



# University Students' Perceptions of a 30-Minute Break During Class: A Realistic Practice for Wellness?

## ABSTRACT

This SoTL study aimed to discover how teacher education students engaged with a 30-minute unstructured break during a weekly three-hour lecture. Cognitive fatigue and resulting stress accumulation have negative effects on wellness. Education students can accumulate significant stress when studying and preparing. This, in turn, affects their career outlook and may affect teacher retention. Pausing a cognitively demanding task and taking a break can reverse the strain reaction and support sustainable, long-term wellness. However, taking an effective break is often difficult because it can be perceived as a waste of time and a loss of productivity. Research shows the opposite effect. If we educate higher education students about the benefits of taking effective breaks and then model this practice in class, can we promote an accessible and realistic stress management strategy? Can student teachers potentially take this strategy with them into their teaching careers and classrooms? Using pre- and post-surveys as well as “Weekly Break Logs” during class (N = 70), followed by a post-course focus group (n = 4), the study found that 100% of participants post-course valued the break. They spent it socializing or going for short walks and did not spend it on their devices. The majority felt refreshed and motivated to return to learning following the break. Focus group findings revealed the value of taking breaks, and participants were motivated to continue this practice in their professional lives.

## KEYWORDS

higher education, student wellness, teacher education, breaks

## INTRODUCTION

In academic settings, such as higher education classrooms, intense learning and mental work causes cognitive fatigue and decreases one's ability and motivation to focus. Taking breaks becomes imperative. The benefits of taking intentional breaks throughout the day are well established. These benefits include a decrease in cognitive fatigue and blood pressure and an increase in focus, motivation, and productivity (Berto 2014; Blasche et al. 2018; Castro et al. 2020; Hockey 1997; Jiang, Schmillen, and Sullivan 2018; Lynch, O'Donoghue, and Peiris 2022; Meijman and Mulder 1998; Wendsche, Lohmann-Haislah, and Wegge 2016). Although the benefits of taking breaks are known, this practice can be perceived as a waste of time, especially if left unstructured.

This scholarship of teaching and learning (SoTL) study aimed to find out if implementing a 30-minute unstructured break within a three-hour higher education course could be a strategy to support student wellness. Further, how might students perceive an unstructured break? Integrating a 30-minute break during class represents attempts to reconsider what “being productive” means. Taking a break is about “enabling productivity” and investing in healthy practices that allow our brains to perform better and for longer, allowing us to do our best instead of simply getting work done.

## LITERATURE REVIEW

Movement breaks in elementary school settings are supported; research has found an increase in concentration with no teacher-perceived detrimental effect on the learning environment (Camahalan and Ipock 2015; Fenesi et al. 2018; Mead et al. 2016; Mullins et al. 2019; Watson et al. 2017). Similarly, intentional movement breaks to combat sedentary tasks in higher education and workplace settings are beneficial for productivity, yet barriers often include space, weather (outdoor walking), and time restrictions (Blasche et al. 2018; Johnsen, Brown, and Rydstedt 2022; Keating et al. 2022; Lever, Mathis, and Mayworm 2017; Lynch, O'Donoghue, and Peiris 2022). Higher education students spend 9.8 to 10.7 hours each day sedentary in average, including, but not limited to, courses and studying (Castro et al. 2020). Although instructors may afford a short break during class, students may not be aware of how to take an effective break and the benefits of them. Little research focuses specifically on unstructured breaks which allow complete, autonomous choice of task(s), and how students, once educated on the benefits, perceive and use breaks occurring during class time.

### **Wellness**

The World Health Organization defines health as “. . . a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity” (2023). Included in the definition of mental health is that individuals shall be able to contribute to their community and work productively, because they are able to realize their full potential and cope with stress. This is fundamental to enjoy life, make a living, and think and interact; it should be of utmost importance to a community and our society as a whole (World Health Organization 2023).

### **Teacher education**

When referring to school wellness, students' wellness is often at the forefront, but an equal amount of attention should be paid to teacher wellness. Teaching is recognized as a stressful and emotionally demanding career and teacher wellbeing is directly related to student wellbeing. Attrition and burnout rates among beginning teachers are high, therefore increasing the urgency and responsibility to educate teacher candidates (TCs) about wellness practices to sustain a positive outlook on the teaching profession (Bradford et al. 2019; Corcoran and O'Flaherty 2022; Gunn and McRae 2021; Ingersoll et al. 2018; Lever, Mathis, and Mayworm 2017; Schaefer, Long, and Clandinin 2012; Taylor et al. 2019).

While a TCs' sense of autonomy might increase during a teacher education program, their sense of mastery, self-acceptance, purpose, positive relations, and personal growth decreases (Corcoran and O'Flaherty 2022). Learning about management of stress is important for academic performance as well. Stress can cause lower academic performance, causing more stress. This is a common cycle unless some interventions take place (Bradford et al. 2019). Feelings about life and work are impacted by a TC's stress and their ability to cope with it (Taylor et al. 2019).

Providing a teacher education course about wellness is uncommon. When provided an opportunity to study wellness in the teaching context, TC's recognized self-care as a professional responsibility, and “. . . expressed a commitment to carry forward self-care practices into their professional roles as educators and to share them with their future students and colleagues, thus promoting resilience in others” (Woloshyn and Savage 2020, 930–31). TCs who learn about wellness practices to carry into their teaching career may have more longevity in the field.

It is imperative for teacher education programs to focus on TCs' abilities to enhance their own well-being and emotional competence in order to reduce attrition and maintain a positive outlook. Higher education institutions and teacher education programs can play a role by providing an

upstream approach through offering strategies and wellness education. Helping TCs understand through coursework that wellness and health are dynamic and holistic, not static and one-dimensional, is a potential step in the right direction (Bradford et al. 2019; Corcoran and O'Flaherty 2022; Taylor et al. 2019; Woloshyn and Savage 2020).

### **Fatigue and wellness**

Vigilance is displayed during demanding mental work and is defined as our ability to maintain focus and remain alert over time (Blasche et al. 2018). Vigilance deteriorates over time, causing cognitive fatigue and mind wandering. We know that cognitive fatigue not only affects our concentration, but also “. . . manifests itself in negative emotions, irritability, impulsiveness, impatience . . ., insensitivity to interpersonal cues . . ., reduced performance, increased likelihood of taking risks . . . generally speaking in reduced competence and/or decreased effectiveness in functioning” (Berto 2014, 398). A theory on fatigue and vigor (the motivation to invest effort) called Compensatory Control Theory of Fatigue (Hockey 1997) explains how individuals must increase their effort to compensate for fatigue. We do this to maintain performance, however, this effort causes strain reactions such as a rise in blood pressure, and eventually our vigor and performance cannot be sustained.

### **Rest and recovery**

The Effort-Recovery Model (Meijman and Mulder 1998) explains how restful breaks can reverse strain reactions caused by mental work fatigue. Sufficient rest and recovery can maintain long-term, sustainable well-being. However, the opposite is true if we do not sufficiently rest or if demands remain too high; strain can accumulate and lead to prolonged health impairment. An interruption from demanding mental work with the intention to recover has been shown to reduce fatigue, increase vigilance, vigor (motivation), and production even though time is lost due to the break (Wendsche, Lohmann-Haislah, and Wegge 2016). Additionally, the effects of a rest break can last at least as long as 20 minutes following the break (Blasche et al. 2018).

### **Breaks: How and where**

The location of where we choose to take a break makes a difference. Research on cognitive restoration has found that exposure to natural environments helps aid recovery from physiological stress and mental fatigue better than urban or indoor settings (Berto 2014; Hartig et al. 2003; Kaplan 1995; Pearson and Craig 2014). Kaplan's Attention Restoration Theory (ART) tells us that being in nature gives us a sense of “being away” from whatever demands we may be experiencing, which helps restore our cognitive functions. We do not need to spend lengthy amounts of time outdoors—brief contact with nature can boost our mood in as little as 20 minutes (Capaldi et al. 2015; Hunter, Gillespie, and Chen 2019). We also know that taking an effective break does not include the use of a device or technology; walking around or sitting and looking at our devices counteracts the restorative benefits that nature provides (Atchley, Dtrayter, and Atchley 2012; Jiang, Schmillen, and Sullivan 2018).

The optimal duration, frequency, and type of break require further research. A few studies have shown five to ten minute breaks every 20 minutes are viable but perceived by students as an interruption, movement breaks are welcome in comparison to no breaks, and a guided physical activity or relaxation break is more effective to restore motivation and combat fatigue than an unstructured break (Blasche et al. 2018; Peiris et al. 2021).

## Significance

Considering Kaplan's (1995) Attention Restoration Theory, Hockey's (1997) Compensatory Control Theory of Fatigue, and The Effort-Recovery Model (Meijman and Mulder 1998), TCs in a three-hour, weekly bachelor of education class were provided the opportunity to take a 30-minute unstructured break and encouraged to go outside and leave their devices behind. There is little information about if and how higher education students would adhere to such an intervention during a course. TCs in the course would soon be in-service teachers with agency to implement wellness strategies in their own classrooms. It is of great interest to the researcher to find out if/how breaks might be incorporated into their pedagogy and routines.

The research question for the study was: How do students in a weekly three-hour higher education course spend a 30-minute break opportunity? Sub-questions included: Will students adhere to the intervention and actually take an intentional break? How will they spend their break, with whom, and what influences these decisions? Does this behaviour change over the course of the semester? After the course, focus group participants were asked about the value they placed on breaks and if/how they might carry this forward into their personal and professional lives as educators. Can the practice of 30-minute breaks be implemented in other disciplines across higher education, in workplaces, and in the public school system?

