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Résumé de l'article

En contexte de pandémie de COVID-19, les activités en classe de primaire, marquées par une distanciation physique entre les élèves et les enseignants, posent certains enjeux. Ainsi, cet article vise à examiner la perception des élèves du primaire quant à leur environnement sociopédagogique en contexte d'enseignement distancié. À cette fin, les réponses fournies par 1002 élèves de 6 à 12 ans à l'automne 2020 dans le Questionnaire sur l'environnement sociopédagogique au primaire (QESPP) ont été soumises à des analyses quantitatives descriptives ainsi qu'à quelques analyses comparatives inférentielles (SPSS, version 23.0). Les résultats montrent une forte tendance des perceptions positives des élèves face aux divers climats de leur environnement sociopédagogique, bien que le climat relationnel semble perçu un peu moins positivement.



The Socio-Pedagogical Environment of Primary School Students in the Context of a Socially Distanced Classroom

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Abstract

In the context of the COVID-19 pandemic, classroom activities in the primary school, marked by physical distancing between students and teachers, raise some challenges. Thus, this article seeks to document the primary school students' perceptions regarding their socio-pedagogical environment in the context of a socially distanced classroom. For this purpose, responses to the *Questionnaire sur l'environnement sociopédagogique au primaire* (QESPP) provided by 1,002 students aged from six to 12 in the fall of 2020 were subjected to descriptive quantitative analyses and to some comparative inferential

analyses (SPSS 23.0). Results show a strong tendency of students' positive perceptions toward the various climates of their socio-pedagogical environment, although the relational climate seems to be perceived somewhat less positively.

Keywords: socio-pedagogical environment, primary school, student perceptions, social distancing

Résumé

En contexte de pandémie de COVID-19, les activités en classe de primaire, marquées par une distanciation physique entre les élèves et les enseignants, posent certains enjeux. Ainsi, cet article vise à examiner la perception des élèves du primaire quant à leur environnement sociopédagogique en contexte d'enseignement distancié. À cette fin, les réponses fournies par 1002 élèves de 6 à 12 ans à l'automne 2020 dans le *Questionnaire sur l'environnement sociopédagogique au primaire* (QESPP) ont été soumises à des analyses quantitatives descriptives ainsi qu'à quelques analyses comparatives inférentielles (SPSS, version 23.0). Les résultats montrent une forte tendance des perceptions positives des élèves face aux divers climats de leur environnement sociopédagogique, bien que le climat relationnel semble perçu un peu moins positivement.

Mots-clés : environnement sociopédagogique, école primaire, perception des étudiants, distanciation sociale

Context and Research Problem

In March 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic (Labrecque, 2020). Hence, the exceptional context of the spread of the disease and the means taken to limit it, like the diverse sanitary measures and lockdowns, has led to major upheavals in all spheres of society. In the process, the educational environment was strongly shaken, particularly in regard to the teaching and learning environment. The methods and practices that have been in place for decades have been modified, redesigned or eliminated in order to limit the risk of contagion among students (Organisation for Economic Cooperation and Development, 2021). In this regard, the United Nations Educational, Scientific and Cultural Organization (UNESCO) reported in the spring of 2020 that 91% of students worldwide were affected by school closure. Under these conditions, new ways of schooling were adopted and students had to learn differently, through online learning, or more precisely, emergency remote teaching (Hodges et al., 2020).

In Quebec, a vast majority of primary school students returned to classrooms in the fall of 2020. This return, however, has led the school population to face new challenges. First, there was a constant threat that schools would close again. Then, teaching in the classroom had to proceed according to physical distancing guidelines between students and their teacher. This adjustment of practices, called here the socially distanced classroom, along with the other existing sanitary measures, certainly had an influence on the environment of the primary school students (Jo et al., 2021). To this end, although the majority acclaims the return (and the keeping) of primary students in classrooms (Morasse & Colpron, 2020), numerous newspaper articles describe the effects of the new context of the socially distanced classroom on the well-being of students (see for example Beaumont, 2021; Schwartz, 2020). According to a press review, the quality of learning and interactions at the primary level is also a concern during occasional episodes of distance education that occur for preventive or curative reasons (Talbot & Lessard, 2020). It is possible to link these observations to what research shows about the influence of the classroom climate on the students' adaptation, well-being (Baudoin & Galand, 2018), and social and educational success (Archambault, 2009; Wang et al., 2020). The classroom climate is defined here as the socio-pedagogical environment of the students, a concept that will be further investigated in this article.

