for alternative workstations in the classroom can be found in Figure 1. Figure 1 also lists the percentage of quotes found in each category for each alternative workstation. Table 5

 Table 4: Faculty Perceptions of Alternative Workstations.

Outcome	Adjustable Standing Only	Adjustable Sit-Stand	Dynamic Sitting	Chi Square	
Q6: Do you believe should be made available in the classrooms for students?					
Yes	0.2193	0.25	0.1946		
No	39.04%	38.04%	36.22%	977(4) 2.92 , 50 U 05	
Undecided	39.04%	36.96%	44.32%	$X^{2}(4)=2.82$, p=.59, V=.05	
N	187	184	185		
Q7: If you answered yes: What classroom size do you think would be well suited for?					
Small	30.59%	34.34%	27.71%		
Medium	34.12%	33.33%	36.14%		
Large	20.00%	19.19%	22.89%	$\chi^{2}(6)=1.26, p=.97, V=.06$	
Very Large	15.29%	13.13%	13.25%		
N	48	50	39		
Q8: If you answered yes: Where would you prefer to be located?					
Back Row	53.95%	47.06%	23.61%		
Middle Rows	7.89%	8.24%	9.72%		
Front Row	2.63%	2.35%	15.28%	97/0) 20 40 4 01 W 21	
End of Rows	25.00%	23.53%	22.22%	$X^{2}(8)=28.49$, p<.01, V=.31	
Every Row	10.53%	18.82%	29.17%		
N	50	53	40	_	

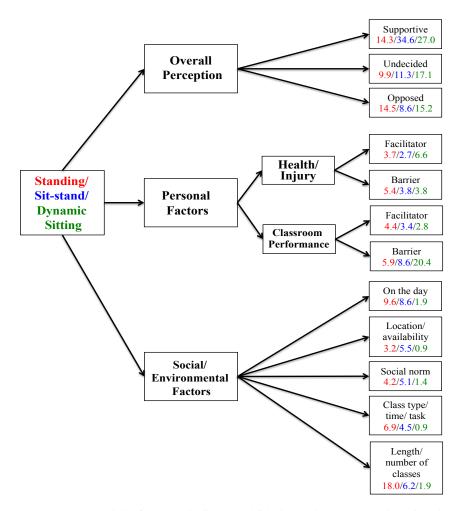


Figure 1: University student qualitative responses (%) of standing (red), sit-stand (blue), and dynamic sitting (green) in the university classroom. Note: Coloured percentages add up to 100.

Table 5: Example Quotations Supporting Themes Identified for Alternative Workstations.

Themes	Categories	Adjustable Standing Only	Adjustable Sit-Stand	Dynamic Sitting
Overall Perception	Supportive	"I think it's a great idea! We spend so much time sitting to study that it's important to stand at some points - and in class is a perfect time."	"I love the fact that I can sit when I'm tired standing"	"I would enjoy having the option to move around during class"
	Undecided	"I would have to try it out to decide how often I would use one in class"	"I would at least try it out to see if I preferred it"	"I would try it and see if I liked it"
	Opposed	"It does not interest me as I prefer to sit down"	"Why stand when I can sit?"	"Doesn't interest me"
Personal Factors	Health/ Injury Facilitator	"I recognize that I have an unhealthy diet and work regimen and this is a slight way to counter it using minimal effort"	"I could maintain a 1:1 ratio of standing/sitting at my discretion as directed by my Physiotherapist."	"I believe it will help with core strength and keep your body moving so you don't get stiff."
]	Barrier	"I have really bad joint pain in my knees"	"I have a knee problem"	"I have a sensitive neck and back and require standard chairs with a back if I am to sit"
Performance	Facilitator	"It would be good to use on days when you are really tired and unfocused! It would definitely help to stay awake and stay focused"	"It's the perfect solution as it allows both sitting and standing to change position and keep focus"	"This type of desk would be perfect to keep me engaged and alert"
	Barrier	"I prefer to sit down when working, and personally feel that standing would cause me to be distracted."	"It would be distracting to other students"	"I think this would be very distracting"
	Depends on the day	"Depends on how I feel that day"	"It's good to have options, depending on how sedentary the day is"	"Depends when, how busy my day is and if it's after practice"
	Depends on the location/ availability	"Depending on location of standing desks, you run the risk of being an obstruction of view for other students"	"It would block the view of other students behind me."	"Depends on location of desk relative to screens, outlets, doors, etc."
Factors	Depends on the social norm	"Would likely only use it if others were as well"	"If it was the norm I would use it, but if not, I wouldn't."	"It would probably look dumb unless other people are also doing it. If they are, it would be fun and I would always do it if available."
	Depends on the class type/ time/ task	"Some courses require writing which needs sitting down"	"Depending on length of class/ time of day (I wouldn't use it for a 3-hour lecture or early or night classes)"	"I cannot type while sitting on a yoga ball."
	Depends on the length/ number of classes	"Would depend on how long the class is"	"It would be useful depending on how long the class is"	"Would not be good for too long of lectures"

presents a summary of select quotations that reflect the overall themes for standing, sit-stand, and dynamic sitting in the university classroom. A table containing all the quotes can be found in the on-line Appendix.

Overall, students' perceptions of alternative workstations were mixed, as some students were very supportive (i.e., "I think it's a great idea! We spend so much time sitting that it's important to stand at some points – and in class is a perfect time"), some students were undecided (i.e., "I would have to try it out to decide how often I would use one in class"), and some students were against using alternative workstation (i.e., "I'm a sitter"). The factors for facilitating alternative workstations included both health benefits (i.e., "sitting hurts my back") and improved classroom performance (i.e., "standing keeps me alert"). The barriers for alternative workstations use included injuries (i.e., "standing for extended periods of time tend to aggravate the injury") and perceived diminished classroom performance (i.e., being a distraction for themselves or others; "wouldn't want to be distracting"). Many students said using alternatives workstations

would depend on factors including: the day (i.e., "depends on how I'm feeling that day"), location/ availability (i.e., "depending on location of standing desks"), social norm (i.e., "I would feel weird unless others used it"), class type/task/time (i.e., "depending on the course"), and the length/ number of classes (i.e., "depending on the number of classes that day").

DISCUSSION

Using a mixed-method approach, one purpose of this study was to quantitatively determine the perceptions of university students and faculty in using alternative workstations (standing, sit-stand, and dynamic sitting) in the classroom. The current findings are in line with results reported by Benzo et al. [14]. Specifically, we found that a large portion of students believed standing (51.98%) and sit-stand (61.99%) options should be available in the university classroom (Table 3, Q2). However, many students still remained undecided (standing 25.50% and sit-stand 22.73%) or against implementation (standing 22.52% and sit-stand 15.28%). This is not surprising as on only a small portion (i.e., 12-15%)

of students had tried alternative workstations (Table 3, Q1) given the ubiquitous nature of sitting during classroom lectures. These neutral and negative perceptions will likely change when more students experience using alternative workstation. Further, students were less in favor of implementing dynamic sitting (34.75%) options in the university classroom. Similar to faculty results from Benzo et al. (2016); students believe standing (43.37% and 59.71%) and sit-stand (40.31% and 54.26%) options are best for small classes and in the back row, respectively (Table 3, Q3 and Q4). Students were more variable on the best location for dynamic sitting options (Table 3, Q3 and Q4). In order to mitigate visibility concerns, standing and sit-stand desks should be placed in the back row of university classrooms. As dynamic sitting chairs do not pose a visibility concern, they could be placed in any row. If alternative workstations were available in the university classroom, 74.56%, 81.51%, and 70.01% of students stated they would use standing, sit-stand, and dynamic sitting postures for at least 1 class, respectively (Table 3, Q5).

Contrary to results from Benzo et al. (2016); faculty were much less supportive of implementing standing (21.93%), sit-stand (25.00%), and dynamic sitting (19.46%) options in the university classroom than students (Table 4, Q6). Since alternative workstations in the classroom are not directly benefiting faculty members they may be less supportive. Perhaps educating faculty on the benefits of alternative workstations will increase their support. Further, in contrast to results from Benzo et al. (2016), faculty members were more conflicted on the best class size and location of alternative workstations (Table 4, Q7). However, like students tended to prefer the back and side rows of small and medium classrooms.

Another purpose of the present study was to qualitatively examine the barriers, facilitators, and other issues with using alternative workstations in the university classroom (Figure 1, Supplementary Material). The qualitative information provided in this study allowed for a more in depth look at students' perceptions of alternative workstations in the university classroom. Students' comments were more supportive of the sit-stand desk than the standing only and dynamic sitting options (Figure 1, Overall Perception). Many students stated they enjoyed the flexibility of this workstation. Students were most worried about the dynamic sitting option being distracting and hindering their classroom performance (Figure 1, Personal Factors). Some social and environmental factors students mentioned (Figure 1, social/environmental factors) were that the use of the alternative workstations depended on the social norm (for instance if other students were also using the workstation they would as well), the location (for example not blocking other students, allowing good visibility, and good proximity to outlets), the type of task (some tasks would be more difficult standing), the length of class (some students would like the option to stand in longer classes but would not like to be forced to stand the whole class), number of classes (for example students would consider standing for some classes but not all classes), and more. The full list of quotations can be found in the supplementary material.

