

Enjoyment and Belonging at Recess: A Mixed-Methods Study of Children's Views of Recess and Responses to a Recess Intervention

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Abstract

School climate has long been understood to influence student success, yet the social climate and playspace of recess is often overlooked in overall school improvement efforts. The Recess Project is a collaborative action research project that aims to improve the social climate of recess through fostering a sense of belonging and enjoyment. We report a mixed-methods exploratory evaluation of the project based on survey data from 784 students in grades 4-8. Quantitative analysis compared scores for belonging and enjoyment between children who attended *Recess Project* (RP) schools and those who did not No Recess Project/NRP. The RP group reported more enjoyment than the NRP group, while sense of *belonging* was not significantly different between groups. *Belonging* and *positive affect* were positively associated with *enjoyment* scores in both groups, however, these associations were stronger in the RP group. Qualitative analyses revealed children enjoyed recess for the opportunity to socialise and to have autonomy over their activities. Children who did not enjoy recess reported boredom, bad weather and experiences of victimisation. We discuss the implications for further research and future work on improving the quality of the social climate of recess.

Introduction

The unrealized potential of recess

Previous research defines recess as a “form of a break (either indoor or outdoor) from academic work in which children are free to choose and engage in an activity on their own terms” (Pellegrini & Bjorklund, 1997. p. 35). These periodic breaks from class instruction are thought to relieve stress so that children return to class refreshed and ready to learn, resulting in stronger academic performances (Dills, Morgan, & Rothhoff, 2011). These breaks are also thought to be a necessary time for children to socialize and engage in collaborative play, providing them with opportunity to develop and refine their social skills (Center for Disease Control, 2010; Gibson, Hussain, Holsgrove, Adams, & Green, 2011; McNamara, Colley, & Franklin, 2015; McNamara, Vantaaja, Dunseith, & Franklin, 2014; Pellegrini, Blatchford, Kato, & Baines, 2004).

Moreover, a considerable body of evidence indicates that opportunities for social interaction and collaborative play are critically necessary for healthy life trajectories (Umberson & Karas Montez, 2010). It is well documented, for instance, that supportive friendships, collaborative play, and feelings of social connectedness positively affect mental health, health behaviour and physical health outcomes throughout the lifespan (Berkman & Glass, 2000). Despite the potential benefits of recess as an opportunity for stress relief and social play, some research indicates that it can sometimes be a time of the school day that is overlooked, unsupported, and challenged by troublesome social patterns such as conflict, exclusion, rejection, bullying and victimization (Doll, Murphy, & Song, 2003; Craig, Pepler, & Atlas, 2000; London, Westrich, Stokes-Guinan, & McLaughlin, 2015; McNamara, Lodewyk, & Franklin, 2018; McNamara & Walker, 2018; McNamara, Lakman, Spadafora, Lodewyk, & Walker, 2018; McNamara et al., 2015; McNamara et al., 2014; McNamara, 2013; Vallaincourt, et al, 2010; Craig & Pepler, 1997).

Many of these challenges seem to stem from a lack of attention to the quality of the “play offer” made by schools. Too often, recess is seen as an inconvenience or irrelevance rather than a rich and playful social learning opportunity. McNamara, Colley, and Franklin (2015) analyzed the existing literature on recess and found that many of the challenges that children experience are triggered by an array of factors such as minimal supervision, crowded spaces, restricted equipment, and few activity options. Furthermore, safety concerns and fears of injury often manifest in overly strict rules and prohibitions on school playgrounds to such a degree that they inhibit opportunities for physically active play, creativity and enjoyment (Tremblay et al., 2015). Such challenges not only limit the necessary developmental benefits but can have negative consequences for children overall (McNamara et al., 2015; McNamara et al., 2018).

Research from the field of social neuroscience, for example, indicates that a lack of social connections and negative interactions (exclusion and isolation, for instance) can have detrimental effects on children’s overall well-being and mortality risk (Eisenberger & Cole, 2012). Children who lack supportive peer relationships are at risk for social, emotional and/or behavioral problems such as anxiety, depression or aggression that can cumulatively influences children’s mental health and engagement in school (Fredericks, Blumenfeld, & Paris, 2004; Pellegrini et al., 2004; Ladd, Ettekal, & Kochendorfer-Ladd, 2017). It is important to note that approximately 10-20% of children and youth today experience mental health issues such as anxiety and depression (Kieling et al., 2011) of which psychosocial stress is a known contributor (Umberson & Karas Montez, 2010). When children experience mental health issues, especially at a young age, they are particularly vulnerable to isolation and loneliness. Such negative feelings can set in motion

maladaptive relational patterns that can further escalate psychosocial stress and accelerate the progression of mental illness (Eisenberger & Cole, 2012).