## METHODOLOGY

### Context

The study took place in a bachelor of education four-year program at an urban, medium-sized, teaching focused university in western Canada. Class sizes in the program average 30 to 35 students and class sessions are normally once per week for three hours in duration. The course setting was an elective called Teacher Wellness for second and fourth year TCs. Two sections of 35 and 37 students took place in the fall semester; one was on Tuesdays and one on Fridays, both from 8:30–11:20. The researcher was also the course instructor. The focus of the course was to learn about strategies to support and maintain personal health and wellness. One wellness strategy presented was the practice of taking effective breaks and using nature as a restorative tool to increase one's wellness.

The researcher designed the study from a discipline orientation of teacher education and a worldview of constructivism, wherein interpretations are shaped by past and present experiences through interactions with others. This framed the research problem, research questions, and shaped the methods (Creswell and Creswell 2018; Dewey 1938; Merriam and Tisdell 2016).

### Methods

This study was mixed-methods, employing both quantitative and qualitative elements (Appendix A). Quantitative data was obtained retroactively after the course concluded. Qualitative data was collected in the subsequent focus group session. Each method could have been used on its own and one did not necessarily guide the other; however, the primary aim of the research was to find out what meaning participants made of the experience. Both methods were employed to gain a more complete picture of participant perceptions of a 30-minute break, looking back and looking forward (Bryman, Becker, and Sempik 2008; Merriam and Tisdell 2016).

The study used Google Forms, a Canadian approved online survey tool. Research was approved through the university's ethical review process before the course began and funding for the RA was provided by a SoTL research development program.

*Course tasks and data collection*

At the beginning of the course, all enrolled students completed a pre-course questionnaire. Immediately following the pre-course questionnaire and during the first lecture, students learned about research supporting the benefits of taking breaks, spending breaks outdoors, the benefits of nature, and cognitive fatigue. During each weekly class, without exception, a 30-minute break was afforded around the half-way point of class time. This break was unstructured (no tasks were assigned), however, they were verbally encouraged by the instructor to leave their devices in the room and go outside. Upon returning from the break, all students filled out a brief “Weekly Break Log” (total of 12 weeks) online using a scanned QR code. On the final day of the course, all students completed a post-course questionnaire identical to the pre-course questionnaire. Following the conclusion of the course, a semi-structured focus group was also conducted with guiding questions (Appendix B).

*Participants and consent*

The study used purposive sampling with the intent of choosing participants that had experienced the phenomenon of 30-minute breaks during a three-hour class. Inclusion criteria were course enrolment and participants needed to have completed the course tasks.

Recruitment took place during class time in the final class; it lasted no more than five minutes, as per the university’s ethics requirements. The RA visited each section. Students could consent to retroactive use of their course tasks as data, participation in the upcoming focus group, neither, or both. Participation did not impact their grade, nor would the researcher/instructor know who had consented until final grades had been submitted; the RA kept all information confidential.

Due to bad winter weather on the final week of classes, recruitment in-class was not ideal because of student absences. Therefore, an amendment to the ethics approval was obtained which allowed the RA to email all students (via the course learning platform, in accordance with privacy policies) from both sections, inviting them to participate in the study by filling out online versions of the consent forms.

After the university’s grade-appeal date, consenting focus group participants were contacted by the RA via email and provided two choices for a date and time. The focus group was semi-structured (Appendix B), and participants filled out confidentiality agreements. The session was held on campus, lasted 60 minutes, and was audio recorded by the researcher. The focus group session was transcribed by Otter.AI and checked for accuracy by the RA. The transcripts were also sent to the participants to check for accuracy, additions, and omissions.

Forty students (N = 40) out of 70 enrolled provided consent for their questionnaires and logs to be used as data and four (n = 4) participated in the focus group.

**Analysis**

The data collected through the questionnaires and the focus group were analyzed inductively, meaning that the research team was looking to capture what was emerging without any preconceived notions about what to expect. The research team interpreted the experiences of participants through the worldview of constructivism. The researchers believe their interpretation of data is also shaped by experiences from the past and present in the same manner that participants shaped and created meaning from their experiences (Creswell and Creswell 2018). It is noted that both the survey and focus group analysis are exploratory in nature in the absence of a control group for comparison; therefore, the findings presented cannot predict behaviour nor are they generalizable. However, the curiosities and findings which emerged provided interesting discussion to consider for teaching and learning contexts and future research. Limitations are discussed in more detail in that section.

### *Survey analysis*

The scaled and multiple choice questions from the course questionnaire and weekly logs were analyzed using descriptive statistics which help the researcher see findings and the main characteristics of the data (Van Lunen, Hankemeier, and Cailee 2015). Statistical analysis was not conducted as a conscious decision by the research team in order to remain consistent with the overall aim of the study, title, and research questions. The study's focus is to understand perceptions of participants, which are best represented as qualitative findings as well as graphs that demonstrate the descriptive aspects of participant responses. The purpose is not to generalize across multiple contexts but instead to highlight a specific context with specific participants to allow for reflection on how 30-minute breaks might be implemented in a classroom context. The visual representation of data will allow a broad audience to access the study's findings such as pre-service teachers, school personnel, policy makers, teachers, and higher education professionals.

### *Focus group analysis*

The focus group analysis also employed an inductive approach. The themes emerged from the data, and there were no advanced assumptions of what categories would emerge (Kowalski et al. 2018). Specifically, using thematic content analysis or thematic coding, the research team first read through all the data once. The first step to organize all the data was to each identify codes or persistent words, phrases, and concepts. At the same time the codes emerged, researchers were reflexive about their own past and present experiences and aware of the bias they held. Next, as a back and forth process, the codes were linked to ideas or patterns, and then back to the data. This process was iterative. Each researcher then categorized the codes into meaningful themes or patterns that responded to the research question(s); themes were exhaustive and conceptually congruent (Merriam and Tisdell 2016). Each researcher recorded three to six initial patterns or themes. Then the research team re-read all the data and together compared their themes/patterns identified to ensure there was agreement. This process was not linear; instead, the research team went back and forth to ensure credible interpretation (Kowalski et al. 2018). A final step was to relate the themes/patterns to the literature (Bryman, Becker, and Sempik 2008), as presented in the discussion section.

## FINDINGS

### **Pre- and post-course survey comparisons**

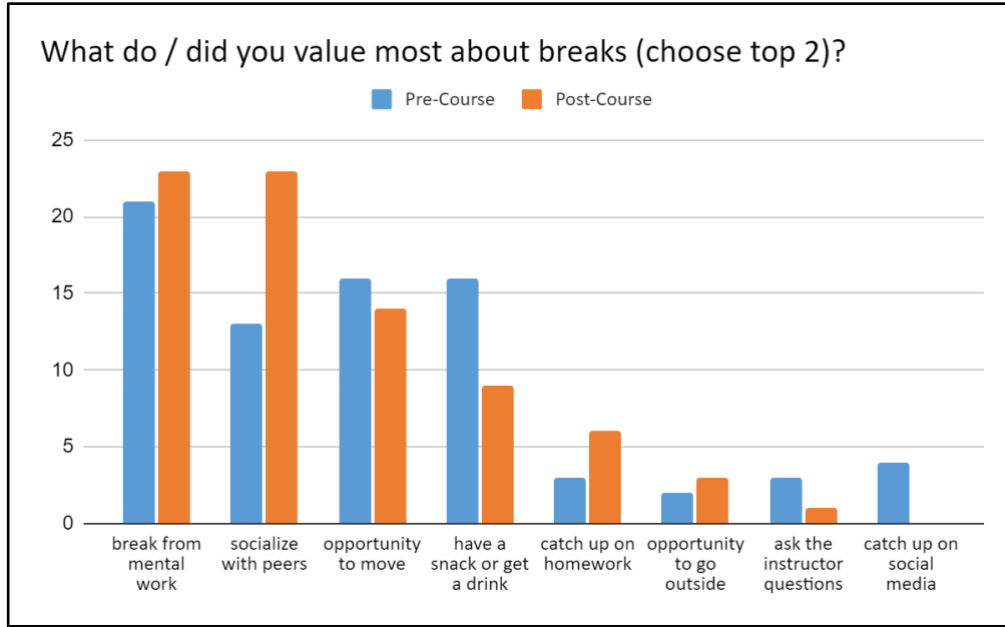
The pre- and post-course questionnaires were compared to see if there were any changes over time regarding behaviour and self-reported vigor and vigilance. The quantitative data also reflected the types of activities participants engaged in during breaks and provided self-reflections on why they chose these activities.

The pre- and post-course questionnaires revealed that 75% of participants valued taking breaks before the course began whereas 100% of participants valued taking breaks after the course. When asked about the aspect(s) of a break that they valued most, both pre- and post-course data showed taking a break from mental work was the top choice (Figure 1). Socializing with peers increased in its value from pre- to post-course, as did catching up on homework. However, having an opportunity to move around and get a snack decreased in value from pre- to post-course despite reported increases in engaging in these activities week over week (see Figure 2).

Participants were asked, generally speaking, what they would normally do during a break pre-course and again post-course. Figure 2 shows that the largest increase from pre to post was talking to peers, having a snack or meal, and going for a walk. Checking social media and checking email both decreased.