The qualitative information also informed some of the quantitative findings. For example, one of the reasons dynamic sitting options were less preferred could be that many students see them as very distracting and negatively impacting their classroom performance (Table 3, Q2 and Q5; Figure 1, Classroom Performance, Barrier). Furthermore, students were more concerned with the location and visibility of standing and sit-stand options than dynamic sitting options, which could explain why they were more undecided on the

best location of dynamic sitting options (Table 3, Q3 and 4; Figure 1, Location). Additionally, students were the most supportive and least opposed to sit-stand workstations, which could explain why students are most in favor of sit-stand implementation and use (Table 3, Q2 and 5; Figure 1, Overall Perception). These factors must be considered when designing interventions to reduce sedentary behavior or when implementing alternative workstations.

We acknowledge that there may be many feasibility (i.e., university policy and procedures), financial (i.e., cost of alternative workstations and classroom modifications), and structural (i.e., visibility and access issues) challenges for implementing alternative workstations in the university classrooms. However, as students financially support the university, student health should be a priority for universities. Universities should promote a health-supportive environment that allows for healthy behaviour change of their students by providing standing, sit-stand, and dynamic sitting options in the university classroom. This would enable students to increase control over their health and sedentary behaviour in the university classroom, which would in turn help improve their health.

There are several strengths with the present study. First, the large student sample size allowed for less chance of type 2 statistical error. Second, the collection of both quantitative and qualitative data allowed for a comprehensive and complementary assessment of perceptions of alternative workstations in the university classroom. Third, the participants were both university students and faculty from a wide range of disciplines and ages. Fourth, the survey collected data on a variety of possible alternative workstations for the university classroom (standing, sit-stand, and dynamic sitting). Finally, the study targeted an important population—university students who spend a substantial amount of time being sedentary and may as a result be at risk of health problems.

Despite these strengths, there are several limitations that must be acknowledged. First, participants volunteered to complete the survey, not all participants completed all the survey questions, there was no analyze on common omissions, and a smaller number of faculty members completed the survey than students. Although we collected information on university students and faculty, we did not collect information on a third group (i.e. administrators) that would have supported the triangulation of evidence. Hence, we can only speculate that our findings are representative. Second, the effect of demographic factors on perceptions of alternative workstations was not addressed and should be considered in future research. Lastly, this was the first study to combine quantitative and qualitative perceptions of university students and faculty towards standing, sit-stand, and dynamic sitting in the university classroom and must be replicated before findings can be universally accepted.

CONCLUSION

Students are forced to sit for all their lectures, which translates to large amounts of forced sedentary behavior and this in turn may have negative health consequences. A substantial portion of students believe, standing, sit-stand, and to a lesser extent dynamic sitting options should be available for use in university classroom lectures. Most students also state that they will use these options (at various levels of engagement) if they are available in the university classroom. Students and faculty prefer alternative desks to be located in the back of small classes. Hence, at this time we recommend providing standing, sit-stand, and to a lesser extent

dynamic sitting options in university classrooms to allow students to receive health benefits as they learn.

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Appendix

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Appendix A. Supplementary Material. Quotations Supporting Themes Identified for Using Adjustable Standing Only Desks in The University Classroom.

Overall Perception

Supportive

"I would love to spend more time standing, but I might not be able to stand during all classes"

"I don't think I could stand for three hours straight. It would be nice to have the option to stand for a little while though."

"I prefer to stand rather than sit but probably wouldn't use it 100% of the time depending how many classes I have that day."

"Maybe once every so often to stretch my legs"

"Most times I don't like sitting, but there are days where I need to sit due to fatigue"

"I would do it to change up sitting all the time"

"I have hip/achilles/foot issues that sometimes prevent me from standing for too long, but sometimes also prevent me from sitting comfortably for too long. I like to have the option to do both."

"I sometimes have trouble standing for long periods of time due to occasional back & knee pain so standing for a 2hr class doesn't seem reasonable but I would utilize it on some occasion because I am always sitting for long periods of time & I know it's not healthy"

"I know sitting is terrible but you aren't given a choice when you sit in lectures"

"I'd prefer the one where you can sit back down"

"I think it's a great idea! We spend so much time sitting to study that it's important to stand at some points - and in class is a perfect time."

"It'd be a nice switch up from the traditional "sitting only desk""

"Because I sit at home while doing school work everyday, and it would be a nice change to have the increased exercise"

"It's a break from sitting"

"3 hour long lectures, I would switch from sitting to standing half way through to stay concentrated on work in a new setting"

"I always wanted a standing desk but often they are expensive"

"Because I dislike sitting for long periods of time."

- "I like to switch up sitting and standing"
- "It would be nice to not sit all the time, but I also think it would be socially awkward to not be sitting when everyone else is"
- "Because I am quite the kinesthetic learner I'd need some form of activity to just keep me focused"
- "I get very fidgety during long classes, so it would be a nice change from sitting the whole lecture to working at a standing desk."
- "I would use it for most classes, but if I have a lot of classes one day then I would probably sit for one class to rest my legs."
- "I only have class once or twice a week right now and would use it to keep myself from falling asleep."
- "I could see myself standing for portions of every class, as my classes are often 3 hours long. I would likely stand for an hour every class."
- "I feel tired while sitting for 3 hours class so standing desk is good thing"
- "Because I do not like to sit during class time, especially for the 1 hour lecture"
- "For me, I find standing to be distracting from the lesson when compared to sitting. I do, however, love using a standing desk for just doing work, so I could imagine that for some students they would enjoy standing during lectures."
- "I would try to use it as much as possible but there is so much walking on campus, I would probably want to sit occasionally"
- "I feel like there would be a high demand and a low number of standing desks"
- "Get tired standing all the time, but nice to stretch legs"
- "Its a great way to improve posture, stay focused and prevent sedentary behavior."
- "Just to mix things up, give my butt a rest from all the sitting I do all day"
- "To sit for back to back lectures is painful, it'd be nice to have the option to stand or sit, provided that I wouldn't be bothering other students."
- "I want a standing desk for myself at home so I would love to have it in classes."
- "I would use it to take breaks from sitting"
- "Whether or not I would use it depends on how many desks are available if there is only 1, I would likely not use it, but if there are many, I may use it if it is available."

- "It would be a nice change from sitting down all the time"
- "I dislike sitting for long periods of time, however in certain classes, and for testing situations, sitting would be preferred"
- "I would most likely get tired from standing so frequently so I would take some days to sit instead of stand"
- "I may want to sit down at certain times"
- "Sometimes you've been sitting all day and it's nice to stand up. You also have better focus while standing. Long classes (3h lectures) can be exhausting to sit in and standing can keep me engaged."
- "Standing the entire time is equally as bad as sitting all the time"
- "Standing>Sitting"
- "I Chose irregularly because I get tried walking to and from home/school so I'd like to be able to sit sometimes."
- "Hard to break habit of sitting but might gradually start standing more."
- "Especially at the start, wouldn't be able to stand during back-to-back classes because I'm just not accustomed to it. Would progress from every other class to perhaps every class."
- "Its sounds fun"
- "Certain classes are so long I have trouble sitting for the whole period of time"
- "When I had an adjustable desk in the past, I found myself switching back and forth between sitting and standing as it was comfortable, and therefore would likely use it daily, however not for the entire duration of every lecture"
- "I see the merit as to why some people would want to use it. I just feel I workout enough already I wouldn't need to stand to feel as though I'm getting an extra "workout" in. But I feel the value for others who may not have the time or luxury of going to the gym frequently."
- "Keeps me on my toes"
- "Sitting in long lectures can make me tired causing me to lose focus"
- "I think it is good to stand sometimes rather than seating all the time. This might save me from some back pain related issues."
- "I would like to alternate between sitting and standing"
- "I enjoy spending less time sedentary"

"I believe I need to sit less but I get sore feet standing for too long."

Undecided

"I would use it just to try it out, but during a lecture I think I would prefer to sit"

"To try it out"

"I would have to try it out to decide how often I would use one in class"

"I've never tried it - so I would definitely have to try it at least once and see how I feel about it"

"I would want to try the standing desk to see if I enjoyed using it or if it helped me focus."

"I would try it and see"

"I have never used one before so I do not know how they feel. I think I like the idea, but because I have never used one I am not sure how comfortable it would be. Nor if I would stay as focused. Time of class and length would be a factor in my decision."

"I would at least try it out to see if I preferred it"

"I'd be curious to try it, and sometimes I get tired of sitting"

"I would want to try it out at least once and see what it's like but sitting in class is usually more comfortable."

"Curiosity but school is already exhausting enough"

"I would try it at least once to see how I felt about it."

"Try it but would find it hard to focus on class"

"I'll try it out but most likely won't like it... I would never stop in the middle of the class just to adjust my desk (disrupting). If I am standing at the desk, looks like I'd be standing for the entire class, but why would I want to stand for class???? I don't."

"To try it out at least, but I don't think I would focus enough"

"I would try it but I don't think I would enjoy it"

"Curious to try it"

"Try it out to see if I like it"

"Ill try anything once!"

"I would test it out to see how it works and how it changes regular study habits. I

have never used one so I don't know how I would like it"

"I would try it once"

"Getting used to standing would take time. Willing to try!"

"All of my classes are 3 hours long and standing for one class would be too much so I would maybe try it once a week, every other week."

"Trying a new way to have lesson"

"Try it out"

"I might have to get used to it, its hard to know for sure"

"I would like to try it out but I assume it will be tiring to stand in one spot for an hour"

"Not sure how I feel about them or if I'd like it"

"To see if I like it better than sitting or not"

"I would want to try it first."