To elaborate, strained and conflicted social interactions can trigger a series of physiological responses that release negative hormones throughout the body. Excess hormones can alter the activity of the neural, endocrine, metabolic, and lymphatic systems and influence other physiological mechanisms in the body. This activity can then disrupt the proper functioning of cells and compromise the immune system, initiating the progression of diseases such as anxiety disorders, depression, diabetes and atherosclerosis (Eisenberger & Cole, 2012; McEwen, 2008). Furthermore, chronic social stress often compromises an individual's coping mechanism, leaving them vulnerable to maladaptive coping strategies (smoking, overeating, drinking for example) that can result in a chronic feedback loop of heightened stress and poor health (McEwen, 2008). Thus the cumulative effects of daily social experiences can deepen behaviour patterns and influence lifelong health trajectories (Umberson & Karas Montez, 2012).

While far from the only context relevant for building such skills, it is clear that the social skills and friendships built during daily recess may have repercussions far beyond the playground. This is particularly the case amid reports of increasing structure over children's activities and out of school socialization outside of organized clubs. Indeed, the World Health Organization (1997) encouraged schools to pay closer attention to students' happiness, social connectedness, and autonomy, as each contributes to various health benefits. Recess is an important step to achieving this, however, there is little in the scholarly literature that views recess as a unit of analysis for study and more research is necessary to understand the ways in which the organizational factors and sociocultural context might promote or impede an environment that supports playful, meaningful and enjoyable social interaction (Gibson, Cornell, & Gill, 2017; McNamara et al., 2015).

The evolution and implementation of The Recess Project

The Recess Project is an ongoing, collaborative, action research project situated within schools in Ontario, Canada. It was designed to leverage university resources and community partnerships in order to create a recess that promotes friendships, inclusion, compassion, and physically active play. The project is essentially an iterative, dynamic process of inquiry, planning, action, and reflection among students, teachers, university researchers, and university students. *The Recess Project* was designed with a simple underpinning philosophy: that with more options for equipment and play materials and more scaffolded opportunities for socialization, children are more likely to enjoy recess and experience associated benefits (Hyndman, Benson, Ullah, & Telford, 2014; McNamara et al., 2014; London et al., 2015). However, only a small number of studies (Baines & Blatchford, 2010; Gibson et al., 2017; Heravi, Gibson, Hailes, & Skuse, 2018; McNamara et al., 2014; McNamara, 2013) have examined what children needed during recess and assessed the ways in which this setting can be modified to make it more beneficial for them. Moreover, there is currently a lack of research that examines the predictors for recess *enjoyment*, which, we hypothesize, is a prerequisite for enabling children to make the most of the informal learning opportunities and play.

Moreover, *The Recess Project* was intended to support individual differences. Children experience recess differently. Each child comes to the school environment with a unique set of experiences, skills and attributes. While some children appear to enjoy recess, others appear to require more support in navigating the setting (McNamara, Lodewyk, & Franklin, 2018;

McNamara & Walker, 2018; McNamara, Lakman, Spadafora, Lodewyk, & Walker, 2018). Thus *The Recess Project* was designed to improve the range as well the quality of play opportunities on offer to children.

Specifically, *The Recess Project* provides children with an array of options that range from enriched areas for creative, imaginative, unstructured free play to organized, scaffolded activities (McNamara & Walker, 2018; McNamara, Vantaaja, Dunseith, & Franklin, 2014; McNamara, 2013). The range of organized activities might include, for example, skipping, yoga, Frisbee, soccer, chalking, soccer-baseball, basketball, tag and dodgeball and take place in designated areas or zones. Further, activities such as crafts, computers, and jewellery are periodically provided to act as a catalyst for friendships. These activities are offered on a rotating schedule throughout the week and are guided by well-trained university students (both paid and volunteer). Certified teachers are hired (full time) and trained to support the university student coordinators in 5 schools. All grade school students from grades 4-8 have the option to volunteer as a 'Junior Recess Leader'. These students are trained and guided as they support the play zones for the younger grades. The organization and variety allows opportunities for all children to initiate social connections, to be active and playful, and to be protected from the detrimental effects of chronic victimization and exclusion (McNamara, Vantaaja, Dunseith, & Franklin, 2014).

In the current implementation model, every recess for the duration of the school year is supported with at least one coordinator. McNamara, Vantaaja, Dunseith, & Franklin (2014) described how *The Recess Project* was piloted previously in four schools and described how the patterns of behaviour improved during recess. Importantly, the children reported considerably less social conflict. They were more engaged in positive interactions and gained more friendships and as a result they indicated that they felt more connected, more accepted, safer and happier. We have yet to examine whether differences exist between schools with *The Recess Project* and those without, and hence, this exploratory comparison is the purpose for our current study.