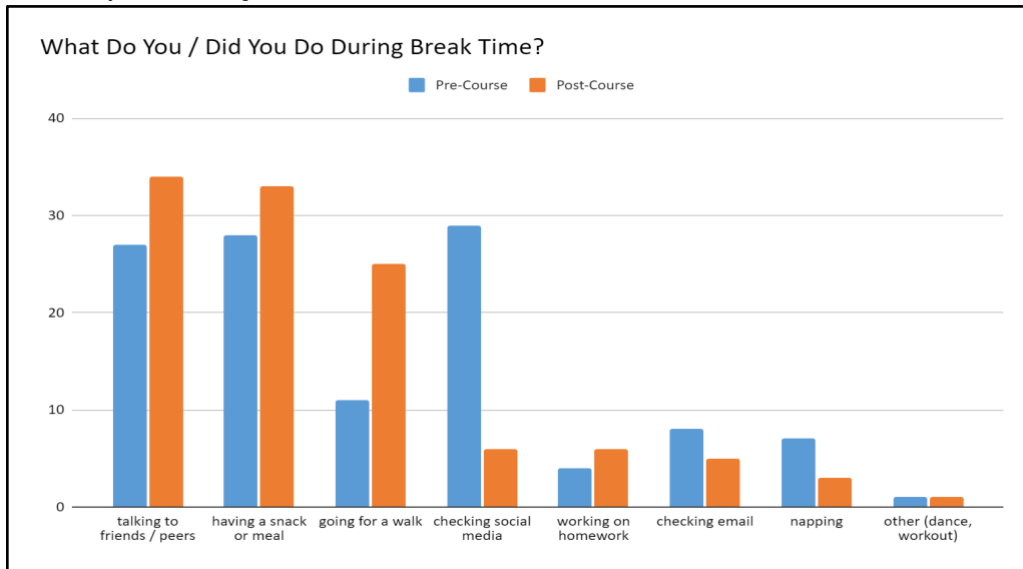
Participants were asked about what influenced their choices during break times (Figure 3). Before the course the leading influence was “how my mind feels” and this remained the highest influence but increased from 13 to 18 participants. Peers/friends increased as an influence from pre- to post-course from six to nine participants while homework/workload and “how my body feels” decreased as influences.

**Figure 1.** What did you value about breaks?



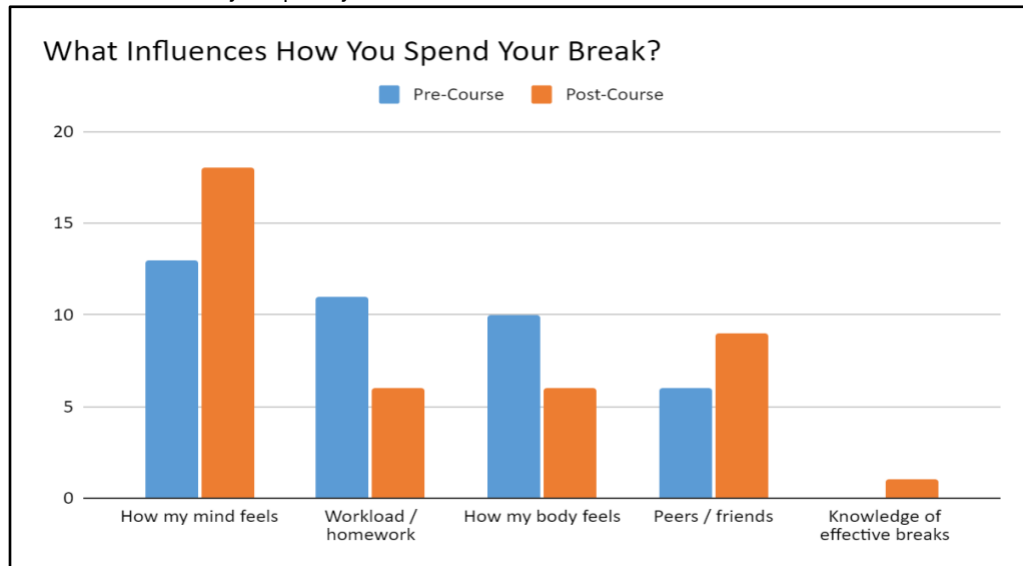
Note: Pre-course and post-course, participants were asked to choose two options that best describe what they value most about the opportunity to take a break.

**Figure 2.** What did you do during breaks?



Note: Pre-course and post-course, participants were asked to select all that apply to describe what they choose to do during breaks.

**Figure 3.** What influences how you spend your break?



Note: Pre-course and post-course, participants were asked to choose their top influence when choosing what to do during a break opportunity.

Participants were also asked before and after the course if they make time for breaks. “Always” and “often” increased by 18 responses pre- to post-course (n = 33) while “sometimes” decreased by 17 (n = 6) and “never” remained the same (n = 1). When participants were asked an open-ended question on the end of course questionnaire about if/how they might implement breaks in their own classrooms, the top mentions included movement breaks (n = 13), reaping the benefits of breaks (n = 8), and allowing students the opportunity to refocus (n = 3). In terms of their personal lives, participants reported that they will use breaks for the benefits they offer (n = 13), they will be more



intentional with how they spend breaks ( $n = 12$ ), they will use breaks to be more productive ( $n = 4$ ), and they will intentionally schedule longer breaks ( $n = 6$ ).

### Weekly Break Logs

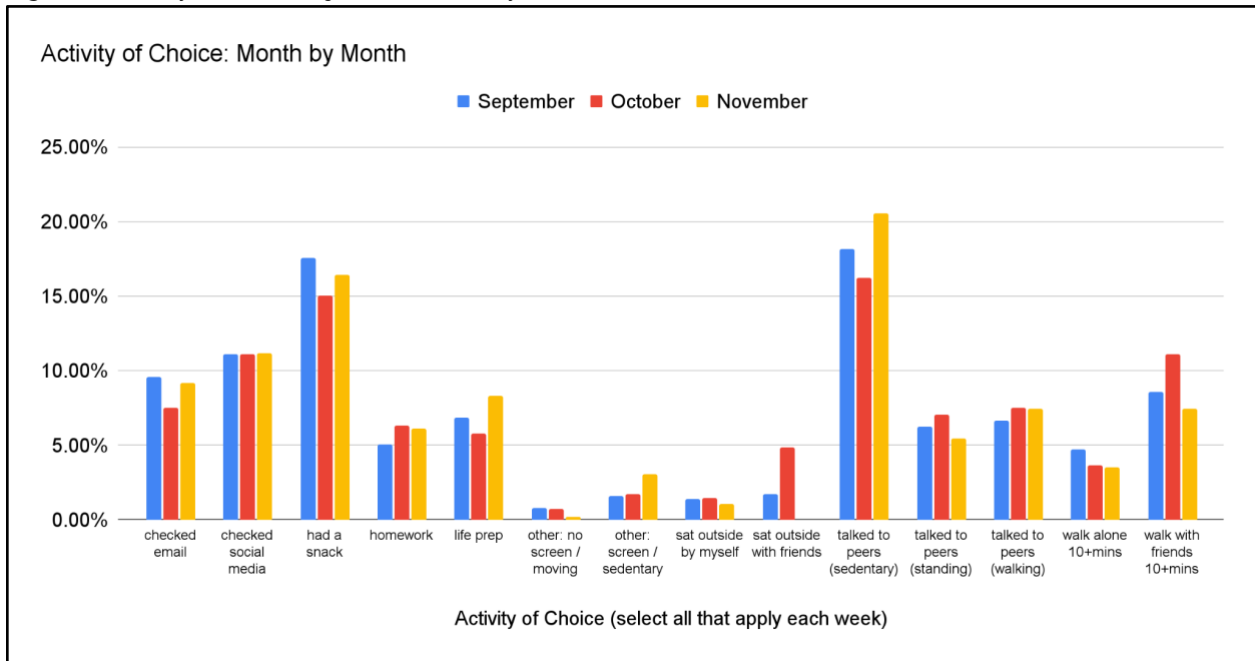
Participants were asked each week to fill out a brief questionnaire, called the “Weekly Break Log”, immediately after the 30-minute break. The first question asked what they did during the break, which was a “select all that apply” question with 15 options. Table 1 shows the options, total responses, and percent of total for each option over 12 weeks, ordered from most to least selected. Looking at each month of September, October, and November separately, the percentage of responses remained mostly consistent for the activities chosen by participants (Figure 4).

**Table 1.** What did you do during the break?

What did you do during the break?	Count	Percent
talked to peers while sedentary	254	18.4%
had a snack or meal	227	16.4%
talked to peers while standing or casually moving	184	13.3%
checked social media	154	11.1%
checked email	122	8.8%
went for a walk over 10 minutes long with friends	120	8.7%
prepared for life outside of school / class	94	6.8%
worked on homework	77	5.6%
went for a walk over 10 minutes long by myself	52	3.8%
other	42	3.0%
sat outside with friends	29	2.1%
sat outside by myself	18	1.3%
napped	6	0.4%
listened to music	2	0.1%
went to the bathroom	2	0.1%
total	1383	100%

Note: Each week participants completed a “Weekly Break Log” immediately following the 30-minute break and were able to select all that apply.