"I would have to try it to know if it would affect my class performance"

"It depends on the class and the time that a person is required to stand. Some lectures are 3 hours long and it's unreasonable to expect someone to stay up for such an extended period of time. If there were adjustable standing desks, they should be sparing and be for people who occasionally want to take a break from sitting. I would try it but never use it all the time."

"I have never used one and would try it out but would only continue to do so if they were being used by others. It is more functional for a study space than a lecture"

"I would at least want to try it."

"Never tried it but I'd be willing to give it a try"

"I might try it out, but have no clue whether I'd make a regular habit of it or not"

"I may try it depending on the class but would not commit one way or the other"

"I've never tried it. If it works, I'd use it more often"

"Would have to try first to see benefits"

"Because I'm not sure how I feel about them"

Opposed

- "I would use it just to try it out, but during a lecture I think I would prefer to sit"
- "Seems uncomfortable and tiring to stand for 1-3 hour lecture"
- "Too used to sitting down at a proper desk. Frequent back pains would prevent me from standing up for long periods of time."
- "It seems tiring"
- "I would want to try it out at least once and see what it's like but sitting in class is usually more comfortable."
- "I feel that personally I am not overly sedentary and so a standing desk is less necessary, and it would be more comfortable to sit."
- "I'm in a wheelchair"
- "In class I need to focus and sit to write notes properly; also it's not as comfortable"
- "Not practical"
- "Tiring"
- "It's tiring to stand for long periods of time."
- "I would never want to stand while in class."
- "Standing still for long periods of time would make me restless. I would prefer to be sitting or moving"
- "I prefer to sit down when working, and personally feel that standing would cause me to be distracted."
- "I prefer sitting down because I have knee issues"
- "I would get uncomfortable"
- "Why stand when I can sit?"
- "I do not like them"
- "There is too much walking involved for me to get to classes so I would prefer to sit while in class."
- "I prefer to sit"
- "I think I might get tired"
- "I would prefer to sit rather than to stand in general."

- "I hate standing still. I would be open to bouncy balls as seats or something to keep moving, but I would absolutely hate standing"
- "I'll try it out but most likely won't like it... I would never stop in the middle of the class just to adjust my desk (disrupting). If I am standing at the desk, looks like I'd be standing for the entire class, but why would I want to stand for class???? I don't."
- "Prefer to sit down. But may use it to keep self from falling asleep."
- "I'd never want to be standing so it would be wasted on me"
- "It does not interest me as I prefer to sit down"
- "I don't think standing still in one spot is advantageous for long periods of time"
- "Don't like standing"
- "Prefer to sit"
- "My classes are long and spread throughout the day with so much work and I'm always tired."
- "I am tired all of the time so I do not like standing for extended time periods"
- "Too lazy to stand"
- "I'm lazy and would prefer to sit"
- "I'm a sitter"
- "I feel I would get tired standing up"
- "I prefer sitting as it makes my back feel better"
- "Seems unnecessary"
- "Sometimes you just need to have a good sit"
- "I prefer sitting while taking notes"
- "Tiring"
- "State of body whether sitting or standing should not impact your performance, it is how passionate you are about your work. So, standing desks are useless."
- "I think ill get tired"
- "I am generally very tired and trying very hard to concentrate on just one thing while in class"

- "It's more distracting to have to stand up while listening to a professor lecture and ultimately sitting is more comfortable"
- "I believe I may be uncomfortable."
- "I prefer to sit while I am working. I find that sitting is more relaxing than standing and I am better able to concentrate on the course material when I am in a relaxed state of mind."
- "I usually had a max of 3 hours of class (including break) in a day so I just don't think I would need it"
- "Sitting is more comfortable"
- "During class I prefer to sit down since I feel more comfortable and can focus better"
- "Can't stand long"
- "I have to stand at work, I'd rather sit to listen to a lecture"
- "I work in a lab where I am standing all the time already"
- "Standing and listening to a professor talk for an hour can become very tiring. Especially since all of my classes are 2 to 3 hours long."
- "I'm a cashier, so I already spend enough time standing until my feet hurt."
- "I see the merit as to why some people would want to use it. I just feel I workout enough already I wouldn't need to stand to feel as though I'm getting an extra "workout" in. But I feel the value for others who may not have the time or luxury of going to the gym frequently."
- "Too hard to stand"

Personal Factors *Health/Injury*

Facilitator

"Health benefits, sitting hurts my back"

- "I recognize that I have an unhealthy diet and work regimen and this is a slight way to counter it using minimal effort"
- "It is healthier to use the standing desk, so I would want to use it as much as possible, but there would probably be some days where I'm too tired to use it and just need to sit."
- "It's better for your back."
- "My back hurts when I sit and I hate how low my blood flow gets, making it difficult to get up and run to the bus after a class"

- "I'm lazy but understand the importance of trying to live a less sedentary lifestyle"
- "It's a great way to improve posture, stay focused and prevent sedentary behavior."
- "Sitting for too long is not good for your health"
- "Due to a bulging disk, it is better for my back to avoid a seated position for extended periods."
- "I know standing is better for you, and I always use a notebook in class. The desk facilitates both my good health and note taking."
- "Improve health"
- "I love standing only desks as they help me to stay alert and help relieve pressure from sitting for long periods."
- "Because my sitting for a long time makes my butt cramp up"
- "I think it is good to stand sometimes rather than seating all the time. This might save me from some back pain related issues."
- "I have had posture and back problems that required consulting a physiotherapist"

Barrier

- "Being on my feet too long causes back problems"
- "Too used to sitting down at a proper desk. Frequent back pains would prevent me from standing up for long periods of time."
- "I am a dancer and some days I have bad knee pain so wouldn't want to stand all the time for long classes"
- "I wouldn't be able to stand for longer than an our at a time, wouldn't want to develop varicose veins"
- "I have hip/achilles/foot issues that sometimes prevent me from standing for too long, but sometimes also prevent me from sitting comfortably for too long. I like to have the option to do both."
- "I sometimes have trouble standing for long periods of time due to occasional back & knee pain so standing for a 2hr class doesn't seem reasonable but I would utilize it on some occasion because I am always sitting for long periods of time & I know it's not healthy"
- "I have back problems, so standing for long periods of time can be painful"
- "I feel like always standing for every class would become tiring and lead to sore legs"

- "I suffer from scoliosis."
- "I prefer sitting down because I have knee issues"
- "Walking is one thing, but standing still for a long period of time causes me to have lower back pain"
- "I have really bad joint pain in my knees"
- "I feel that I am so used to sitting down for class that standing up and listening would make me anxious."
- "Feet get tired and uncomfortable to write"
- "It's bad on your feet"
- "Standing for long periods of times hurt my knees"
- "While I have knee and hip issues from sports injuries, I find that regular use of a standing desk does not help these issues"
- "I am a nursing student, for nursing I spend 13 hours on my feet at a time. Because of that, on the days when I am not in nursing I like having the option to sit down"
- "My back would hurt. I need to sit to feel comfortable in order to take notes during class"
- "It would be really hard to stand for a 3-hour lecture, especially when you have a foot condition (i.e. flat feet)"
- "I tend to get a sore back to previous injury, Standing for extended periods of time tend to aggravate the injury"
- "Some classes are 3 hours long, standing for 3 hours long can trigger back pains."
- "I believe I need to sit less but I get sore feet standing for too long."

Classroom Performance

Facilitator

- "Some classes are easier to fall asleep in, standing would help stay awake. Standing while speaking in class (for courses with discussions) also makes speaking more enthusiastic"
- "When feeling tired (standing keeps me alert)"
- "3 hour long lectures, I would switch from sitting to standing half way through to stay concentrated on work in a new setting"
- "Prefer to sit down. But may use it to keep self from falling asleep."

- "Because I am quite the kinesthetic learner I'd need some form of activity to just keep me focused"
- "Depending on the course, time of day, level of exhaustion. I would like to stand more to keep me more awake and alert when the class permits it."
- "Depends on the class and for some classes to change it up for variety to keep me engaged"
- "Because I heard you remember more when standing."
- "I only have class once or twice a week right now and would use it to keep myself from falling asleep."
- "It's a great way to improve posture, stay focused and prevent sedentary behavior."
- "Would use it for the classes that tend to put me to sleep to help me stay awake"
- "Sometimes you've been sitting all day and it's nice to stand up. You also have better focus while standing. Long classes (3h lectures) can be exhausting to sit in and standing can keep me engaged."
- "I know standing is better for you, and I always use a notebook in class. The desk facilitates both my good health and note taking."
- "I get fidgety during class and standing would help with that"
- "It would be good to use on days when you are really tired and unfocused! It would definitely help to stay awake and stay focused"
- "I love standing only desks as they help me to stay alert and help relieve pressure from sitting for long periods."
- "It keeps me more alert throughout the class, less tendency to drift off, and reduces time sitting (as it presumably would not be available in every class)."
- "Sitting in long lectures can make me tired causing me to lose focus"

Barrier

- "I could see it being sometimes hard to take notes at"
- "Too tired and exhausted from standing in the mornings, also I'm really shifty so it would cause me to lose focus on class"
- "In class I need to focus and sit to write notes properly; also it's not as comfortable"
- "In my three hour lectures, I would become more focused on how much longer I have to stand than the actual course material. My one hour lectures go by so fast, I wouldn't have time to focus on anything else"