Exploring Belonging and Enjoyment During Recess

In the study described below, we had an opportunity to compare the differences between children in schools that were part of *The Recess Project* and schools that did not have any recess intervention. We were especially interested in exploring two core constructs, qualitatively and quantitatively: enjoyment and belonging. The conceptual framework of *belongingness* (Baumeister & Leary, 1995) was considered apposite because it is rooted in feelings of connection, acceptance, and inclusion and it also speaks to the broader health outcomes for social connectedness as mentioned above. As well, a sense of belonging has long been reported to influence students' overall development and educational outcomes in school settings (Phan, 2013; Osterman, 2000) and to reduce bullying behaviour. Belongingness therefore provides an established theoretical lens from which to view the social setting of recess. Our second core construct, *enjoyment*, is one that children have told us is very important in their experiences of recess (McNamara & Walker, 2018; McNamara, Vantaaja, Dunseith, & Franklin, 2014). *Enjoyment* is linked to the concept of belongingness as research has shown that *belonging* is associated with positive emotions, including pleasure and fulfillment. Conversely, experiences of rejection, victimisation and exclusion give rise to anxiety and loneliness (Gere & Macdonald, 2010). We suspected that enjoyment of recess and engagement levels would be higher in the schools with *The Recess Project* compared to *No Recess Project* schools. Since the coordinators

and junior recess leaders work together to change the context of recess by offering equipment and more stations for game options, we also suspected that students in *The Recess Project* schools would feel more supported and a higher sense of *enjoyment* and *belonging* than schools without it.

Our specific research questions were therefore as follows:

- 1 Is recess *enjoyment* higher in Recess Project (RP) schools compared to schools with No Recess Project (NRP)?
- 2 Is a sense of *belonging* higher in RP schools compared to NRP schools?
- 3 Do other predictors (affect, victimization) apart from *Recess Project* participation explain variance in children's *enjoyment* and *belonging* scores?
- 4 What do student's qualitative descriptions of the recess setting reveal about enjoyment?

Methods

Epistemology

For this research we adopted the interpretive stance of *pragmatism* (Biesta, 2010). Pragmatism is not committed to any one particular philosophy, rather, it emphasizes a practical, problem-solving application to research. The underlying assumption is that the best research methods are those that help most effectively understand the problem, the circumstances, or the research questions. It allows freedom to work with situational constraints and engage research in the most practical way possible. In our case, anonymity was important to the students. Therefore, an anonymous forum would provide us with more reliable information than, for example, in person interviews. We used an anonymous online survey specific to recess, a survey that contains a variety of questions, both quantitative and qualitative (see McNamara, Lodewyk, and Franklin, 2018). We included open-ended questions in the survey to provide added depth to our broader research questions and help us better appreciate the complexity of the situation from the children's perspectives.

Sampling

This study was a part of a larger research project that assessed children's experiences on school playgrounds. The sample was drawn from 14 elementary schools in a school district in southern Ontario. The participating schools' enrolments ranged from 150 to 400 and included kindergarten through grade eight students. All schools were considered within economically stressed neighbourhoods. We selected these schools because lower socioeconomic status (SES) is associated with risk factors that could negatively affect children's development and academic progress (Keating & Hertzman, 1999) and could benefit from intervention. This type of intentional sampling was chosen as it is often used as a way to capture the daily experiences of the participants in their typical setting (Mays & Pope, 1995). While seven schools were involved in an ongoing action research collaboration and implementation of *The Recess Project*, the other seven schools in the present study were not.

Procedure

Upon ethical clearance from both the research ethics committee of the university and school board, as well as approval from each of the principals, consent forms were distributed to parents for all students from grades 4 to 8. Only students with signed consent forms were asked to meet at their school's computer labs to complete the survey online. Research assistants were available

on site to assist with survey completion as needed. Survey completion took place at the end of the school year. Students took between 15-30 minutes to complete the questionnaire.

Participants

A total of 784 students completed the online survey. Of these, 346 were males (46.6%) and 397 were females (53.4%). All students were from grades four to eight. For the comparison analysis, participants were split into two samples with seven schools experiencing the Recess Project (RP, $n = 418$) and seven schools not involved in *The Recess Project* (NRP, $n = 325$). There were 44 participants (5.9%) that answered ‘yes’ when asked if they have a disability.

Measures

We used a survey designed specifically for understanding children’s experiences at recess (McNamara, Lodewyk, & Franklin, 2018). The survey includes established scales to measure core outcomes of *enjoyment* and *belonging*, as well as discrete items to tap other topics of interest. Furthermore, open-ended questions allowed for more elaborate responses and qualitative descriptions. In addition, discrete items assess the recess setting (equipment availability, supervision, activity options). We work collaboratively with students, and they have recommended we design the survey to be anonymous so as to reveal their most authentic experiences without worrying about social consequences. As such, the survey was presented as an online, anonymous 36-item questionnaire via Survey Monkey (surveymonkey.com). Demographic questions related to students’ sex, grade, school’s name and city, as well as presence of a disability were included in the questionnaire. The quantitative measures derived from the survey are as follows:

Key outcome 1: Enjoyment. Students’ enjoyment of recess was assessed using two items (e.g. “I enjoy recess” and “I like recess”) that have been used previously in research of enjoyment across settings (e.g. Dishman et al., 2005). The items used a 5-point scale (1 = Never to 5 = All the time) with higher scores reflecting greater enjoyment. Cronbach’s alpha for the scale was .77.

Key outcome 2: Belongingness. Participants’ feelings of belongingness during recess were assessed by five items (i.e., “I can be myself during recess”, “I have friends during recess”, “I get along with others”, etc.). This scale was rated on a 5-point scale (1 = Never to 5 = All the time), where higher scores signified greater sense of belongingness. This scale was derived from previous scales (Asher, Hymel & Renshaw, 1984; Leary, Kelly, Cottrell & Schreindorfer, 2005) and has been used previously in (McNamara, Lodewyk, and Franklin, 2018). The Cronbach’s alpha for belongingness in this study was .77.