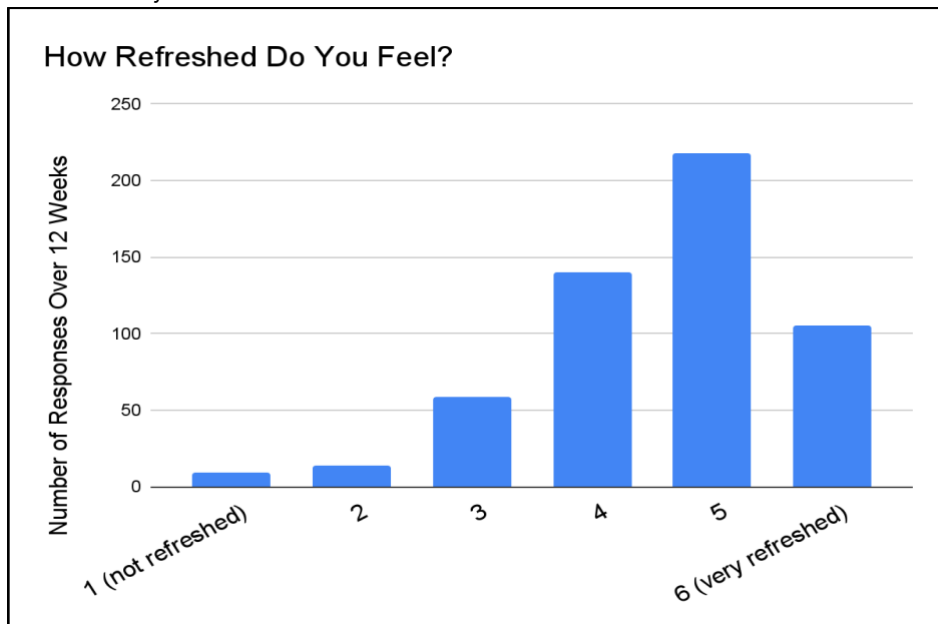
**Figure 4.** Activity choice during breaks, month by month

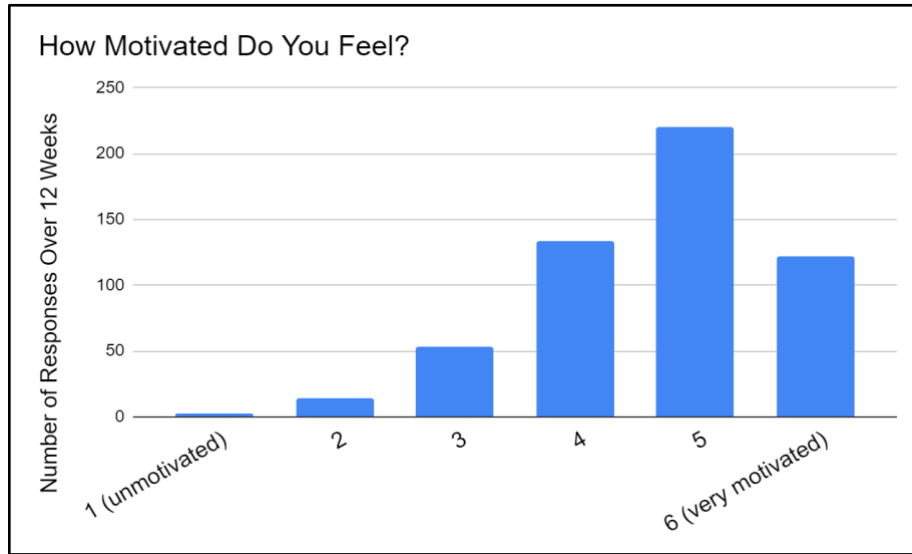


Note: Each week participants identified what they chose to do during the 30-minute break on a “Weekly Break Log.” This is the breakdown of each activity/choice for each month of the semester.

Another question on the “Weekly Break Log” asked participants how refreshed they felt returning to class after the break on a scale of one to six. Similarly, the questionnaire asked participants how motivated they were to continue learning after the break on a scale of one to six. Figure 5 shows the responses for refreshed, and Figure 6 shows the responses for motivated. Both demonstrate a positive increase in feeling refreshed and motivated following the 30-minute break.

**Figure 5.** How refreshed do you feel after the break?

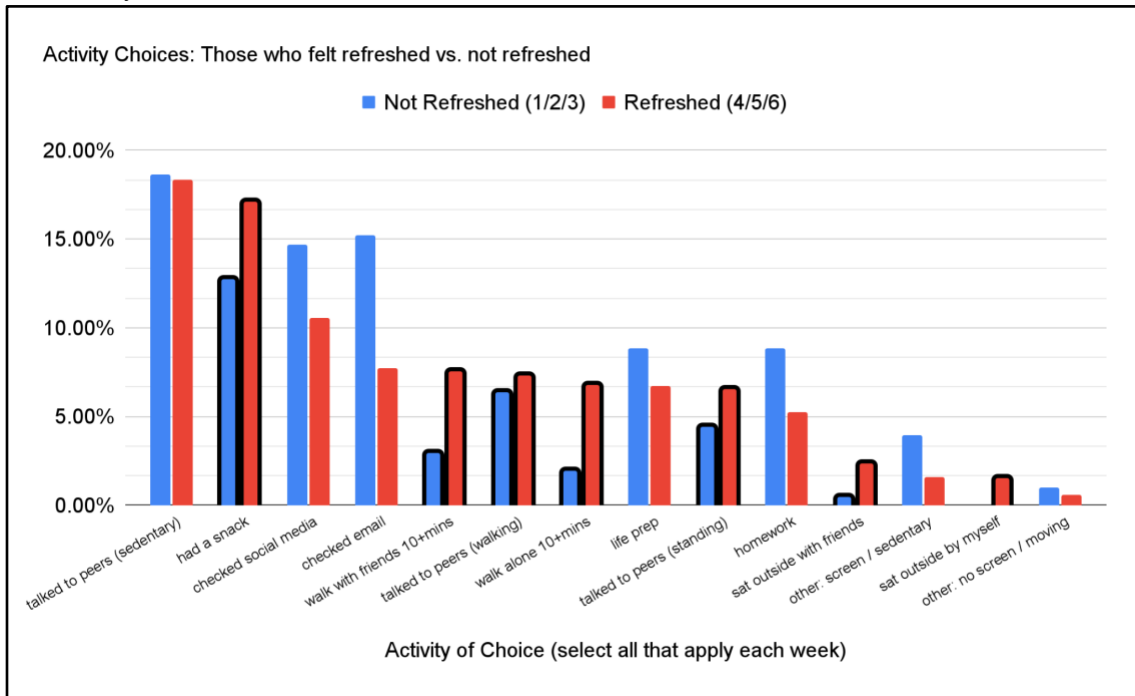


**Figure 6.** How motivated to learn do you feel after the break?

A comparison of chosen activities by participants who felt refreshed (answering a four, five, or six on the scale) to those who reported feeling not refreshed (answering one, two, or three on the scale) is shown in Figure 7. Having a snack, going outside, and/or walking activity choices reflected higher feelings of vigilance following the break.

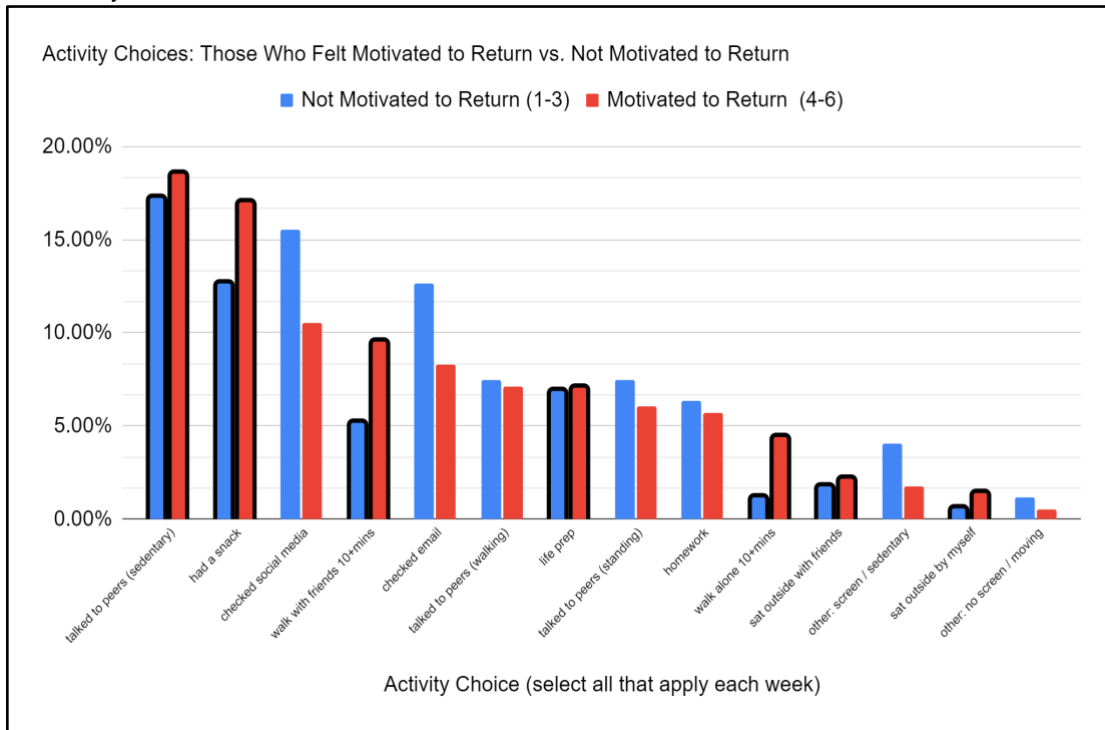
The activities of participants who reported feeling motivated compared to those who reported feeling unmotivated after the break are shown in Figure 8. Activity choices of talking with peers (sedentary), having a snack, walking alone or with others for more than ten minutes, and/or being outdoors showed increases in vigor following the break.