- "I would be more prone to fidgeting/shifting (which I do while standing) and I would likely want to sit down often, and shift a lot from standing to sitting. This might be because I'm out of shape though."
- "I prefer to sit down when working, and personally feel that standing would cause me to be distracted."
- "Try it but would find it hard to focus on class"
- "I would worry it would be distracting to other students"
- "To try it out at least, but I don't think I would focus enough"
- "For me, I find standing to be distracting from the lesson when compared to sitting. I do, however, love using a standing desk for just doing work, so I could imagine that for some students they would enjoy standing during lectures."
- "Tiring, I feel I would be more fidgety and unfocused if I were standing and trying to listen to a lecture"
- "Because it's harder to type."
- "I need to sit down in order to focus and think. I'd use it if I arrived late and there were no spots"
- "It would be distracting to adjust the desk while in class"
- "It would be harder to concentrate. Classes are too long to stand only."
- "It's more distracting to have to stand up while listening to a professor lecture and ultimately sitting is more comfortable"
- "I prefer to sit while I am working. I find that sitting is more relaxing than standing and I am better able to concentrate on the course material when I am in a relaxed state of mind"
- "I find it hard to concentrate when the body is not fully relaxed"
- "I'd find it more difficult to concentrate."
- "I think I would get tired in the longer lectures, loose focus, and not take as good notes"
- "I would move around and fidget too much at a stand up desk"
- "During class I prefer to sit down since I feel more comfortable and can focus better"
- "Easier to focus and write while sitting"
- "My back would hurt. I need to sit to feel comfortable in order to take notes during

class."

Social/Environmental Factors

Depends on the day

"Too tired and exhausted from standing in the mornings, also I'm really shifty so it would cause me to lose focus on class"

"Most times I don't like sitting, but there are days where I need to sit due to fatigue"

"It would be depended on the shoes I was wearing and how many people were sitting behind me."

"I'd use it if I had a high energy level or my back was hurting"

"It's more of a feeling to sit or not Andy how long have sat earlier in the day."

"Depends how I tired I was"

"Usually I prefer to stand while learning, but some days if I had to walk to class/run to catch the bus I'd just want to crash and sit down during lecture"

"Depends on how tired I am or if my legs/feet hurt, I would want the option to be able to sit or stand."

"Depends on what day is busier and if it's after practice then I wouldn't because I'm usually tired for class after practice"

"Some days I may be tired and would rather be able to sit down for a 2 hour lecture"

"It is healthier to use the standing desk, so I would want to use it as much as possible, but there would probably be some days where I'm too tired to use it and just need to sit."

"I would choose to use it if I were unable to fit in a workout on that day"

"Depending on the course, time of day, level of exhaustion. I would like to stand more to keep me more awake and alert when the class permits it."

"Some days I'm more restless then others so I'd want to stand. As well I wouldn't want to use it for my math class."

"Depends on how I feel that day"

"Depending on how tired I am"

"I would try to use it as much as possible but there is so much walking on campus, I would probably want to sit occasionally"

"Could get tiring over the course of the day"

- "Depends on feel"
- "Depending on whether the desks are available and how I'm feeling that day (ex. tired, energetic, etc.)"
- "I get tired of standing sometimes"
- "My usage would depend on my health condition of the day"
- "Sometimes I feel like I need to sit, so I wouldn't always want to be standing"
- "If I've had to speed walk 20 minutes across campus to class I probably wouldn't use it that day; if I've only walked a little ways to class and otherwise had a lazy day, I would probably use it."
- "All classes would get tiring, but irregularly because some days I feel more tired than others."
- "Could depend on how I was feeling that day"
- "Sometimes you have long days, and ideally after a long day you might not want to stand in class. But I would try my best to use it as much as possible."
- "All classes but use would vary by class/day"
- "Some days you may be more tired than others, it is also a lengthy period of time to be standing (especially if the class is longer than an hour)"
- "I could possibly get tired"
- "I would most likely get tired from standing so frequently so I would take some days to sit instead of stand."
- "Depends on how much energy I have and how much writing I would have to do"
- "I chose irregularly because I get tried walking to and from home/school so I'd like to be able to sit sometimes."
- "It would be good to use on days when you are really tired and unfocused! It would definitely help to stay awake and stay focused"
- "It depends on my energy level going into the class. If it's a morning class and I'm feeling sleepy, I would be less inclined to use the standing only desk."
- "I would most likely use it less in the morning when I'm tired. However more in the afternoon after sitting for 1 or 2 classes"
- "It depends how tired I am that day"
- "When I was in undergrad I was really tired during class so normally would nap lol"

Depends on the location/availability

- "It would be depended on the shoes I was wearing and how many people were sitting behind me."
- "Depends on location of desk relative to screens, outlets, doors, etc. takes time to adjust to correct height"
- "It would depend on how common it was for people to use them and if I felt like I was blocking anybody"
- "Wouldn't want to draw attention to myself, I also have a hard time seeing and I think these desks would have to be at the back"
- "Does not seem practical to be standing up while typing out lecture notes as if everyone in the class were to do so, someone with my height may not be able to see the board if there is someone taller in front of me."
- "Have to pay attention to prof and wouldn't be able to see"
- "Some classes are too long, or if its a big class I might not be able to see over the person in front because I am short"
- "I am short and if there are people in front of me who are tall, I won't be able to see and it would be bothersome. Also, standing up for 1-3 hours is going to hurt my legs."
- "If I'm too short to see over the other people in front of me, I wouldn't be able to use the desk while viewing the lecturer."
- "I feel like there would be a high demand and a low number of standing desks"
- "Depending on whether the desks are available and how I'm feeling that day (ex. tired, energetic, etc.)"
- "Whether or not I would use it depends on how many desks are available if there is only 1, I would likely not use it, but if there are many, I may use it if it is available."
- "Depending on location of standing desks, you run the risk of being an obstruction of view for other students"

Depends on the social norm

- "It would depend on how common it was for people to use them and if I felt like I was blocking anybody"
- "Wouldn't want to draw attention to myself, I also have a hard time seeing and I think these desks would have to be at the back"
- "Would feel weird unless others used it"
- "Would likely only use it if others were as well"

- "It would be nice to not sit all the time, but I also think it would be socially awkward to not be sitting when everyone else is"
- "It's a new concept, there would be some social pressure to not use it, so I'd probably only use it for one class"
- "Because I want to sit in a chair and write notes like everyone else lol"
- "I believe that I wouldn't be able to get used to standing at a desk, after going to school and taking classes sitting down for so long. Furthermore, for certain lectures that are longer (2+ hours), my legs would tire."
- "Unless it was standardized (i.e. being the only desk in the classroom) I would be much less likely to use it as I would feel uncomfortable"
- "It would be somewhat awkward because most students have other students that they tend to sit with. Using a standing desk during class would be an act of intentionally removing oneself from one's group"
- "It would be embarrassing when no one else used one"
- "Whether or not I would use it depends on how many desks are available if there is only 1, I would likely not use it, but if there are many, I may use it if it is available."
- "Might be awkward if not everyone is standing"
- "Hard to break habit of sitting but might gradually start standing more."
- "I have never used one and would try it out but would only continue to do so if they were being used by others. It is more functional for a study space than a lecture"
- "It's weird unless everyone else is also using it."
- "I feel like when adjustable standing desks start being a thing, it won't be very common and I don't want to be judged for using one."

Depends on the class type/ time/ task

- "I'd use it only if necessary for writing."
- "I could see it being sometimes hard to take notes at"
- "There are some classes where I would prefer to sit (i.e., discussion-based classes, or classes that take place early in the morning when I am tired)."
- "Does not seem practical to be standing up while typing out lecture notes as if everyone in the class were to do so, someone with my height may not be able to see the board if there is someone taller in front of me."
- "Writing (paper, pencil) tends to be easier sitting, for some classes which require lots

- of note taking, I may sit."
- "Don't want to stand for a 3h lecture or one that I need to pay close attention to"
- "Depending on the course, time of day, level of exhaustion. I would like to stand more to keep me more awake and alert when the class permits it."
- "Some courses require writing which needs sitting down"
- "Depends on the class and for some classes to change it up for variety to keep me engaged
- "Some days I'm more restless then others so I'd want to stand. As well I wouldn't want to use it for my math class."
- "Depends on the time of day the class is"
- "Some classes require more typing which may be harder in a standing desk"
- "For me, I find standing to be distracting from the lesson when compared to sitting. I do, however, love using a standing desk for just doing work, so I could imagine that for some students they would enjoy standing during lectures."
- "Depends on how face paced the class is, what time the class is, the amount of people in the class"
- "Depends on how much writing or typing I have to do"
- "Feet get tired and uncomfortable to write"
- "Some classes require faster writing and more intense focus, that standing desks would not be appropriate to write notes on"
- "Would use it for the classes that tend to put me to sleep to help me stay awake"
- "I dislike sitting for long periods of time, however in certain classes, and for testing situations, sitting would be preferred"
- "Depends on how much energy I have and how much writing I would have to do"
- "Depending on the time of day I have the class and what day, as I am sometimes coming from the gym and would like to sit."
- "I have one class, the rest is research, I would use a standing desk to do research work on computer"
- "The professor gives individuals a chance to stand every hour no need to stand the whole time."
- "I may try it depending on the class but would not commit one way or the other"

- "It depends on my energy level going into the class. If it's a morning class and I'm feeling sleepy, I would be less inclined to use the standing only desk."
- "I would most likely use it less in the morning when I'm tired. However more in the afternoon after sitting for 1 or 2 classes"
- "I prefer to focus on writing and listening"