Predictor variables

Victimization. Adapted from Volk and Lagzdins (2009), three questions in the survey assessed participants’ physical, verbal, and social victimization experiences (“I have been hit, kicked, or pushed by others on purpose during recess”; “During recess, I have been teased [made fun of] because of what I believe, look like, or say”; and, “During recess, it seems like others ignore and exclude me on purpose”). A 5-point response scale (1 = Never to 5 = All the time) was used wherein higher scores indicated more victimization. Cronbach’s alpha for this scale was .76.

Positive and negative affect. The survey includes a shortened version of Watson, Clark and Tellegan’s scale (1988) of positive and negative affect. Participants responded to questions on a 5-point scale that rated their feelings during recess (1 = Never to 5 = All the time). The items

included five affective states for positive affect (happy, safe, confident, accepted, like I belong, excited) and five for negative affect (nervous, embarrassed, bored, anxious, lonely). Higher scores indicated a stronger affect. A composite for positive and negative affect was constructed, each with a sample that produced a Cronbach's alpha of .75 (positive affect) and .71 (negative affect).

Qualitative open-ended items

The survey also contains open-ended questions intended to encourage detailed, descriptive information from the students with respect to their experiences during recess. This complementary data can help us better appreciate the complexity of the situation and provide direction for further research. We selected four open-ended questions that we felt would help us better understand the role of enjoyment in the context of recess. Specifically, these items requested information from the students about their 1) *most* and 2) *least favourite* time of day and asked them to describe *why* they made their selections, as well as descriptions about the things they 3) *like* and 4) *don't like* about recess.

Data Analysis

Quantitative analyses: Statistical analyses were performed using IBM SPSS version 22. Exploration of the data was performed to ensure that the assumptions underlying univariate statistics were met (i.e., investigating mean, standard deviations, minimum and maximum and missing values, skewness, kurtosis, and outliers). In line with recommendations (e.g. Tabachnick & Fidell, 2007), 20 participants with 50% or more of missing data across multiple variables were removed from the sample as were 21 outliers identified using Mahalanobis distance values surpassing chi-square critical values set at $p = .001$. This resulted in a final sample size of 743. To ensure multivariate assumptions were met, all variables were examined for and met standards for homoscedasticity, linearity, and normality. To assess relations among the variables, bivariate Pearson correlations were computed which revealed no signs of multi-collinearity (Tabachnick & Fidell, 2007). To test our hypotheses that the Key Outcomes would vary as a function of group (RP vs NRP, RQs 1&2) we used multiple regression with *enjoyment* and *belonging* as the dependent variables, and group as a predictor. We then added additional predictors to this model, including Victimization and Affect.

Qualitative analyses: To determine what students' qualitative comments revealed about their experiences during school recess, we coded the qualitative data in two major cycles following the guidelines of Miles, Huberman, & Saldana, (2014). Each response was reviewed independently by the lead researcher and two graduate student research assistants. Each response was coded for key words, trends, themes, or ideas using an in-vivo coding method (the participants' exact words or phrases) to preserve the students' voices. We then applied descriptive codes and created an operative coding scheme. Using the new coding scheme, we coded the responses a second time on uncoded data. The students' responses to the open-ended questions were brief (approximately 3-5 words) and as a result there was unanimous agreement among the coders. In the second cycle, we grouped the responses into pattern codes (Miles, Huberman & Saldana, 2014; Creswell & Plano Clark, 2011). This process was then repeated for each of the questions and the pattern codes were tabled in a matrix display to visually represent the data as conceptual clusters. We then created sub-categories to expand and elaborate on our definitions and link them to our research questions. As a result, we were able to more effectively integrate the quantitative and qualitative data (Creswell & Plano Clark, 2011).

Results

Quantitative results

Table 1. *Descriptive statistics for each variable by group (RP, NRP and All)*

Variable	Recess Project		No Recess Project		All	
	Mean (s.d.)	Min- Max	Mean (s.d.)	Min- Max	Mean (s.d.)	Min- Max
Enjoyment	4.22(0.7)	1-5	4.11(0.8)	1-5	4.16(0.7)	1-5
Belonging	3.74(0.7)	1-5	3.70(0.7)	1-5	3.72(0.7)	1.25-5
Positive affect	3.97(0.7)	1.4-5	3.97(0.7)	1.6-5	3.97(0.7)	1.4-5
Negative affect	1.99(0.7)	1-4.6	2.02(0.7)	1-5	2.01(0.7)	1-5
Victimization	1.97(0.9)	1-5	1.95(0.9)	1-5	1.96(0.9)	1-5

Students generally reported high *enjoyment*, moderate *positive affect*, *belonging*, and low levels of *negative affect* and *victimization*. More specifically, the proportions (%) of students in the RP (and non-RP) groups reporting ‘all’ or ‘most of the time’ were: 81.6 (78.5) for *enjoyment*, 60.4 (60.0) for *positive affect*, 1.0 (1.2) for *negative affect*, 42.1 (42.4) for *belonging*, and, 4.1 (3.4) for *victimization*. Relationships were as theoretically expected in both groups. In other words, *enjoyment*, *positive affect*, and, *belongingness* were positively and significantly related ($p < .01$). Each of these constructs also related negatively to both *negative affect* and *victimization*. *Positive affect* and *belongingness* related the most in both the RP ($r = .64$) and NRP ($r = .66$) groups.