Following these considerations, since the socio-pedagogical environment is mainly measured through the aggregation of individual perceptions, hence by the pooling of the perceptions of different actors (Brault, 2004), it is important to give enough consideration to the students' point of view on the subject. Therefore, the perceptions of the primary school students (from six to 12 years old) regarding their classroom climate remains a field of exploration. Indeed, the needs of these students are distinct because of their level of physical and motor development, as well as cognitive, social, and emotional development. In light of these considerations, the implementation of such an approach to shed light on the effects of the socially distanced classroom, from the point of view of students, currently appears to be a priority in research. This is, in fact, precisely the aim behind this article: to document the perception of primary school students regarding their socio-pedagogical environment in the context of the socially distanced classroom. This article explores that context, then further elaborates on the concept of the socio-pedagogical environment and its various components. The following sections outline the methodology underlying the collection of data on students' perceptions and present the results emerging from it.

Conceptual Framework

Socially Distanced Classrooms: Issues for Students

In the primary school in Quebec, the socially distanced classroom is characterized in particular by the arranging of students into stable class groups, without reducing the size of usual groups. If in the specific case of these groups, physical distance between students was not required, a two-metre distance should nevertheless have been maintained between students of different classes that circulated in the common areas of the schools; the use of face covers was also mandatory for Grade 5 and 6 students when going out to these areas.¹ Likewise, teachers were required to wear protective equipment (procedural mask, goggles, face shield) and avoid close contact with students (theirs or others') without this equipment (Gouvernement du Québec, 2020).

1 Although wearing the procedural mask full time became mandatory in Quebec and for all the primary school students during the 2020–2021 school year, it wasn't the case during the data collection period.

Given these facts, it is possible to say that respect of such sanitary measures and distancing, along with the appropriate management of the equipment used in the classroom, like frequent disinfection of the common equipment and limiting as much as possible the sharing of personal objects (papers, notebooks, crayons, etc.), might generate some stress among young students aged from six to twelve and complicate their interactions. Rezrazi (2020) identifies two anxiety-inducing agents which can psychologically affect learners in the context of a pandemic: (1) the spread of the disease; and, (2) the measures taken to fight against the pandemic like lockdowns, online learning and socially distanced classrooms. The fact that young students do not always understand the circulating information or try to understand it according to their level of development can cause them to experience stress and provoke in them various reactions (Gouvernement du Québec, 2020). As a result, primary school students have been directly affected by the pandemic, and those with academic difficulties and low academic engagement before the pandemic were consequently more severely affected by this situation (Garcia & Weiss, 2020).

A francophone press review on COVID-19-related mental health, published in the wake of the events of spring 2020, reported an increase in prescriptions for anti-anxiety medications among children, as well as a decrease in motivation and school engagement (Talbot & Lessard, 2020). It should be noted, however, that these observations concern a period mainly marked by online learning. It is also important to specify that, in this learning context, the lack of motivation is precisely one of the main factors of dropout rates among older learners in online learning. In fact, the dropout rate in online learning varies between 26.9% and 43.2%, while in face-to-face education it is around 20% (Daigneault, 2018). While research on autonomy (Cosnefroy, 2012), self-regulation (Jézégou, 2010), sense of competence (Poellhuber, 2007), and online collaboration (Curtis & Lawson, 2001) of adults in online learning has highlighted some challenges regarding the motivation, engagement, and perseverance of learners, the unprecedented context of this type of education, just like that of the socially distanced classroom, remains poorly documented in the primary school (Parr, 2017).

While it appears that the reopening of schools during the COVID-19 pandemic was a protective measure for the mental health of students (Talbot & Lessard, 2020), there are other issues to consider in the context of a socially distanced classroom. Indeed, learning for young students from six to 12 years presents particular challenges in relation to their increased need for support and supervision. Another important issue concerns the pedagogi-

cal practices implemented with these young learners (e.g., explicit teaching, project-based or discovery-based learning) which require the use of manipulatives (Simonin, 2019), games (Wood, 2014), material representations of learning (Calkins, 2020), as well as social interactions between peers and with the teacher (Laurendeau, 2020; Morlaix, 2015).

Primary education is also characterized by a great closeness between the teacher and the students (Cinéus, 2020), whether for pedagogic reasons (individual feedback, remedial, gathering for reading time), for reasons related to the development of students (helping with clothing and personal hygiene), or in the context of social and emotional interactions (consoling, comforting, praising). Hence, meeting the students' needs in the context of a socially distanced classroom requires the modification of common spaces (e.g., gathering area with two metres of distance between the teacher and the students) and the use of protection equipment (e.g., transparent panel separating the teacher from the student during an individual meeting or wearing protective equipment).