Depends on the length/ number of classes

- "I would love to spend more time standing, but I might not be able to stand during all classes"
- "Seems uncomfortable and tiring to stand for 1-3 hour lecture"
- "I don't think I could stand for three hours straight. It would be nice to have the option to stand for a little while though."
- "Too used to sitting down at a proper desk. Frequent back pains would prevent me from standing up for long periods of time."
- "Would depend on how long the class is"
- "I prefer to stand rather than sit but probably wouldn't use it 100% of the time depending how many classes I have that day."
- "I am a dancer and some days I have bad knee pain so wouldn't want to stand all the time for long classes"
- "I do not think that I would use it for long classes."
- "I would not want to stand all day"
- "I wouldn't be able to stand for longer than an our at a time, wouldn't want to develop varicose veins"
- "My feet might get sore in long lectures."
- "I have never used one before so I do not know how they feel. I think I like the idea, but because I have never used one I am not sure how comfortable it would be. Nor if I would stay as focused. Time of class and length would be a factor in my decision."
- "Duration of lecture"
- "All my classes are 3 hours in length and I would not want to stand for the entire time"
- "I sometimes have trouble standing for long periods of time due to occasional back & knee pain so standing for a 2hr class doesn't seem reasonable but I would utilize it on some occasion because I am always sitting for long periods of time & I know it's not

healthy"

- "I would use it sometimes, but for classes that are over 2 hours there is no way I am going to stand for 2 hours or more"
- "I would use it for my shorter lectures (one hour), but not for longer ones."
- "I feel like always standing for every class would become tiring and lead to sore legs"
- "Shorter classes I would use it but not for a 3 hour lecture."
- "In my three hour lectures, I would become more focused on how much longer I have to stand than the actual course material. My one hour lectures go by so fast, I wouldn't have time to focus on anything else"
- "If I have back to back classes I may want to sit during some classes but I would try to stand most of the time"
- "If my lectures were 50 minutes long only"
- "Having multiple back to back classes, it could get tiring from standing all day."
- "Some of my classes are long and it would probably not be comfortable to stand for 3 hours straight."
- "3 hour long lectures, I would switch from sitting to standing half way through to stay concentrated on work in a new setting"
- "I wouldn't want to stand for that long"
- "Don't want to stand for a 3h lecture or one that I need to pay close attention to"
- "The class is very long so I would need to sit"
- "I would use it for classes <2 hours, not for 3 hour lectures"
- "Use it for the shorter lectures"
- "I don't think standing still in one spot is advantageous for long periods of time"
- "I would use it for most classes, but if I have a lot of classes one day then I would probably sit for one class to rest my legs."
- "I could see myself standing for portions of every class, as my classes are often 3 hours long. I would likely stand for an hour every class."
- "Some classes are just to long to stand for the whole entire period"
- "Some classes are too long, or if its a big class I might not be able to see over the person in front because I am short"

- "For the classes for which I have long lectures (1 and a half hours+) I believe that my legs would become stiff and painful from standing still for so long."
- "Most of my classes are the 3 full hours and standing that long while only listening and typing is much harder than if I could sit for a portion and do the same"
- "It's not the most comfortable after a while."
- "I am short and if there are people in front of me who are tall, I won't be able to see and it would be bothersome. Also, standing up for 1-3 hours is going to hurt my legs."
- "Depending on the length of the class, I wouldn't want to stand for long periods"
- "I would probably use a standing desk for classes that are 1-2 hours long but not 3."
- "My classes are all 50 minutes, which is a reasonable time to stand, but after several in a row, and especially after a workout, it is difficult to remain standing"
- "3 hour classes would be a long time to stand in one place"
- "It depends on how long the class is. If it's 3 hours I'm not going to use one, but if the class is 1 hr-1 1/2 then I may consider it"
- "Standing for long periods of times hurt my knees"
- "I believe that I wouldn't be able to get used to standing at a desk, after going to school and taking classes sitting down for so long. Furthermore, for certain lectures that are longer (2+ hours), my legs would tire."
- "I would wish to change position to a standing desk part way through a given lecture, but likely not for all lectures."
- "Sometimes I feel like I need to sit, so I wouldn't always want to be standing"
- "Some lectures are too long to stand for 3 hours standing in the same spot would cause my feet and shoulders to get sore. I would use it for the hour long lectures"
- "To stand for entire 3 hour lecture that is not engaging would be draining"
- "All of my classes are 3 hours long and standing for one class would be too much so I would maybe try it once a week, every other week."
- "Depends on the length of the class"
- "It would be harder to concentrate. Classes are too long to stand only."
- "Some days you may be more tired than others, it is also a lengthy period of time to be standing (especially if the class is longer than an hour)"

"Most of my classes are two hours, so I wouldn't want to be standing the whole time. Maybe only part of the class."

"It would be tiring to stand all the time"

"I feel like I would get tired standing for the whole lecture period"

"I think I would get tired in the longer lectures, loose focus, and not take as good notes"

"Depends if the class was short enough for you to stand the whole time. If the class was too long, I'd want to sit down at some point."

"It depends on the class and the time that a person is required to stand. Some lectures are 3 hours long and it's unreasonable to expect someone to stay up for such an extended period of time. If there were adjustable standing desks, they should be sparing and be for people who occasionally want to take a break from sitting. I would try it but never use it all the time."

"Depending on the number of classes that day, I would take the opportunity in one class to sit"

"I would only use it for my 1 hour classes but sit for my 3 hour classes"

"Depends on class length"

"It would be really hard to stand for a 3-hour lecture, especially when you have a foot condition (i.e. flat feet)"

"Certain classes are so long I have trouble sitting for the whole period of time"

"I might get sick of standing during long lectures"

"Most lectures are too long for me to remain standing"

"When I had an adjustable desk in the past, I found myself switching back and forth between sitting and standing as it was comfortable, and therefore would likely use it daily, however not for the entire duration of every lecture"

"I tend to get a sore back to previous injury, Standing for extended periods of time tend to aggravate the injury"

"Some lectures are 3 consecutive hours and I will need to sit down to rest"

"Some classes are 3 hours long, standing for 3 hours long can trigger back pains."

"I would eventually like to take a seat"

5 Note. Some quotes appear under multiple categories.

- 6 Appendix B. Supplementary Material. Quotations Supporting Themes Identified for Using
- 7 Adjustable Sit-Stand Desks in The University Classroom.

Overall Perception

Supportive

- "I love the fact that I can sit when I'm tired standing"
- "Some lectures are so long/boring need to be available to pay attention"
- "I love how it gives both sitting and standing options. Would try it once to see if I like it"
- "I like the option of being able to stand during class."
- "I would be more likely to use this because you could take breaks as you needed & sit for things you prefer to do sitting"
- "This type of desk would be perfect since it allows for both options."
- "I can choose to stand if I want, but I can also sit if I'm tired; I wouldn't use it for some classes, since the sit-stand desks are at the back and I usually prefer to be up at the front for some classes to take notes"
- "I would use it more often as it is adjustable."
- "It's the equivalent of a regular desk except you have the option to stand up and when you are tired of sitting or sit back down when you are tired of standing"
- "There's a chair I can use when I get tired"
- "Because you can alternate"
- "It's good to have options, depending on how sedentary the day is"
- "The adjusting would be distracting so I would pick a seat if I wanted to sit at some point"
- "I would do it to change up sitting all the time"
- "If I can choose to sit or stand I would probably use it more because some days I may feel like I've been sitting too much but others maybe not and id rather sit."
- "You can choose to sit or stand, I'd want the option"
- "I have the option so once in a while I could stand up to stay more focused and stretch"
- "Because I could decide to sit if I was tired or sore"
- "You can choose the setting that works for you"

- "Depends on how tired I am or if my legs/feet hurt, I would want the option to be able to sit or stand."
- "For longer lectures I could go from standing to sitting"
- "I would use it more often then the stand only desk because it gives you the option of sitting down. Having back to back classes, it could get tiring/painful to be on your feet all day, at least when first starting to stand in class."
- "This allows you the choice to switch between sitting and standing which can ease restlessness, however I may feel embarrassed to make noise when switching"
- "Again, a nice switch up. Also it'd give my bum a rest for the long lectures"
- "You can choose whether to sit or stand depending on how you feel that day"
- "It would be easy to decide that day whether I wanted to sit or stand. I could make the decision based on how tired I was feeling."
- "Increased exercise, but also the ability to sit if need be."
- "I would use it regularly because it gives me the option to choose"
- "Gives the option to sit or stand"
- "Flexibility in sit/stand depending on mood etc."
- "It depends the length of the class, but it would be good to stand and sit in the middle of classes to not get too tired from sitting"
- "Easy to change"
- "I can still sit"
- "I like to switch up sitting and standing"
- "It would be nice to not sit all the time, but I also think it would be socially awkward to not be sitting when everyone else is"
- "I'd use it more often because of the versatility it offers."
- "They're adjustable and given the opportunity to use them, so long as they're comfortable to use, they offer the best option"
- "It's the perfect solution as it allows both sitting and standing to change position and keep focus"
- "Sometimes it'd be good to be able to adjust the height of the table"
- "I would use it for most classes, but if I have a lot of classes one day then I would

probably sit for one class to rest my legs."

"Again, if provided the opportunity would use it every class for portions of the class, but not the whole time."