**Figure 7.** Activity choices of those who felt refreshed vs. those who felt not refreshed



Note: Highlighted with a black outline indicates the activities of participants who felt refreshed to return to class after the 30-minute break compared to those who indicated they did not feel refreshed after the break.

**Figure 8.** Activity choices of those who felt motivated vs. those who felt not motivated



Note: Highlighted with a black outline indicates the activities of participants' who felt motivated to learn after the 30-minute break compared to those who did not feel motivated to return.

In Figure 7 and Figure 8, the bars outlined in black show tasks or activities of participants who felt refreshed and/or motivated to return after the break. In many cases, the participants who felt refreshed to return to class and/or felt motivated engaged in non-sedentary and/or outdoor activities during the break. Had a snack, walked with friends, walked alone, sat outside with friends, and sat outside alone showed an increase in both motivation and feeling refreshed. A discussion of these findings will follow in the discussion section.

### Focus group

During the focus group, a forward-looking conversation with TCs (n = 4) took place which focused on if and how they might implement breaks into their own classrooms once they are teachers. Five themes emerged: 1. increased quality of learning; 2. considering the logistics of a break; 3. modeling; 4. understanding a life skill; 5. tension between barriers and benefits. Within each theme, certain ideas or sub-themes were identified based on how frequently they were brought up in the conversation (Table 2).

**Table 2.** Focus group themes and frequency of sub-themes

Theme / Sub-theme	Frequency
<b>Increased quality of learning</b>	<b>34</b>
Refreshed after / more productive after a break	11
Cognitive fatigue / tired	9
Change of scenery	6
Behaviour issues when tired	5
Benefits for everyone	3
<b>Considering the logistics of a break</b>	<b>26</b>
Intentional/habit (not checking devices)	9
Choice of activity	8
Setting expectations	6
Duration—long enough to “make it count”	2
Weather	1
<b>Modeling</b>	<b>29</b>
Teacher / leader—allow for a break, model (take a break)	9
Create a norm/routine	9
Permission to take a break	7
Promise / trust (consistency)	4
<b>Understanding a life skill</b>	<b>22</b>
Knowing the reasons / rationale—educate	9
Practice, build up	8
Self-regulation, awareness of when they need a break	5
<b>Tension between barriers and benefits</b>	<b>17</b>
Transitions (chaos, time consuming), need control	6
Duration—have enough time? / curriculum	5
Perception of waste of time	4
Supervision during break	2

### *Increased quality of learning*

Increasing students' quality of learning by taking breaks was mentioned 34 times during the focus group (Table 2). This was discussed not only from the perspective of a higher education student but also from the perspective of future teachers in classroom settings during practica.

Cognitive fatigue was the most frequently discussed aspect of learning quality, with an inability to focus mentioned nine times, and how a substantial break allowed participants to feel refreshed mentioned eleven. Two participants referred to another class without a break, describing it as exhausting and, "... at the end. I find myself like almost anxious ... I'm like, not able to focus ... clicking on like everything else on my computer ... " (Ava). Carly added that after even one hour "I can't focus anymore. And then by the end I'm like so drained." In the Teacher Wellness class, after the 30-minute break, Hope described feeling as though it "... was like a brand new class all over again. So your brain felt ready again." The concepts of vigilance (ability to focus) and vigor (motivation) were at the forefront of this conversation.

Readiness to learn and productivity were discussed at length. Putting in time is often mistaken for productivity, which was a notion challenged by participants. Specifically, they related this to classroom settings where they would be the teacher figure. Hope wondered about what a school day could look like if breaks were incorporated more effectively (Appendix C; Hope). Participants also grappled with the tension between "giving up" time for a break and the perception of productivity in higher education. Often a professor's solution is to dismiss class early rather than afford a break (Appendix C; Ava).

Participants seemed hopeful that taking time for a break could increase productivity in classrooms and their own lives. They imagined a teaching scenario when they'd say, "just give me 10 minutes of your hardest, most brain work ... And I think that 10 minutes after break would be so much better." (Hope). Carly agreed and related it to personal experiences and study habits (Appendix C; Carly).

A change of scenery during a break (six mentions) was also valued by participants. They related this benefit to school-aged children, speaking about moving from classroom to classroom between subjects in middle and high school. Hope said, "you look at [grades] 7 to 12, like being able to pick your books up and walk to your next class, is extremely beneficial." Physically getting up and leaving the desk or classroom was agreed to be a positive change in the environment and a step toward taking effective breaks. Hope added, "I actually feel like I've taken a break when I leave the environment."

Participants noticed a break can be beneficial to everyone—both for students and the teacher—in the context of learning quality and productivity (three mentions). Ava reflected that some students take medication for ADHD, for example, and that their attention strategies could include more breaks to help them focus longer. Behaviour issues when fatigued (five mentions) came up as well, and Aubrey described an unfortunately common scenario at a practicum school when recess was forced to be indoors due to cold weather (Appendix C; Aubrey). This scenario, while relating to behaviour, also speaks to the importance of a change of scenery. In addition to breaks being beneficial for students, the participants noted how breaks are also beneficial for teacher(s) to feel refreshed. Ava reflected on being afforded a break between classes, saying, "... just having that time to kind of, like, regroup and take a breather. Like, as a teacher, I feel like it made me—I was able to do more for my students, I think because without it, you're just like it all was—you're on all the time" (Ava).

*Considering the logistics of a break*

The logistics of a break, such as a person's chosen behaviour or task, the length, the weather, and what the expectations are for the break came up as a theme. Most prevalent was the sentiment that to experience the benefits of a break, a person needs to be intentional (nine mentions). The intention to take a break of course, but also not spending it ineffectively such as on a device or completing different work.

As a teacher in a classroom, the group discussed how they had experienced a school's timetable of "content-heavy" work early in the day to account for fatigue later in the day. They challenged this by contemplating the use of more and earlier breaks intentionally to help students learn better later (Appendix D; Hope). Aubrey agreed that intentional breaks are rare in school settings. They described a scenario where ". . . [students] had like a 15 minute recess but they had no breaks otherwise except for that 15 minutes." Teachers do not seem to take intentional breaks either, but instead are ". . . also marking and I'm also doing this and I'm also planning for tomorrow all at the same time" (Hope). Switching tasks doesn't make effective use of the break.

Similarly, the participants reflected on their own study habits and taking intentional breaks. Hope shared that "when I was first taught about breaks. I was like, I should really do it in my studying" and then began noticing how much better they felt after taking a break, and ended up getting more work done as a result. Carly agreed that they enjoyed ". . . having that time in your class to actually take a break. I felt like it was really beneficial. And like now like this semester I've definitely taken a lot more breaks." Carly and Hope had both experienced the benefits of a break and could not ignore this new knowledge.

Students agreed that while taking a break is important, being intentional about the behaviour during the break is just as important (Appendix D; Ava). Aubrey pointed out that they need to turn off the screen when trying to read something or else they won't concentrate on the reading. Hope described intentional breaks as requiring some movement such as ". . . go to the fridge, grab an apple and come back . . . can say I've taken a break . . . I actually get up and move myself. And that feels more like an actual break" (Hope). Each participant noted that they had personal preferences on what to do during a break.

Setting expectations for a break are important (six mentions) so students know what they should and should not be doing. As a teacher, Hope compared it to setting the expectations for any assignment or task, you'd ". . . show them what you expect" (Hope). In the same regard, providing an unstructured break was unanimously agreed to be the best option based on their personal experiences as students. The element of choice was mentioned eight times. Rather than a prescribed task or assignment to accomplish during a break, as some professors tend to do, ". . . it's just nice to have the choice. . ." (Aubrey) and to ". . . go outside would be nice" (Ava). They shared that they often chose to socialize unless there was a pressing email to reply to, but this also felt effective because it relieved some stress and allowed them to focus during class time on the content and not peripheral worries. While they recognized there might be some supervision differences in a school setting, they agreed it would be possible to incorporate choice during break times (Appendix D; Aubrey and Ava).

The duration of a break was a topic of conversation as well (mentioned twice). The group unanimously agreed that 30 minutes for a break felt as though a person could accomplish something or feel enough separation to be refreshed upon a return to learning. Shorter breaks, such as in other classes, ". . . you feel like 15 minutes is enough time to like, only go to the washroom, have a small chat and come back like there's not a big enough separation," (Hope) while 30 minutes ". . . just feels a lot less rushed and feels like you can breathe" (Aubrey).

Weather was only mentioned once during the focus group and it was in relation to the time required to put on warm clothing and to take it off if a teacher chooses to go outside with the students. This concern was included in the theme focused on barriers.

### *Modeling*

Participants discussed how important it is as a teacher to consider yourself a leader. Taking breaks can be modeled by the teacher through creating space for breaks and modeling effective break behaviour (nine mentions), as well as keeping a consistent routine (nine mentions). Further, it was important to participants that they knew a break was consistently coming (four mentions) and not only when there seemed to be enough time in class for it. If a leader creates space for breaks, they agreed, it provided students with permission to take a break (seven mentions) and made it “ok” instead of frowned upon or a waste of time.

The group was challenged by how a teacher might model effective break behaviour themselves, because they will have supervision responsibilities. Aubrey wondered, however, “. . . if everybody’s doing it, why can’t the teacher be doing it?” As participants discussed ideas, Hope simply said, “you can just sit there as a teacher and make sure everyone’s safe. Like that is what supervision is.” The notion that teachers always have to be productive while students are out for recess was challenged by participants. Carly agreed “. . . just like sitting there doing nothing while [students are] doing their breaks and then you also get the break, just supervising” could be effective and “and you’re showing them your example of taking a break. They’re more apt to positively take that break” (Hope). After some conversation, the group agreed it would be possible to have a break as a teacher while still supervising for safety.