Table 2. *Bivariate correlations by group*

Variable	1	2	3	4	5
1.Enj	-	.61**	-.45**	.52**	-.28**
2.PA	.56**	-	-.48**	.64**	-.39**
3.NA	-.32**	-.44**	-	-.42**	.53**
4.Belong	.44**	.66**	-.40**	-	-.43**
5.Victim	-.20**	-.40**	.54**	-.34**	-

Note. No Recess Project is Lower Diagonal, Recess Project is Upper Diagonal; PA = Positive Affect; NA = Negative Affect; Belong = Belongingness; Victim = Victimization; Enj = Enjoyment.

* $p < .01$. ** $p < .001$.

To address research questions 1 and 2, predicting significant differences in *enjoyment* and *belonging* between RP and NRP groups, we ran a multiple regression model with RP/NRP as a categorical predictor. To answer our research questions about additional predictors of these outcomes, we constructed a hierarchical model, with RPvsNRP in step 1, and *positive/negative affect* and *victimisation* in step 2. Results are summarised in Tables 3 and 4.

Table 3. *Hierarchical linear regression predicting enjoyment*

	b	SE B	β	<i>p</i>	<i>R</i> ²
Step 1					
Constant	4.33	0.084		<i>p</i> = .001	
RP(1) or NRP(0)	-0.11	0.056	-.073	<i>p</i> = .048	.005
Step 2					
Constant	2.47				
RP(1) or NRP(0)	-0.10	0.044	-.068	<i>p</i> = .021	
Pos Affect	0.54	0.035	.537	<i>p</i> = .001	
Neg Affect	-0.20	0.40	-.187	<i>p</i> = .001	
Victimisation	0.051	0.30	.060	<i>p</i> = .090	.373

Table 3 shows a small but significant association between participation in the Recess Project and increased reported *enjoyment*. However, this accounted for less than 1% of variance in *enjoyment* scores. When the other predictors were added to the model (Step 2), the explained variance in *enjoyment* increased to 37%. In this model, the child's *positive affect* was positively associated with *enjoyment*, while *negative affect* and non-participation in recess project were negatively associated with *enjoyment*. Victimisation scores were not significantly related to *enjoyment* outcomes.

Table 4. *Hierarchical linear regression predicting belonging*

	b	SE B	β	<i>p</i>	<i>R</i> ²
Step 1					
Constant	4.33	0.076		<i>p</i> = .001	
RP(1) or NRP(0)	-0.03	0.050	-.024	<i>p</i> = .512	.001
Step 2					
Constant	2.07			<i>p</i> = .001	
RP(1) or NRP(0)	-0.03	0.037	-.023	<i>p</i> = .403	
Pos Affect	0.52	0.029	.561	<i>p</i> = .001	
Neg Affect	-0.08	0.034	-0.086	<i>p</i> = .013	
Victimisation	-0.09	0.025	-0.126	<i>p</i> = .001	.450

For *belonging*, there was no significant effect of participation in the Recess Project in either Step 1 or 2 of the model (see Table 4.). Other predictors were related to *belonging* in the way we predicted, with *positive affect* positively associated with *belonging* scores, and *negative affect* and *victimisation* negatively associated with *belonging* scores.

Regarding research question four, 44 children self-reported a disability. Those reporting disability had lower *enjoyment* scores (mean=3.9, s.d.=1.01) than those who did not (mean=4.18, s.d.=0.7). This difference was statistically significant: $F(1, 741) = 5.073, p = .025$. Likewise children reporting disability had lower *belonging* scores (mean=3.49, s.d.=0.77) compared to peers not reporting disability (mean=3.73, s.d.=0.66). Again this difference was statistically significant: $F(1, 734) = 5.382, p = .021$. However, no significant interaction between recess project participation and reported disability was found for either outcome measure.

In summary, there was a significant difference in *enjoyment* between the two groups. Further, *belonging* and *positive affect* were positively and significantly associated with *enjoyment*. Therefore, for the qualitative analysis, we wanted to further explore the students' open-ended responses that might reveal more descriptive information related to *enjoyment*, *belonging*, and/or *affect*. Such information is intended to be exploratory and to provide direction for future inquiry or intervention efforts.

Qualitative results

To reiterate, we used four open-ended questions from the survey for this analysis. Specifically, these items requested information from the students about the students' 1) *most* and 2) *least favourite* time of day and asked them to describe *why* they made their selections, as well as descriptions about the things they 3) *like* and 4) *don't like* about recess. After coding and conducting a context analysis of these open-ended responses, we arrived at five broad themes that suggest linkages to *enjoyment*, *belonging*, and/or *affect*. For this analysis, we did not explicitly compare the two groups (RP and NRP) because we were primarily interested in exploring their experiences broadly and learning more about recess enjoyment.