"I like the option to stand sometimes but sit if I feel like it. The current desks hurt my back"

"Since I would be able to adjust it there would be no concern about having to stand for uncomfortable periods of time, and therefore I would use it more often."

"Because I do not like to sit during class time, especially for the 1 hour lecture"

"I think it gives students the ability to chose whether to stand or sit and what position to have the desk in"

"Can pick whether or not I'd want to stand; depends on the class"

"This is perfect and I didn't know this was a thing. I would totally use this over the standing desk because when I am tired I could transition into a sit desk"

"It would be an interesting experience and a good balance of sitting and standing."

"Great idea."

"I would only use it if willing and not tired"

"I like the freedom to choose to sit or stand"

"If it was adjustable, I would be about to sit or stand depending on what I felt like doing"

"There is options for both"

"Because I have the option to sit down if I do not enjoy it."

"Can change back in forth depending on what you're feeling"

"I would be able to stand/sit when I pleased which is good for when my legs get tired"

"Gives option of sitting and standing so helps back"

"Option of stand or sit."

"Just to mix things up, give my butt a rest from all the sitting I do all day"

"I would appreciate the option to stand occasionally"

- "If I had the option to sit when I wanted to, then I would probably use it all the time. Sometimes standing is too much, you don't feel well, it's been a long day, etc."
- "If it's adjustable, I could adjust the desk so I can use it while standing up which would be a nice change during lectures since my lectures are very long. I could also re-adjust the height of the desk back down to sitting height when I get tired of standing."
- "To adjust the height of the table depending on everyone's needs."
- "Better to have the option to adjust the desk whenever you want"
- "I feel like this would provide me the ability to change positions in order to help me concentrate"
- "This way you can sit or stand as you want"
- "More versatile in terms of choice so I would use it more often"
- "I would like the option to sit and stand when I want"
- "I may want to sit down at certain times"
- "When I am experiencing pains from exercise or am feeling ill the sitting feature would be helpful"
- "A sit-stand desk makes it easy to change between sitting and standing which is convenient for adjusting your position based on your mood/energy level"
- "I would be able to stand and sit as much as I wanted"
- "Because I can choose whether I sit or stand"
- "Personal preference"
- "If ever I do want to stand, I have the option to do so"
- "I chose regularly for most classes because I like the option it gives me- so if I'm tired at the beginning of class it can be a sit- but if my legs get restless I could make it a stand."
- "Some classes are really long, and thus would require a change (from sitting to standing, for example)."
- "I would enjoy having the option of being able to stand up and let my body stretch after sitting for long periods of time. When I sit or stand depends on the day and how I am feeling."
- "It's convenient. I would not have to move to a different desk to either sit or stand"

- "I like the customizable option if there is ever a need for a change in comfort in the middle of a lecture for example."
- "It seems cool, I would give it a shot if I got angsty and needed to move around during class."
- "I would use it regularly, but having the option to sit down may make it difficult to resist the urge to sit."
- "Seems like they would be more comfortable than just a standing desk"
- "I would prefer to reduce sedentary time as much as possible, however for days when fatigued from workouts I would prefer to sit occasionally so the adjustable sit-stand desk would be ideal"
- "I would use this more than the standing adjustable desk. It still gives you the option for sitting but you can stretch your legs and stand if you feel necessary. More flexibility with this option."
- "Need to stretch"
- "I could choose if I wanted to sit or stand depending on how tired I get throughout lectures"
- "It's nice to be given the option to either sit or stand during class"
- "Allows me to sit and stand but would not use at all times"
- "This lets me stand when I want and provides a solution to my sore feet problem."
- "3 hour long lectures, I would switch from sitting to standing half way through to stay concentrated on work in a new setting"
- "I always wanted a standing desk but often they are expensive"
- "I get very fidgety during long classes, so it would be a nice change from sitting the whole lecture to working at a standing desk."
- "It's a great way to improve posture, stay focused and prevent sedentary behavior."
- "It would be a nice change from sitting down all the time"
- "Hard to break habit of sitting but might gradually start standing more."
- "When I had an adjustable desk in the past, I found myself switching back and forth between sitting and standing as it was comfortable, and therefore would likely use it daily, however not for the entire duration of every lecture"
- "It keeps me more alert throughout the class, less tendency to drift off, and reduces time sitting (as it presumably would not be available in every class)."

Undecided

"I love how it gives both sitting and standing options. Would try it once to see if I like it"

"I would at least try it out to see if I preferred it"

"I would like to test it out but I'm not sure how much dedicated use it would take to contribute towards my goals"

"Again curiosity"

"I would like to try it, and see what it is like."

"I'd want to try it out incase I was uncomfortable sitting for 3 hours straight."

"I'd try it but would hate the distraction of people altering the desks"

"Would try it but not make it a habit, since id probably get tired and distract others"

"I would give it a try and see how I am feeling each day"

"I would like to try it but not for every class"

"Curious to try"

"Try it"

"Try anything once"

"To try it to see if it's something that I like or not."

"I would want to try it out"

"Would be interesting to try but I don't want to stand all the time"

"To try"

"Just to try it."

"I would try it"

"Try it"

"Nice choice for a try"

"Try it out"

"Just to try it once"

- "Again, I would have to try it. If I didn't enjoy standing, I assume you could still sit down for the rest of the course/lecture"
- "I have never used one and would try it out but would only continue to do so if they were being used by others. It is more functional for a study space than a lecture"
- "I would at least want to try it."
- "If it works, I'd use it more often"
- "Try it out"
- "Not sure"
- "Don't know as much"
- "I've never tried it so I would definitely have to try it at least once and see how I feel about it."
- "I might try it out, but have no clue whether I'd make a regular habit of it or not"

Opposed

- "I like sitting"
- "Seems impractical"
- "I prefer to sit during lectures"
- "I prefer to sit during lecture"
- "I'm in a wheelchair"
- "Tiring"
- "I like sitting at the front"
- "Why stand when I can sit?"
- "I would use the sit only"
- "Too much walking to my classes, so I would not use it"
- "I prefer to sit"
- "I most likely will not be standing while in class."
- "Probably not, because the desks would be adjusted at different heights where a short the person (like myself) won't be able to reach, and I hate the inconvenience of having to readjust the height before I take seat for class."

"It seems unnecessary"

"Too lazy to stand"

"I would favor sitting over standing"

"I believe that I wouldn't be able to get used to standing at a desk, after going to school and taking classes sitting down for so long. Furthermore, for certain lectures that are longer (2+ hours), my legs would tire."

"It seem unnecessary"

"See no point in using it myself over a traditional desk"

"Would probably sit"

"Useless and very stupid, it would hinder learning and distract people."

"I prefer to sit while I am working. I find that sitting is more relaxing than standing and I am better able to concentrate on the course material when I am in a relaxed state of mind."

"Can be disruptive during class, block view for other students, and I'm more comfortable sitting"

"This seems like a waste for a class"

"I'm a cashier, so I already spend enough time standing until my feet hurt."

Personal Factors *Health/Injury*

Facilitator

"Health benefits"

"I like the option to stand sometimes but sit if I feel like it. The current desks hurt my back"

"Gives option of sitting and standing so helps back"

"Being able to engage the body, even momentarily, breaks up the monotony and reduces pain."

"I could maintain a 1:1 ratio of standing/sitting at my discretion as directed by my Physiotherapist."

"This lets me stand when I want and provides a solution to my sore feet problem."

"It's a great way to improve posture, stay focused and prevent sedentary behaviour."

"It keeps me more alert throughout the class, less tendency to drift off, and reduces

time sitting (as it presumably would not be available in every class)."

Barrier

"Too used to sitting down at a proper desk. Frequent back pains would prevent me from standing up for long periods of time."

"I have a knee problem"

"I tend to get a sore back to previous injury, Standing for extended periods of time tend to aggravate the injury"

Classroom Performance

Facilitator

"Some lectures are so long/boring need to be available to pay attention"

"I have the option so once in a while I could stand up to stay more focused and stretch"

"Keeps me alert"

"It's the perfect solution as it allows both sitting and standing to change position and keep focus"

"I feel like this would provide me the ability to change positions in order to help me concentrate"

"Some classes are easier to fall asleep in, standing would help stay awake. Standing while speaking in class (for courses with discussions) also makes speaking more enthusiastic"

"It's a great way to improve posture, stay focused and prevent sedentary behaviour."

"I get fidgety during class and standing would help with that"

"It keeps me more alert throughout the class, less tendency to drift off, and reduces time sitting (as it presumably would not be available in every class)."

Barrier

"Too much distraction during lecture of people rising and dropping their desks"

"It seems like a pain to adjust, and also distracting."

"Wouldn't want to interrupt the class if I wanted to adjust the table"

"I'd try it but would hate the distraction of people altering the desks"

"Would try it but not make it a habit, since id probably get tired and distract others"

"It would be distracting to other students"

- "Too distracting for other people and myself interrupts the lecture when desk makes noise to adjust"
- "I think it would be very distracting to learning if everyone is moving the desk up and down."
- "Useless and very stupid, it would hinder learning and distract people."
- "Seems disruptive"
- "It would be distracting."
- "Distracting to students"
- "It would be distracting to the rest of the class if I was adjusting my desk during the lecture"
- "I prefer to sit while I am working. I find that sitting is more relaxing than standing and I am better able to concentrate on the course material when I am in a relaxed state of mind."
- "Hard to concentrate. Plus, if students have a choice between sit-only and stand-only desks anytime, why bother with adjustable?"
- "Moving out of seat or into seat is distracting for students behind me"
- "I'd find it more difficult to concentrate."
- "I believe the transition from sitting to standing would disturb the class"
- "I would move around and fidget too much at a stand up desk"
- "Can be disruptive during class, block view for other students, and I'm more comfortable sitting"
- "I feel like majority of students would be fighting for a sit down desk and there's a lot of short people on campus. For someone super tall to all of a sudden be standing up can really distract others."
- "Might be distracting to others to adjust the desk."
- "It may be distracting if multiple people are adjusting their desks during lectures."
- "I would be more prone to fidgeting/shifting (which I do while standing) and I would likely want to sit down 1, and shift a lot from standing to sitting. This might be because I'm out of shape though."