Further, the participants discussed how it might be important to be explicit about breaks, so that the teacher also gets a break. It’s not a time to mark assignments or do work, but instead Carly said “verbalizing what you’re doing” helps children recognize this. Aubrey provided an example of this (Appendix E; Aubrey 1). Participants agreed that being open and honest about what you are doing is really important for students to hear and see. Modeling the expected behaviour, they thought, would help create space for the teacher to also have a break.

The discussion came back to an earlier theme: the aspect of being intentional about a break (Appendix E; Hope). In the same way that you, as a teacher, create space for a break, your students will ensure you take a break too.

A very important aspect about creating space for breaks, in addition to modeling behaviour and setting expectations, is to consistently include them. Participants agreed that consistency is easier said than done, but it was so important in the Teacher Wellness class. To them, knowing a break was coming regardless of class timing and competing priorities was important (Appendix E; Aubrey 2). They agreed that after a few weeks of the course, noticing the break was consistent, they could trust that it would be there each week. This relieved some stress for them because they knew what to expect and the promise was kept. Aubrey shared how important it is to create a classroom routine (Appendix E; Aubrey 3). If taking regular breaks is an expectation and a regular part of the day, it becomes routine and normal. As teachers, this modeling resonated with them as something they wanted to emulate.

### *Understanding a life skill*

Participants shared that they believe knowing and understanding the benefits of breaks before experiencing them will be valuable for their students. This information will help students see breaks as a life skill to help manage stress and learn better throughout the day. The value of knowing



the rationale behind breaks was mentioned nine times in the discussion. They also recognized that taking breaks is a skill requiring practice (eight mentions) but that educators can provide students with some ownership once they have an understanding and awareness of their own self-regulation (five mentions).

At the start of the Teacher Wellness course, students were provided with information about the benefits of taking breaks, how to effectively use this time, and were encouraged to go outside during breaks. When asked about teaching this information to K–12 students, Hope shared that, “. . . explaining the benefits of breaks to elementary aged kids? I think it would be extremely beneficial . . . they would absorb the benefits of a break. When I was first taught about breaks. I was like, I should really do it in my studying.” Once participants had information and an opportunity to experience breaks, it was difficult to not incorporate breaks into their day (Appendix F; Ava). Hope and Aubrey agreed that discussing with students how to take a break is as important as deciding what activities are allowed so that it does not get out of hand (Appendix F; Aubrey and Hope).

As a teacher, describing fatigue and framing breaks as an important skill for self-regulation is something the group discussed. Hope said, “Little kids, we don’t give them enough credit for their regulation,” and Ava added, “. . . and then my mentor teacher, she does like a “recess debrief,” which I think is, like, so effective,” which helps the students reflect on their break and their mood. Discussing self-regulation and providing space for personal/individual decisions seemed important to the participants, based on their experiences. Aubrey added, “I think that, you know, sometimes people don’t give [children] enough credit. I think that they can make decisions for themselves.” Hope described providing ownership and how she imagined starting the school year (Appendix F; Hope).

The participants imagined themselves practicing breaks as a skill, together with students at first. They reflected on their desire to educate students on benefits of breaks and helping them work through appropriate behaviour(s) during breaks. Their desire is that students would use breaks as a life skill just as they had learned to.

#### *Tension between barriers and benefits*

The theme of barriers and challenges was certainly woven throughout the conversation, but it was the least prevalent in terms of frequency of mentions (17 times). Participants discussed colleagues and administration’s perceptions that breaks are a waste of time (four mentions) and the practice of taking longer or multiple breaks would be frowned upon because it is misunderstood. Additionally, they shared a concern about having enough time to teach everything required from the curriculum (five mentions). Finally, a thread throughout the conversation was about supervision (two mentions) and a feeling of losing control during transitions or breaks (six mentions). However, the group discussed ways that they could potentially take more breaks and how these might look and feel in their own classrooms because they valued what breaks afforded. The tension between barriers and benefits was prevalent.

The participants shared that it did not seem likely that they will be afforded time for breaks. Aubrey almost immediately stated, “we will not get 30 minutes,” when the conversation began. When the group began thinking about ways they had noticed breaks incorporated into classrooms, Hope shared that breaks might look different from class to class and teachers can be creative (Appendix G; Hope). Aubrey also reminded the group that physical education cannot be substituted for a break because there are still learning tasks. She explained how “[The students are] exerting some energy, but they still are learning stuff. They’re still on, right?” (Aubrey) so this could not be considered a true break. However, they all agreed that the belief that pushing through without a break was more productive was a misconception.

Participants held a belief that they would not have enough time to teach the entire curriculum. Aubrey shared her concerns from a TC point of view (Appendix G; Aubrey). The notion of time and not having enough time seemed to be at the forefront, and adding breaks, while understood to be valuable, could create more lost time through “. . . crazy transitions” (Aubrey). While voicing concerns about transitions and the potential ensuing chaos, the participants continued to remind themselves about the importance of breaks and worked together to think through how they could structure the day (Appendix G; Carly).

In the Teacher Wellness course, supervisory responsibilities during the breaks did not need to be considered. Aubrey pointed out a similar comparison, “I think that’s the big issue with elementary versus older kids.” when it comes to supervision and how much freedom can be provided during a break. Hope agreed “I also think when you give little kids a break, it can sometimes get really rowdy and it’s hard to bring them back down.”

The five emergent themes from the focus group were: 1. increased quality of learning; 2. considering the logistics of a break; 3. modeling; 4. understanding a life skill; 5. tension between barriers and benefits. These will now be discussed alongside the findings from the pre- and post-course surveys and the Weekly Break Logs.

## DISCUSSION

It is clear all participants valued the opportunity to take a 30-minute break during a three-hour higher education class. Post-course, 100% (N = 40) of participants reported that they valued the break and did not perceive it as a waste of time. All focus group participants (n = 4) agreed that affording breaks is important for teaching and learning; they recognized the importance and benefits of this practice and were forward-thinking about overcoming challenges to implement breaks in their own classrooms. While these exploratory findings are interesting and positive, the study has limitations which prevent a large generalization to be made and are discussed at the end of this section.

### **Experience the benefits**

Generally speaking, participants experienced the benefits of taking a break first-hand during a course. This was emphasized as participants during class consistently reported feeling an increase in motivation and focus following the break. These findings support Hockey’s (1997) Compensatory Control Theory of Fatigue and Blasche et al.’s (2018) work relating to increased vigor (motivation) and vigilance (ability to focus) following a break from a cognitive task. Post-course, 18 more participants reported their intentions to “always” and “often” implement breaks in their daily lives compared to pre-course. 17 fewer said that they will “sometimes” or “never” take a break post-course. A longitudinal study of such adherence to an intervention could be a potential area of future research.

The opportunity to take a mental break increased in value from pre- to post-course. Specifically, a “substantial” break of 30 minutes (mentioned 11 times in the focus group) afforded enough time to feel refreshed. The duration of the break is an area to explore further, but research suggests too many breaks, too often and too short, are more of a distraction than a benefit (Peiris et al. 2021).

### **Outdoor breaks**

Many students chose to go outdoors for their break to walk or sit, and this choice reflected a larger increase in vigor and vigilance compared to other activity choices such as sedentary visiting or indoor walking. Figures 7 and 8 show that the participants who felt refreshed and/or motivated to return to class had a snack, walked with friends, walked alone, sat outside with friends, and sat

outside alone. It could be a coincidence that these activities are predominantly non-sedentary and/or outside, but it is interesting to note. Focus group participants spoke about the importance of recess and outdoor play time for children, and that moving from classroom to classroom in high school felt like an embedded movement break. Attention Restoration Theory (Kaplan 1995) supports these sentiments; a sense of “being away” from the workplace or cognitive task is imperative to taking an effective break. Being outdoors, even briefly, can boost our mood (Capaldi et al. 2015). Exposure to natural environments better aids recovery from physiological stress and mental fatigue when compared to urban settings (Berto 2014; Hartig et al. 2003; Kaplan 1995; Pearson and Craig 2014). Further research into the time frame spent outdoors may be useful, as 20 minutes is enough to reap the benefits (Hunter, Gillespie, and Chen 2019) but oftentimes recess is only 15 minutes.

### **Cognitive fatigue and behaviour**

Participants reported that they chose their weekly break activity based on how their mind felt. Focus group participants reinforced this by sharing that, despite a packed curriculum during the school year, they know it is important to take breaks to maintain focus and concentration (Blasche et al. 2018; Hockey 1997). Cognitive fatigue causes negative behaviours such as irritability and reduced ability to problem-solve and be patient with others, as well as a decreased level of inhibitions (Berto 2014). This supports what participants in the focus groups shared about not being able to focus after an hour, feeling drawn to social media, or taking it upon themselves to walk to the restroom for a break. They added that children would benefit from a break, potentially reducing behaviour issues and helping to support students with learning disabilities. Taking a break helps restore cognitive functions that have been depleted by fatigue. Rest breaks can reverse strain effects, as suggested by the Effort-Recovery Model (Meijman and Mulder 1998).