Friendships and socialization. The opportunity to be with friends was clearly a meaningful component of recess and a favourite part of the school day. Overall, and overwhelmingly, the students' responses centred around *relationships* and *collaborative play*. Students indicated that they enjoyed recess because it gave them "a chance to be with their friends". Friendships, they indicated, provide them with a context to play fun games or to just enjoy being together, as exemplified by the selection of comments here: "I like to play fun games with my friends" (Boy, Grade 5), "Hanging out with my friends and playing sports" (Boy, Grade 7), "outdoor recess is my favorite because you get to play with your friends" (Girl, Grade 4), "because my friends and i get in a group and we talk" (Girl, Grade 6), "what i like about recess is that i get to spend time with my friends and play with them" (Boy, Grade 6), and "recess is always more fun when you have someone to play with" (Girl, Grade 4).

Conversely, then, recess was clearly an uncomfortable time of day for students who do not have friends during recess. These students indicated that loneliness and victimization make it their least favourite time of the school day. For example, "nobody wants to hang out with me" (Boy, Grade 5), "I get discluded" (Girl, Grade 5), "I have no one to play with" (Boy, Grade 6), "because I get bullied and i cant stop them" (Boy, Grade 4), "Everyone privite (private) talks

outside and I'm left alone. Also I feel like they are talking about me” (Girl, Grade 5), *“Bullies, People excluding you, Having no one to play with, Being teased”* (Boy, Grade 4), and *“if my friends are away and I don't have anyone to hangout with and I feel left out and really board and lonely. also I really hate it what people are really rude and mean at recess”* (Girl, Grade 8).

Experiencing social problems such as bullying. Not surprisingly, then, another clear theme was that children indicated a dislike for experiencing and witnessing social problems such as exclusion, bullying, teasing, and fighting. To them, it wasted and undermined their limited time in the day to have fun with their friends. The students noted a general climate of conflict, *“Kids swear, push and shove, get into fist fights and verbal debates over games* (Boy, Grade 6), *“people cheat in games, people bully and shove and such, and dont include others in thier games”* (Boy, Grade 6), *“arguing fighting not following rules* (Boy, Grade 5), *“when people talk bad about other people when people don't include other people”* (Girl, Grade 6), *“Fights, Arguments”* (Boy, Grade 6), *“some times people don't enclude eatch other so sometimes I don't have fun”* (Boy, Grade 5), *“sometimes people are mean to you people don't include others”* (Girl, Grade 4), and *“me and my friends fight sometimes, recess is a time apparently a good time to fight”* (Girl, Grade 4). Furthermore, the students, not surprisingly, noted that they specifically did not like experiencing or witnessing bullying and exclusion, which appears to be a relatively routine behaviour during recess: *“when i get bullied”* (Boy, Grade 4), *“geting bullied”* (Boy, Grade 4), *“bullies”* (Boy, Grade 8), *“I usually get bullied”* (Girl, Grade 5), *“some times people exclude me”* (Boy, Grade 4), *“they bully kids 3 to 5 years younger than them and hit them and shove them”* (Boy, Grade 8), *“Kids are quite rude during recess and they will go around teasing innocent people who haven't done anything wrong and do not deserved to be teased”* (Girl, Grade 8), *“I don't like how certain kids are alone and they have no one to talk to”* (Girl, Grade 7), and *“People leaving other people out of a game”* (Boy, Grade 8).

Having freedom, choice. Another theme that emerged was that students felt it was important to have a choice in their activities. Students mentioned that they favoured recess because it gave them freedom to choose what they wanted to do and to play fun games that were meaningful to them. For example, they reported, *“because in gym you dont usally get to do what you want and sometimes the teachers choose kids to suggest games to play and sometimes the games they choose are not fun”* (Girl, Grade 5), *“because you get to play outside and do almost any game or thing you want and you get a free period sort of”* (Boy, Grade 6), *“because i like being active but in gym (or PE) we do boring activities like danse or “teambuilding activities” they are not fun and i just want to play fun games like dodgeball”* (Boy, Grade 8), and *“because we get to run around and have physical activity and have fun without being strictly monitored”* (Boy, Grade 7). Likewise, students noted that they did not like the strict rules that were placed on them because it limited their choice of options: *“We can't play mini-sticks anymore”* (Boy, Grade 7), *“when the teachers are overprotective”* (Boy, Grade 6), *“I like it when we can use everything without teachers saying we cant do certan things outside on the play equipment”* (Boy, Grade 7), *“That we can't play tag on the playground”* (Boy, Grade 6), *“that we can't really do stuff on the PLAY ground like run play tag games or climb”* (Boy, Grade 7) *“If a 7 or 8 uses the playground they get detention or even suspension”* (Boy, Grade 7), *“they are over protective”* (Boy, Grade 6), *“we have to stay on the tarmac”* (Girl, Grade 5), *“we have a ‘WalkandTalk rule’ no running ever”* (Boy, Grade 7), and *“The grade 8's that I hang out with including me always get in trouble for trying to have fun and we aren't doing anything wrong but the supervisors are extremely annoying about that stuff. It pisses me off”* (Boy, Grade 8).