Social/Environmental Factors

Depends on the day

"Depends on how tired I am rather than what classes I would be taking. However, if it

is a course that requires strenuous note-taking, I'd prefer to be sitting down."

"It's good to have options, depending on how sedentary the day is"

"If I was really tired or feeling sick that day, I'd prefer to just sit the entire class"

"Depends how tired I was"

"Depends on how tired I am or if my legs/feet hurt, I would want the option to be able to sit or stand."

"Depends when, how busy my day is and if it's after practice"

"It would be easy to decide that day whether I wanted to sit or stand. I could make the decision based on how tired I was feeling."

"Tiredness"

"I would give it a try and see how I am feeling each day"

"Depends on how I feel"

"I would only use it if willing and not tired"

"Depends on feel"

"Depends on comfort level and laziness"

"This would depend on availability and whether I were tired of standing as standing has its own stresses and problems."

"Depends on health condition of the day"

"All classes would get tiring, but irregularly because some days I feel more tired than others."

"Depends how I feel that day"

"If I can't see the board or my butt gets tired from sitting"

"Depending on the length of class, and my level of tiredness/soreness that day"

"I would enjoy having the option of being able to stand up and let my body stretch after sitting for long periods of time. When I sit or stand depends on the day and how I am feeling."

"I might use it if I'm feeling fidgety during the day which makes it hard to sit for long periods of time."

"Some days I'm more restless then others so I'd want to stand. As well I wouldn't

want to use it for my math class."

"I would most likely get tired from standing so frequently so I would take some days to sit instead of stand."

"When I was in undergrad I was really tired during class so 2rmally would nap lol"

Depends on the location/ availability

"I would use it to sit if all the normal chairs were taken"

"It would block the view of other students behind me."

"I can choose to stand if I want, but I can also sit if I'm tired; I wouldn't use it for some classes, since the sit-stand desks are at the back and I usually prefer to be up at the front for some classes to take notes"

"I might use it, but it seems like an inconvenience for people behind you"

"I feel I would be self conscious that I was blocking other students especially if they didn't have the sit stand desk. I also like to sit in the front rows to properly hear the prof so I would be extra conscious if I felt I was blocking everyone in the back."

"Depends on location of desk relative to screens, outlets, doors, etc. takes time to adjust to correct height"

"If not everyone was standing, the ones who were would block everyone's view"

"This would depend on availability and whether I were tired of standing as standing has its own stresses and problems."

"If I can't see the board or my butt gets tired from sitting"

"Whether or not I would use it depends on how many desks are available - if there is only 1, I would likely not use it, but if there are many, I may use it if it is available."

"Can be disruptive during class, block view for other students, and I'm more comfortable sitting"

"It would be annoying to be sitting while the person in front of you is standing and blocking your view"

"I feel like majority of students would be fighting for a sit down desk and there's a lot of short people on campus. For someone super tall to all of a sudden be standing up can really distract others."

"Some people are taller than others - I like to be able to see my professor and the board."

"Depending on location of standing desks, you run the risk of being an obstruction of view for other students"

"Wouldn't want to draw attention to myself, I also have a hard time seeing and I think these desks would have to be at the back"

Depends on the social norm

- "Too used to sitting down at a proper desk. Frequent back pains would prevent me from standing up for long periods of time."
- "Depending on the business of the class and where my friends were sitting"
- "If it was the norm I would use it, but if not I wouldn't."
- "Wouldn't want to look weird in front of the class"
- "It would be nice to not sit all the time, but I also think it would be socially awkward to not be sitting when everyone else is"
- "It's a new concept so there would be social pressure to not use it"
- "It would still be weird transferring from the sitting to standing position mid lecture"
- "Embarrassing."
- "Awkward if not everyone was standing"
- "I have never used one and would try it out but would only continue to do so if they were being used by others. It is more functional for a study space than a lecture"
- "It's weird unless everyone uses it."
- "I'd feel embarrassed"
- "It would be somewhat awkward because most students have other students that they tend to sit with. Using a standing desk during class would be an act of intentionally removing oneself from one's group"

Depends on the class type/time/task

- "Depends on how tired I am rather than what classes I would be taking. However, if it is a course that requires strenuous note-taking, I'd prefer to be sitting down."
- "I can choose to stand if I want, but I can also sit if I'm tired; I wouldn't use it for some classes, since the sit-stand desks are at the back and I usually prefer to be up at the front for some classes to take notes"
- "Depending on length of class/ time of day (I wouldn't use it for a 3 hour lecture or early or night classes)"
- "Depending on the business of the class and where my friends were sitting"
- "Same reason as the standing desk"

- "Same as standing desk"
- "Can pick whether or not I'd want to stand; depends on the class"
- "Depends on the lecture and the length of it"
- "Most of my classes involved me needing to pay attention to a lecture so I don't think it's necessary. If the class involved actively doing work than I would consider it more necessary."
- "Depending on the time of day as in later classes id prefer to sit"
- "There would probably be a time that doing group would be easier if we stood around a desk"
- "There are some classes where I would prefer to sit (i.e., discussion-based classes, or classes that take place early in the morning when I am tired)."
- "Some days I'm more restless then others so I'd want to stand. As well I wouldn't want to use it for my math class."

Depends on the length/ number of classes

- "It would be useful depending on how long the class is"
- "Depending on length of class/ time of day (I wouldn't use it for a 3 hour lecture or early or night classes)"
- "I would never want to stand for a whole class."
- "I feel like always standing for every class would become tiring and lead to sore legs"
- "If I have back to back classes I may want to sit during some classes but I would try to stand most of the time"
- "It depends the length of the class, but it would be good to stand and sit in the middle of classes to not get too tired from sitting"
- "I would use it for most classes, but if I have a lot of classes one day then I would probably sit for one class to rest my legs."
- "Again, if provided the opportunity would use it every class for portions of the class, but not the whole time."
- "I believe that I wouldn't be able to get used to standing at a desk, after going to school and taking classes sitting down for so long. Furthermore, for certain lectures that are longer (2+ hours), my legs would tire."
- "Would use in long classes (3 hour classes) cause it's tiring to be sitting all the time, feels uncomfortable, want to stretch"

"I can't stand for that long"

"Depends on the lecture and the length of it"

"Depending on the length of class, and my level of tiredness/soreness that day"

"Won't use it for 3 hour classes"

"Most lectures are too long for me to remain standing"

"Would be too tiring to use all day"

"It keeps me more alert throughout the class, less tendency to drift off, and reduces time sitting (as it presumably would not be available in every class)."

Note. Some quotes appear under multiple categories.

- 9 Appendix C. Supplementary Material. Quotations Supporting Themes Identified for Using
- 10 Dynamic Sitting Desks in The University Classroom.

Overall Perception

Supportive

"It looks fun"

"It would not be blocking others views and I would be able to keep a steady posture"

"I think it would be a fun way of sitting that would make you move around a bit more"

"This type of desk would be perfect to keep me engaged and alert"

"It's better than not moving at all"

"It's good to have options, depending on how sedentary the day is"

"Its still sitting, and I don't use a back rest very often anyways."

"Not really sure what a dynamic sitting desk is but it sounds helpful in tackling sedentary behaviours"

"Seems more convenient than the other desk options"

"Fun!"

"Comfy and good for my back"

"I am always looking to correct my posture and would use these desks to improve it"

"I don't mind anything as long as I'm sitting down."

"It is better to sit up straight in class to pay attention to the teacher, which doesn't make a difference from regular desks/chairs"

"I can still sit but at least my posture would be better"

"They look comfy and cool"

"I tend to move around a lot when I'm sitting in lectures anyways, so if these types of seats are provided to me I'd be very likely to use them for everything"

"Allows me to move around more."

"You do not need to stand, and therefore would not block any other students' vision and your legs would not get too tired"

"Could always use a bit of variation while I'm in class"

"I like having multiple things to do"

- "I believe it would be more comfortable than traditional sitting desks."
- "Because I do not like to sit during class time, especially for the 1 hour lecture"
- "It looks pretty comfortable"
- "It gives me something to do while in class"

This is what I use at home.

- "Easy to implement. Enjoyable to use. Excellent trunk activation."
- "Again, just to change things up from a normal chair, and to work on posture"
- "It would probably look dumb unless other people are also doing it. If they are, it would be fun and I would always do it if available."
- "I fidget a lot"
- "I would enjoy having the option to move around during class"
- "It looks fun"
- "I believe it will help with core strength and keep your body moving so you don't get stiff."
- "It looks fun so I'd use it"
- "I can see how it would be distracting, but it sounds fun"
- "Fun"
- "I believe it's a good thing to be able to have a dynamic sitting desk available"
- "They look very comfy"
- "Comfortable, but also engages the core. I fear however that it would be a source of distraction for the students."
- "I may want to sit down at certain times"
- "It's comfortable. Helps restless people. Great for students."
- "Comfortable"
- "I think it would keep me active while also allowing me to type"
- "I still get to sit and it's better than a regular sit-down desk"

"Easier"

"I find it nice to have the option to be able to shift positions to avoid stasis of spinal fluid as well as to relieve pressure."