### **Perception of “lost time”**

Tensions still exist regarding the notion of “losing time” to a break. A nuanced finding in the week-to-week activity choices was that participants still chose to complete homework (5.6%), complete “life prep” (6.8%), or check email (8.8%) even though these were not the highest in frequency (Table 1). Having a snack was the second highest frequency overall (16.4%). It cannot be overlooked that these tasks may be considered “productive” in nature and participants may have felt compelled to choose these tasks over more leisurely tasks. In the focus group, participants mentioned the perceptions of colleagues and peers as well as their personal perceptions as barriers to implementing breaks regularly in studying or their own classroom settings. This was still a barrier, even after participants experienced the benefits of taking breaks for at least 20 minutes after the break (Blasche et al. 2018) and realized productivity increases despite time lost to a rest break (Wendsche, Lohmann-Haislah, and Wegge 2016). Focus group participants felt they would still need to convince others of the value of breaks. As new teachers, they reflected that this is both an opportunity and a challenge.

### **Leadership and sustaining wellness**

Throughout the focus group, participants discussed their anticipation of how vital rest breaks will be for personal wellness as they enter practicum and their careers. This narrative of anticipated exhaustion and, eventually, burnout aligns with teacher retention literature (Bradford et al. 2019; Corcoran and O’Flaherty 2022; Gunn and McRae 2021; Ingersoll et al. 2018; Lever, Mathis, and Mayworm 2017; Schaefer, Long, and Clandinin 2012; Taylor et al. 2019). These sentiments also emphasize the importance of educating TCs about how to sustain their own wellness and maintain a

positive outlook on the teaching profession (Bradford et al. 2019; Corcoran and O’Flaherty 2022; Taylor et al. 2019; Woloshyn and Savage 2020). Focus group participants shared how important it will be to model the practice of taking breaks for their own students. They appreciated this modeling by the instructor in the Teacher Wellness course. Providing “permission” to take a break was mentioned eight times as an important aspect to the course culture and to the overall acceptance of taking breaks without feeling guilty. Woloshyn and Savage (2020) support this notion of leadership and reinforce that TCs, once educated about wellness, feel a professional responsibility to carry forward and share self-care strategies with colleagues and students. Focus group participants, although challenged, felt hopeful that they could implement breaks in their classrooms which aligns with Taylor et al.’s (2019) work regarding a direct correlation between a TC’s ability to cope with stress and having a positive outlook on the profession.

### **Socializing**

An interesting finding was how participants chose to use their break for social media (pre-29, post six) or email (eight vs. five) less frequently over time. It was anticipated that as the semester progressed and workload increased or became more pressing, participants would choose to spend their break working on homework. However, this was not the case. Instead, the opportunity to socialize in-person with peers increased in value from pre- to post-course (Figure 1), the activity choices which included talking with peers increased from pre- to post-course (Figure 2), and the most popular weekly activity choices overall were talking to peers either while sedentary or walking (Table 1). Contrarily, it is interesting to see that talking to peers while sedentary did not necessarily increase feelings of motivation or refreshed after the break (Figures 7 and 8) yet participants selected this as their break activity. Focus group participants added that they felt the break was more restful when they used it to socialize. Device use counteracts the benefits of a break (Atchley, Dtrayter, and Atchley 2012; Jiang, Schmillen, and Sullivan 2018), and it might be that participants experienced this firsthand, making alternative choices when provided the opportunity. Interesting future research could focus on the social aspects of taking breaks.

### **Unstructured vs. structured?**

This leads to a conflicting finding about providing choice of activity during a break. Unstructured breaks have been shown to be less effective than guided or intentional movement breaks in higher education settings (Blasche et al. 2018). Guided movement breaks are effective for increased learning in school settings (Camahalan and Ipock 2015; Fenesi et al. 2018; Mead et al. 2016; Mullins et al. 2019; Watson et al. 2017). However, from pre- to post-course, participants placed a lower value on the opportunity to move around (Figure 1) and reported less influence from how their body felt for activity choice from pre to post (Figure 3). During the focus group discussions, participants shared the value of moving around during their study breaks and, during teaching, involving daily physical activity. This was contradicted by their unanimous agreement on the importance of providing choice with no specific task during a break. They valued the opportunity to self-regulate, stating that children also have this ability and teachers should encourage them to make choices based on their own feelings. Further, participants were adamant that physical education class and daily physical activity sessions cannot be substitutes, because these lessons still have tasks associated with them. For participants, it was imperative unstructured breaks are afforded during class time without guidance. Differing benefits of structured and unstructured breaks could be an interesting area of future research.

### Limits and considerations

Numerous limitations were present in this study. Below is a discussion of these limitations to ensure transparency, reflection, and areas for future research that may relate to readers in various contexts.

Two limitations were the study's methodology of mixed-methods and its exploratory nature. The focus was to understand participants' perspectives and, therefore, relied heavily on self-reported data collected in both surveys and the focus group. Self-reported data may not entirely reflect actual behaviours and feelings because they can be biased either consciously or unintentionally. TCs as participants may attempt to "respond correctly" or anticipate their peers' and instructor's perceptions. Additionally, the use of inductive approach, including thematic analysis, relied heavily on the interpretations of the research team. These interpretations may be biased despite best efforts to remain neutral and open to various perspectives. The lack of a control group or comparison group is another limit of the study design; one cannot decisively attribute the changes over time to 30-minute breaks unless a comparison group did not receive the same intervention. Some areas for future research are to consider different analysis methods, include a control or comparison group, broaden perspectives by engaging a larger research team, or perhaps include students-as-researchers.

Another limit of this study was the participant sample: it included TCs and not in-service teachers. This could have affected the results in a number of ways. Higher education students spend many hours engaged in sedentary, cognitively demanding tasks both in and outside of class time (Castro et al. 2020). This could have increased their desire for breaks, which could have influenced the perceptions of both the course participants (N = 40) and the focus group participants (n = 4). Although demographic information was not collected, it must be noted that roughly 90% of students in this bachelor's of education program are female and most are direct-entry from secondary school without prior higher education degrees, unlike some programs that are after-degree programs.

More broadly, a limitation to consider is the participant sample of only teacher education students in the bachelor's of education program. Future research could broaden the context and application of the study by: including a participant sample of students studying in other fields and programs, including a wider body of literature to relate findings to, and consulting a larger research team. This could potentially provide a more comprehensive understanding of how unstructured breaks impact student wellness in higher education settings.

Additionally, this study did not require supervision during the breaks because participants were adult learners. This aspect would be entirely different in a classroom setting where the teacher is responsible for ensuring student safety during breaks. TCs who are learning about the teaching profession may be focused on classroom management as an observable and measurable teaching competency. The focus group discussions revolved around challenges related to transitions between activities, student supervision, and liability, as well as the desire to avoid chaos in the classroom. Perceptions of colleagues may weigh more heavily on their minds as beginning teachers. Experienced teachers may not have been as concerned about the perceptions of others. This could have influenced the themes that emerged and may have differed if the population had included in-service teachers who had some years of experience.

The focus group logistics were also a limitation. The timing of the focus group offering may have limited the availability of participants. Eight course participants had consented to be contacted for their inclusion in the focus group discussion but only four ended up participating. All four were in their second year of the program. The other four were in their final practicum which did not allow much flexibility for scheduling; they likely did not join due to the busy semester schedule despite evening times being offered. To have a mix of second and fourth year students may have offered

additional richness. Those who consented to participate in the focus group may have already been thinking favourably about taking breaks and, therefore, shared a common perspective, influencing the discussion and emerging themes.

An important consideration was the location of the classrooms for each section of the course. The location for one section was much closer to an exterior door and an outdoor space whereas the other classroom location was closer to a coffee shop. Environmental considerations, in addition to temperature, type of chairs and tables, windows, and even the lights could be areas for future research regarding fatigue and breaks.

Another wonder is if the lecture at the start of the semester focused on benefits of taking breaks, outdoor benefits, and device use should be included or if this influenced the results. Very few participants (Figure 3) cited this knowledge as influential in their decision to choose an activity for break time(s) but it might be interesting for future research.

## CONCLUSIONS

This SoTL study aimed to find out what higher education students think about taking a 30-minute unstructured break during a three-hour weekly class. Participants (N = 40) included second and fourth year TCs in a bachelor of education program. The main research question for the study was: How do students in a weekly three-hour higher education course spend a 30-minute break opportunity? What do they think about a break, what do they choose to do, why, how do they feel after a break, and will they use this practice moving forward? Can the practice of 30-minute breaks be implemented in other disciplines across higher education, in workplaces, and in the public school system?

The study revealed that 100% of the participants (40) valued the break time and did not perceive it as a waste of time. Generally speaking, participants used the unstructured break to socialize, go for a walk, and have a snack. It was an interesting finding to see the number of participants who chose social media and email or homework as their task during the break decreased over the semester. These findings align with literature on how to effectively take a break to restore cognitive capacities. The social aspect of wellbeing and affording time for relationships and connecting with others could be an interesting area for future research.

One focus of the course was to learn about strategies to support and maintain personal health and wellness. One presented wellness strategy was the practice of taking effective breaks and using the outdoors as a restorative tool to increase well-being. Since TCs in the course were soon to be in-service teachers, with the agency to implement wellness strategies in their own classrooms, it was of great interest to the researcher to find out if/how breaks might be incorporated into their pedagogy and routines. All four focus group participants shared their intention and interest in implementing breaks, after they experienced firsthand the benefits for learning and personal wellness in the course. An area of future research could be to follow these participants into their careers and see how the implementation of breaks in their classrooms is or is not progressing.