Availability of equipment or activities. Another prominent theme that appears to influence children's enjoyment of recess was the availability of equipment and activities. "I enjoy playing football and soccer, I also enjoy building snow forts in the winter" (Boy, Grade 7), "there's lots of out side activeties" (Boy, Grade 6), "Mini-Sticks we're enjoyable but now they are banned" (Boy, Grade 7), "...use equipment from the Recess Project" (Girl, Grade 7), "playing soccer and football" (Boy, Grade 6), "Recess project is there if you are bored" (Boy, Grade 5), "i like the monkey bars and bracelet club, playing games on the field" (Girl, Grade 4), "CHEERLEADINGWITHMAFRIENDS" (Girl, Grade 4), "gym for the resses proget" (Boy, Grade 4), "i like all the clubs there is to do" (Girl, Grade 4), "I like When theres dodgeball in the gym" (Boy, Grade 8), "you have a lot of things to do" (Boy, Grade 4), and "there's lots of things to do" (Girl, Grade 5). Likewise, children reported they did not enjoy recess when they were bored because of a lack of equipment or activities, "Sometimes it's boring and their's nothing to do" (Girl, Grade 6), "having nothing to do. Or it being cold out, because you can't play sports in winter with the snow on the ground" (Girl, Grade 8), "you don't have much to play with" (Boy, Grade 4). Notably, students in grade 7 and 8 reported that they do not enjoy recess because they have few options for their age and preferences, "Because when you get older you don't really want to play as much so you basically do nothing and it gets kind of boring" (Girl, Grade 8), "Theres not a lot of things the older kids {intermediate} {Grade 7-8} can do other then stand around and talk. Although thats a lot of fun, sometimes it gets boring" (Boy, Grade 7), "sometimes boring, not a lot of good sports equipment-soccer balls-basketballs-footballs" (Girl, Grade 8), and "The soccer balls are also the size of my hand and they're horrible" (Boy, Grade 6).

Weather. Importantly (for Canada) students mentioned that they liked outdoor recess when it was nice outside, but their playtime was impeded when the weather was bad. They noted that they like "Being active, getting fresh air, get to play outside" (Girl, Grade 4), "Because you get a time with fresh air and away from work" (Girl, Grade 6), and "I like that we get to go outside to get fresh air" (Girl, Grade 8). Yet children mentioned they favoured outdoor recess the least due to bad weather, "because it is really cold outside so that makes it hard to play and have fun outside" (Girl, Grade 4), "It can be really hot or cold and we have to go outside" (Girl, Grade 5), "When Its Wet" (Girl, Grade 5), "When its too cold and I feel like my body will fall apart because its way too cold but still make you go outside" (Girl, Grade 8), and "If it is really cold out you can't really do anything except try and stay warm" (Girl, Grade 8). The bad weather can be unpleasant for students when they are forced to stay outside and they lack the option of playing inside.

Discussion

Overall, the purpose of our investigation was to quantitatively and qualitatively examine factors that influence children's *enjoyment* and sense of *belonging* during recess, particularly in light of our action research project. Results pertaining to the first objective of this study, to compare the key outcomes of *enjoyment* and *belonging* between RP and NRP groups, revealed significant differences in *enjoyment*, but not *belonging*. We found that children's *positive affect* was positively associated with *enjoyment*, which is expected as it is a link that is well-established in the scholarly literature (Deci & Ryan, 2000). Likewise, *negative affect* and non-participation in recess project were negatively associated with *enjoyment*. Furthermore, we also found that children reporting a disability had significantly lower *enjoyment* scores than those who did not.

Differences detected were small and predictors other than participation in *Recess Project* were also found to be significant. Nevertheless, as *enjoyment* has been linked to important factors in health and wellbeing (see Deci & Ryan, 2000), this finding is worthy of follow up and investigation with more nuanced measures. The RP group reported more *enjoyment* than the NRP group, though, interestingly, a sense of belonging was not significantly different between groups. However, *belonging* and *positive affect* were positively associated with *enjoyment* scores in both groups, though these associations were stronger in the RP group.

The qualitative descriptions help illuminate some of the pathways between the recess setting and children's enjoyment. The children's responses revealed that they enjoyed recess for the opportunity to socialise and to have autonomy over their activities. Children who did not enjoy recess reported boredom, experiences of exclusion and victimisation, and bad weather as factors that influenced their enjoyment. Importantly, they reveal how they most valued recess as a *social* setting, specifically, the opportunity to connect with their friends. This is an important message – it reminds us that this is an important part of the school day for children to fulfil their necessary social and emotional needs, which, as we discussed earlier, are well-understood to contribute to positive affect and overall well-being. Moreover, by understanding that recess is, for the students, a very important social space, we can better appreciate why their descriptions of conflict, victimization, and social exclusion are concerning and must be addressed if we are committed to truly supporting children's overall health, well-being, and school success. And furthermore, it provides information that can assist us in our prevention and intervention efforts, namely, to ensure that supports are designed to scaffold positive social interactions and healthy friendships.