"Sitting on a ball sounds fun!"

"It would help me improve my posture, but I wouldn't want to use it all the time"

"Much more comfortable - easier to focus when comfortable"

"These desks provide an outlet for fidgeting behaviour and as far as I know do not aggravate my back injury"

"It seems comfortable and more easily adjustable"

"Fun"

"It seems to be effective in allowing movement, but can be distracting"

"It can keep me moving and more concentrated in lectures"

"This lets me be less sedentary and provides a solution to my sore feet problem when I stand too much."

"I always wanted a standing desk but 1 they are expensive"

Undecided

"Unsure what it would be like"

"I would try it once probably for fun, but it might be too distracting"

"I would try it out but I don't think I would like it."

"I would want to try the desk to see if I enjoyed using it or if it helped me focus."

"I would try it and see if I liked it"

"I don't know what it is"

"I would at least try it out to see if I preferred it"

"I would want to try it out"

"Never tried"

"To try something new"

"They would be cool to try, but I think I would be too distracted by it."

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"I'd try it"
"Dynamic sitting desk"
"I think it would be fun to try out"
"Simply to try it"
"I would give it a try"
"To try it out"
"It would be nice to try"
"It's something new to try and I like to try new things"
"I don't know if I will like it or not, so I would try it at least once."
"I would like to try it but I'm not sure if I would use it for all my classes."
"Maybe I'll use it"
"Would definitely try"
"Just out of curiosity I would try it"
"I would maybe want to try it out"
"Undecided. Seems distracting"
"I don't know if would for me"
"Would compare it to a regular desk"
"I'd try it"
"I am not sure how this kind of desk would work."
"I would test it out. But I would just find myself bouncing or not paying attention"
"Just to try it for fun."
"If it works, I'd use it more often"
"Try it out"
"Not sure"
"I've never tried it - so I would definitely have to try it at least once and see how I feel
about it."
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"I might try it out, but have no clue whether I'd make a regular habit of it or not"

Opposed

"I think it is stupid"

"Too used to sitting down at a proper desk. Frequent back pains would prevent me from standing up for long periods of time."

"It's SO distracting!!!!! I would get so annoyed. If someone needs some cushioning they can bring a seat pad"

"I find they can be uncomfortable."

"I usually get enough physical activity in my week"

"I prefer to sit"

"Doesn't interest me"

"I find them uncomfortable"

"Why though?"

"It looks uncomfortable, there is nothing to lean back on"

"I believe that I wouldn't be able to get used to standing at a desk, after going to school and taking classes sitting down for so long. Furthermore, for certain lectures that are longer (2+ hours), my legs would tire."

"Doesn't interest me"

"Seems impractical and that it would take up a lot of space; it would be hard to sit with friends"

"For use in class it seems unnecessary"

"I don't see any difference over a regular desk"

"It's uncomfortable"

"It doesn't personally look comfortable to sit at for a long period of time."

"The arrangement does not look comfortable."

"Not stable"

"I prefer comfortable seating. I have one class where the chairs are uncomfortable and I am always focused on how sore my back is and it distracts me from the content. I prefer for my seating to be something that I do not notice/think about because it does

not interrupt my other activities.?

"It's not a very stable "chair""

"They are probably good for you, but I just don't see myself using it."

"Just seems too odd for me personally"

"Students would break - waste of money."

"The exercise balls wouldn't be practical in large spaces. Potential for accidents."

"They look uncomfortable."

"I have used both standing desks and dynamic sitting desks, because of regular exercise I find dynamic sitting desk to be more of an annoyance when compared to a standing desk"

"I don't want to"

"Seems uncomfortable to use."

"Not as practical"

"In class I need to focus and sit to write notes properly; also it's not as comfortable"

Personal Factors

Health/Injury

Facilitator

"Changing seating positions in class makes me feel less stiff and helps circulate blood"

"It's healthier"

"Comfy and good for my back"

"I am always looking to correct my posture and would use these desks to improve it"

"I can still sit but at least my posture would be better"

"Easy to implement. Enjoyable to use. Excellent trunk activation."

"Again, just to change things up from a normal chair, and to work on posture"

"I believe it will help with core strength and keep your body moving so you don't get stiff"

"Don't even know the function of a dynamic sitting desk."

"Comfortable, but also engages the core. I fear however that it would be a source of

distraction for the students."

"I find it nice to have the option to be able to shift positions to avoid stasis of spinal fluid as well as to relieve pressure."

"Looks like it reduces strain"

"It would help me improve my posture, but I wouldn't want to use it all the time"

"This lets me be less sedentary and provides a solution to my sore feet problem when I stand too much"

"Some core work"

Barrier

"I have knee problems"

"It doesn't look comfortable or stable, and would put undo stress on my back from the constant need for stability"

"I have a sensitive neck and back and require standard chairs with a back if I am to sit"

"Bad for posture"

"If it was a boring class and I fell asleep there's a higher chance of me falling off by accident"

"No back support. Feel like it would make posture worse."

"They do not provide proper support and would become safety hazards when improperly used or played with"

"The exercise balls wouldn't be practical in large spaces. Potential for accidents."

Classroom Performance

Facilitator

"This type of desk would be perfect to keep me engaged and alert"

"Bouncing on the dynamic sitting desk really helps me focus at times, for example if I'm trying to think of something and it doesn't come to my mind, I strangely find that it'll come to me in a couple of bounces. It keeps my legs from getting too sore as well!"

"Doesn't effect your normal class note taking routine"

"Much more comfortable - easier to focus when comfortable"

"It can keep me moving and more concentrated in lectures"

"Some classes are easier to fall asleep in, standing would help stay awake. Standing while speaking in class (for courses with discussions) also makes speaking more enthusiastic"

Barrier

"Distracting"

"I would try it once probably for fun, but it might be too distracting"

"Wouldn't want to be distracting"

"It's SO distracting!!!!! I would get so annoyed. If someone needs some cushioning they can bring a seat pad"

"Too much variation, it would be distracting"

"They would be cool to try, but I think I would be too distracted by it."

"Distracting"

"Don't want to be a distraction"

"Distracting from class"

"Too distracting for me and others"

"I think I would get distracted on it easily."

"I think this would be very distracting"

"All the motion going around may affect the teacher/lecturer?"

"Distracting and useless."

"I'd worry about balance. In addition, I think on the times where I was annoyed by others tapping their feet and realize that the bouncing that would ensue from these kinds of desks would be very irritating to see."

"It seems uncomfortable and distracting for other students"

"I would use it, however would be more distracted in class (I think)"

"It would distract me from paying attention to the professor."

"Undecided. Seems distracting"

"Distracting"

"I can see how it would be distracting, but it sounds fun"

"I cannot type while sitting on a yoga ball."

"It may get distracting, and there is no back rest"

"Comfortable, but also engages the core. I fear however that it would be a source of distraction for the students."

"I think it would be distracting to others."

I would feel distracted

"People wouldn't use it properly, it would be distracting"

"I prefer comfortable seating. I have one class where the chairs are uncomfortable and I am always focused on how sore my back is and it distracts me from the content. I prefer for my seating to be something that I do not notice/think about because it does not interrupt my other activities."

"It doesn't look comfortable or stable, and would put undo stress on my back from the constant need for stability"

"Distracting"

"Seems distracting during class for others"

"It is not easy to properly write notes"

"I would test it out. But I would just find myself bouncing or not paying attention"

"I've tried sitting on an exercise ball and felt it was difficult to stay balanced and keep focused on my work"

"Comfortable, but easy to get distracted"

"This can get really distracting and I feel I would bounce up and down whenever I get bored of the professor."

"Desks like the ones shown would likely cause more disruption between class changes, and more distraction for students"

"I would get distracted."

"Intrusive to the classroom environment"

"Too much of a distraction"

"I wouldn't feel comfortable. I also feel this could be a distraction to other students if people are really bouncing around or moving on the ball - so these types of seats should especially be at the back of the class to limit distractions."

"It seems to be effective in allowing movement, but can be distracting"

"Based on the image of sitting on a exercise ball, I feel it would be too distracting"

"In class I need to focus and sit to write notes properly; also it's not as comfortable"

Social/Environmental Factors

Depends on the day

"It's good to have options, depending on how sedentary the day is"

"Sometimes I want to sit with minimal distractions"

"Depending on the mood and availability"

"Depends when, how busy my day is and if it's after practice"

Depends on the location/availability

"Depends on location of desk relative to screens, outlets, doors, etc."

"Depending on the mood and availability"

Depends on the social norm

"Would depend on what others were doing"

"It would probably look dumb unless other people are also doing it. If they are, it would be fun and I would always do it if available."

"No, it's weird unless everyone is going to be sitting on one."

Depends on the class type/time/task

"I cannot type while sitting on a yoga ball."

"If it was a boring class and I fell asleep there's a higher chance of me falling off by accident"

Depends on the length/ number of classes

"It doesn't personally look comfortable to sit at for a long period of time."

"Would not be good for too long of lectures"

"Some classes can facilitate more movement than others"

"It might not be comfortable for long periods"

Note. Some quotes appear under multiple categories.