While the findings strongly support the implementation of breaks during cognitively demanding tasks, such as a higher education course, the duration of a break is an area to explore further as well as the difference(s) between structured and unstructured breaks. Research on structured, active breaks bumps up against the findings of this study which implemented unstructured breaks. This further research could better inform teachers in K–12 classrooms because their work often requires more time constraints, increased supervision duties, and criticism from parents, administrators, and/or colleagues. It is not lost on the researcher that they had a privilege of implementing this intervention with adult learners who did not require supervision during breaks.

Offering 30-minute breaks during a three-hour higher education class was a realistic and effective pedagogical practice to support student wellbeing and increase vigor and vigilance. However, this practice does pose challenges for higher education settings. Taking time out for a break may directly bump up against a culture of productivity and busy-ness. Ensuring that the culture of a department, the instructors, students, and administrators or leaders are focused on wellness is no small feat. For example, a rigid academic timetable or schedule can be a barrier to overcome within a program or department. Using research and literature as leverage to educate colleagues and higher education students about the benefits of taking effective breaks during demanding learning tasks is one step toward creating a supportive culture of wellness. Sharing this work with policy makers is also vital. In class, providing time and space for an unstructured break, modeled by the teacher, instructor, or leader, is a key component to decrease the perception of wasting time on a break. With these aspects in mind, simply encouraging instead of discouraging colleagues to implement longer than usual breaks, such as 30 minutes, could be another key to supporting wellness regardless of the field or discipline. This accessible and cost-effective wellness practice could be implemented in various disciplines across many higher education settings.

#### ACKNOWLEDGMENT

I thank my colleagues for encouraging this work and Cherie for her SoTL mentorship over the years. This project received funding from the Mokaiiks Centre for Scholarship of Teaching and Learning at Mount Royal University through the SoTL Development Program.

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## APPENDIX A

**Data Collection Methods**

Who and When	Data Collection Tool	Purpose
All 70 students enrolled in the Teacher Wellness course  During the semester	Pre course questionnaire  (start of first day of class)	Course content + learning about wellness strategies for the self and for students.
	Post course questionnaire  (start of last day of class)	
	Weekly Break Log  (every week in class; halfway through three hour class)	
Consenting participants (N = 40)  Consent collected by the RA on the final day of the course	Pre course questionnaire  (Anonymized by RA)	Used to inform the research questions regarding:  -perceived value of a break -typical activity/behaviour during breaks -what influences this choice -any change from pre to post
	Post course questionnaire  (Anonymized by RA)	
	Weekly Break Log  (Anonymized by RA)	-What did you do? -Why did you choose this? -How refreshed do you feel after the break? (vigilance) -How motivated to continue learning do you feel after the break? (vigor)
Consenting participants (n = 4)  Consent collected by the RA on the final day of the course  <i>*Focus group took place in February following the grade appeal deadline</i>	Focus Group (60 minutes)  Semi-Structured using Guiding Questions (Appendix B) + Confidentiality Agreement	Forward-looking:  -seeking to understand if/how participants may employ breaks in their own classrooms -discuss challenges and opportunities  -Table 2

## APPENDIX B

**Semi-Structured Focus Group: Guiding Questions**

Welcome and thank you for coming today. The voice recordings will be anonymized to the best of our ability, knowing that there are four people here. Please speak honestly and freely.

\*we will record this conversation/transcribe it

\*\*please fill out this confidentiality agreement (hand out 2x paper copies of confidentiality agreement; collect once signed; participants keep one copy)

[PI to start] (10 mins)

- 1) The purpose or objective of this time together is to dig a bit deeper into your perceptions of taking breaks during class and how or if you might continue this practice moving forward.
  - a) What do you recall about taking breaks during class last semester?
    - i) What did you mainly spend your time doing?
    - ii) Did you feel refreshed or more motivated to learn upon returning?
      - (1) Why? Not?
  - b) As a teacher candidate, you will have your own classroom soon. Do you think taking breaks transfers to students in your own classroom?
    - i) Why/not?

[RA or PI] (35 mins)

- c) What opportunities do you see regarding breaks in your own classroom?
  - i) How do you think your students will react?
  - ii) What kinds of things do you imagine doing during break time?
  - iii) Is there learning that could take place or is unstructured break time better? (prompt: should students have a task to do during a break or is an unstructured break appropriate?)
  - iv) Elementary level school: what is an optimal break time?
  - v) How can YOU take a break during the day (away from students)?
- d) What challenges do you anticipate (or have you experienced) regarding breaks in K-12 settings?
- e) Do you foresee yourself valuing breaks in your everyday life?

## APPENDIX C

### **Theme: Increased Quality of Learning**

Hope

If we incorporated breaks, would it be more beneficial to have something like math or English at the end of the day because they're more "on" . . . you're not wasting that last hour of the day . . . So if you put a break in there, would they learn more?

Ava

By the end of it, we just kind of, like, get let out early, because I think everybody's just like, just done, and the professor kind of notices that. So I wonder if we would be more productive and get more out of the class. If there was that time set aside kind of in the middle, rather than just like—obviously, you know, on a Friday afternoon it's nice to kind of leave early—but, you know, I wonder if we would be more productive if there was that time set aside?

Carly

I feel like I'm just more productive in general when I take more breaks, even though I felt like I was more productive when I was just working but then I was exhausted. So now I feel, like, less tired afterwards and more ready to go after I take a break.

Aubrey

They need that mental break like they can't be on all the time. And it makes for more chaos. The more on they have to be the more you notice like even like you said with the [indoor] recess . . . Like they're stuck in the classroom and you can just tell like their level goes up throughout the day. Because they don't have that time. You know, it's outside. It's different. It's different than sitting in the class and just being in the same space and like sitting with the same people and playing with the same whatever.

## APPENDIX D

### **Theme: Considering the Logistics of a Break**

Hope

. . . you often plan your day in a way that's like okay, I content-heavy fill my morning and my afternoon is more relaxed because I don't think they can be able to learn the same amount. So if you put a break in there, would they learn more? And that's like, it's a question. I'd think they would.

Ava

I think I have to like force myself to like, not be on my phone like go outside like take my dog for a walk something that that's kind of what I've just learned about myself because maybe for some people you know, they can I don't know go on their phone and then they feel ready to get back to work but I don't feel that.

Aubrey and Ava

Aubrey described ". . . having the option to just do whatever they want if they just want to sit in their desk and do absolutely nothing for that 10 minutes or 15 minutes, whatever amount of time" could be a simple method to provide choice. Hope added that after a high energy activity such as

physical education or recess, teachers could “. . . [create] a break within your transitions” to strategically bring down the energy level in the room. Ava highlighted that a break cannot be confused with a task, “. . . like daily physical activity [DPA], like I know they get that but they’re kind of just being like, made to do something and I think it’s different than a break where they can have some sort of choice.”

## APPENDIX E

### Theme: Modeling

#### Aubrey 1

In grade two they have, like my class has 20 minutes right after recess where they’re supposed to like, read to self. So if they can do that, why can’t they have a break where like, if you’re reading to self, while they’re reading to self, it’s like modeling, right?

#### Hope

When you ask students to take a break, they’ll almost incorporate you into their break. . . kind of like them embracing you into their break. And I think that’s a positive way for you to, like, remember, like they’re watching you all the time. Remember to take your breaks, and if not, they’ll make you take your break.

#### Aubrey 2

I didn’t feel that . . . sense of dread . . . going to your class. It wasn’t like, ‘oh, yeah, I got to prep myself for three hour classes.’ . . . it didn’t feel like that right? . . . like when you’re going in in the morning, same thing, like you just kind of splitting it up. So it’s like, you almost have two classes in the morning, because you have that break.

#### Aubrey 3

I think small kids, I mean, adults too, but we thrive on routine . . . I think if you start at the beginning and you kind of like, make it a thing every day, part of your day . . . it’s just how the class is conducted, right?

## APPENDIX F

### Theme: Understanding a Life Skill

#### Aubrey

. . . it’s important to like, tell [students in your classroom] why you’re doing it doesn’t have to be super complicated, an explanation of why like, they’ll understand. Like, if we give them the reason why we’re gonna be taking a break, and I think that it might make them want to kind of be into it a bit more than just like, “you take a break now.”

#### Aubrey and Hope

“Like you explain to hem ideas of what they can do exactly,” (Aubrey) and “. . . if that break is [depicted] in a positive way that they enjoy, then maybe it’s not that super, like, bouncing off the walls. It’s, ‘I’m doing something I enjoy whether it’s drawing or playing with blocks or coloring’ and then it comes back to that aspect of like, you set your norms in your classroom like after a break.” (Hope)

Hope

... allowing the students to make choices but also at the start of the year, maybe implementing like, hey, remember when we use our breaks, we have to use them maybe efficiently or to the best of your ability like what do you think that looks like? If you need to go run around the halls? Go run around the halls, like as an adult, you would never question them.

## APPENDIX G

### Theme: Tension Between Barriers and Benefits

Hope

When you look at the good teachers, they tend to make sure that their transitions from like subject to subject, incorporate some sort of movement break or some sort of, like, breathing task and then they're like, more focused when they go back.

Aubrey

... trying to cram every little thing into the day and the day just flies by and you're just super busy ... [teachers are] just trying to cram in as much of the curriculum as they can throughout the day ... And I don't know I don't know going into teaching if [breaks are] going to be something we're able to incorporate.

Carly

... there's like no break all morning long and it just feels so long. And you can just, like, tell that the kids, like, attention just goes down. And then in the afternoon, like they're just like not there because they spent all their energy in the morning. So I think a break would be good to like separate it.



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