As well, the students placed a high value on having a sense of autonomy over decisions as how to spend their free time. This finding mirrors the literature in psychology and social neuroscience, as autonomy, like belonging, is an important psychological need that is necessary for healthy human functioning (Deci & Ryan, 2000). Furthermore, this is an important finding to highlight given that some schools are buying into adult-led and directed activity programmes to boost daily physical activity levels or 'manage' recess. Moreover, the students themselves highlight the ways in which these management and safety concerns manifest in overprotective behaviour of the supervisors, the imposition of strict rules, and the bans on certain activities – facilitation that has consequences not only for removing enjoyment, but also removing developmentally necessary risks and challenges (see Brussoni et al., 2015). Thus the type of facilitation by adults seems at least as important as its existence.

Further, our findings are consistent with previous research that suggests students benefit in many ways from having a well-organized playground that offers a range of equipment, activity options, adult support, peer role models, and a variety of creative play opportunities during recess (Hyndman, Benson, Ullah, & Telford, 2014; McNamara et al. (2014); McNamara (2013); Kuh, Ponte, & Chau, 2013; Lester, Jones, & Russell, 2010; Verstraete, Cardon, De Clercq, & De Bourdeaudhuij, 2006). McNamara et al. (2014) found that when playful, prosocial relationships were encouraged and supported, the students felt more connected to their peers during recess – ameliorating many of their social challenges. Also, London, Westrich, Stokes-Guinan and McLaughlin, (2015) found that 'high functioning' recess contributed to a better social climate. They found that when adults supported students in recess, students felt safer, better connected, and more engaged in the activities, thereby creating a better school climate overall – and it is now well established that school climate influences a range of factors that shape school success, including school engagement and commitment to school (Thapa, Cohen, Guffey, & Higgins-

D'Allesandro, 2013).

Overall then, our findings are important as they not only draw attention to the potential pathways between the recess setting and the psychosocial outcomes of enjoyment, positive affect, and belonging, but they remind us that schools play an important role in promoting opportunities for children to realize their right to play and participate in recreational activities. Specifically, the Office of the United Nations High Commissioner for Human Rights deems play, rest, and recreation so essential to children's well-being and development that it is recognized as an indisputable human right – namely, United Nations Convention on the Rights of the Child (UNCRC), Article 31. The UNCRC emphasizes that certain conditions need to be assured if children are to realize their rights fully, and that includes opportunities for play in an environment that is *protected from social exclusion, violence, prejudice, and discrimination*. As well, and consistent with our findings, the UNCRC also highlights that particular attention needs to be paid to children with disabilities as a variety of physical and social barriers prevent them from engaging in areas where friendships are formed and play and recreation take place – barriers that impede them from fully realizing their Article 31 rights.

The present study extends our understanding of children's feelings of belongingness, affect, and enjoyment during recess. Further, the combination of quantitative and qualitative data enriches our understanding of their circumstances. While there are many considerable strengths of this study, there are some limitations. First, positive and negative affect were measured concurrently in the same survey – with the *enjoyment* and *belonging* outcomes – and therefore there is a possibility of rater bias at work (i.e. some children may have a bias to rate more positively or negatively than others). Second, all of our quantitative measures showed limited variance, with children showing a strong tendency towards positive responses. Third, the pragmatic nature of the study meant that a quasi-experimental design with pre-post measures could not be adopted. This limits the inferences that can be made about the impact of the Recess Project. Fourth, using qualitative techniques with a larger sample size creates a time commitment that impedes us from adhering to the completeness of qualitative assumptions and techniques. To balance this, we used a small number of open-ended questions that would satisfy our needs in this particular study. Fifth, this study was intentionally limited to the perceptions of students. As with all self-report methods it is possible that some of the participants over- or underestimate their responses, but this is the compromise we made to ensure the student voices were revealed. Nevertheless, self-report methods are the preferred choice among many researchers (Espelage & Swearer, 2003) and are considered valid and reliable (Sekol & Farrington, 2013).

Future work should emphasise the development of sensitive measures that capture a wider range of experiences. It is important to note that the current study was conceptualised as an exploratory one. Likely targets for future research, based on our findings, would be to better understand the ways in which friendship building is supported during recess, ensuring sufficient child autonomy and finding more meaningful and sensitive ways to measure belonging. Further future research directions include introduction of pre- and post- intervention designs, and designs including control groups that will allow us to address questions of efficacy. Furthermore, it would be helpful to consider a wider variety of descriptive techniques to complement the quantitative variables. Nonetheless, we feel that we have effectively highlighted children's experiences of their recess, experiences that clearly warrant our attention.

Conclusion

In conclusion, we found preliminary support for the notion that participation in *the Recess Project* is significantly associated with higher levels of *enjoyment*. Further, in our study, *belonging* and *positive affect* were positively and significantly associated with *enjoyment*. Qualitative data showed that children were likely to report friendship and autonomy as valued aspects of recess. Findings support our original hypothesis that *Recess Project* participation may be a significant context for building positive social experiences via influences on recess enjoyment, and as such we plan to move to the next stage of project evaluation.

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