These observations suggest that the socially distanced classroom seems preferable to online learning. The primary context nevertheless requires innovative solutions to support the well-being of students (Goyette et al., 2020), their social life (Beaulieu, 2007) and their trust toward their teacher (Mitchell et al., 2018), which highlights the importance of a favourable classroom climate (i.e., the quality of the socio-pedagogical environment of the students). Therefore, the socio-pedagogical environment plays a predominant role in the progress of young students (Duru-Bellat, 2003) who constantly develop and interact in their classrooms, which is perceived as a microsystem (Morlaix, 2015).

Socio-Pedagogical Environment

Given the major importance that the socio-pedagogical environment seems to have on the well-being of students in the context of the socially distanced classroom, it is important to explore this concept further in order to better understand it and to measure its effects. The socio-pedagogical environment is in fact at the heart of Quebec's schools' missions, which aim to develop disciplinary, cognitive, and social skills (Ministère de l'Éducation du Québec, 2006). Specifically, the essence of the socio-pedagogical environment, as defined by Carpentier et al. (2022), is revealed through the main pillars of Quebec's schools' missions in the specific context of the classroom; the social and affective dimensions are therefore linked to the daily activity of the classroom. From this perspective, the

relationship between the student, the peers, and the teacher is central, regardless of the subject matter of study (Simard, 1997), and the teacher's interventions are considered in real pedagogical situations (Legendre, 2005).

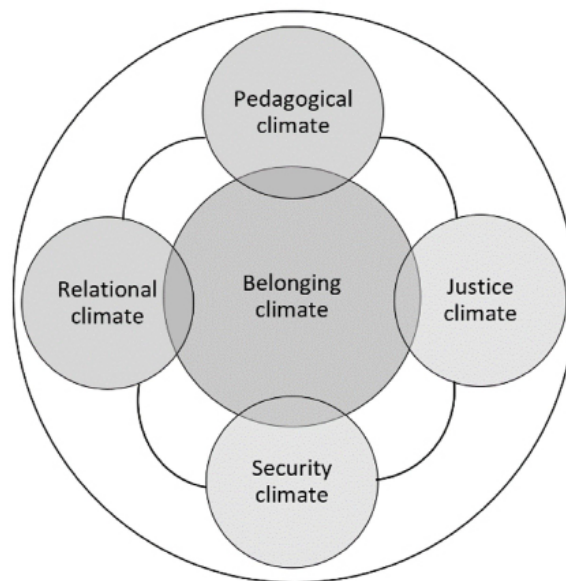
It is important to note that this environment is inspired from the theoretical model of Janosz et al. (1998, 2007), as defined for the context of secondary and primary schools. This model focuses more broadly on the socio-educational environment and therefore defines the school environment, at the school level, according to three components: the school climate, the educational practices, and school and social problems. The concept of socio-pedagogical environment therefore partially takes up these components, but rather from the standpoint of the classroom climate. It focuses more precisely on five climates, as described below, and integrates certain pedagogical practices that are more inclined to act on the affective dimension of the school environment, which is essential for academic success (Baudoin & Galand, 2018).

1. The relational climate refers to the socio-affective dimension of human relations, in particular between students. Positive relationships lead to an appreciation of the school experience. Thus, the quality of the relational climate depends mainly on warm and respectful interpersonal relations between peers, as well as on the power of positive feedback and reinforcement (Roffey, 2012).
2. The pedagogical climate revolves around the quality of teaching in an effort to achieve academic success for students. It is reflected in both the communication of the teacher's expectations from his/her students regarding their anticipated success (Archambault, 2009) and the use of various pedagogical practices with the aim to motivate and engage students (Bouffard et al., 2005). The support provided to students, especially those with learning difficulties, also affects this climate (Subban, 2006).
3. The security climate relates to the students' feelings of security and trust. In this regard, established routines contribute to the predictability and consistency of the environment (Baudoin & Galand, 2018). Likewise, in relation to the pedagogical climate, the teacher's planning and his/her classroom management practices act on the students' engagement and help avoid any time loss that could lead to inappropriate interactions. Thus, the quality of the security climate relies on a kind of teaching leading to a common understanding of classroom rules and their consequences (Alter & Haydon, 2017).

4. The justice climate is strongly linked to the security climate, since it relates to the legitimacy and fairness of the rules, as well as to their judicious application. Hence, rules and consequences must be applied rigorously and coherently (Baudoin & Galand, 2018).
5. The belonging climate lies at the heart of the other components of the socio-pedagogical environment, which is further illustrated in Figure 1. This climate is strongly affected by the other components and its development is therefore optimal when the relational, pedagogical, security, and justice climates are ensured. Although a good belonging climate is overall reflected through the student's sense of pride to be part of the class, it more precisely refers to the harmonization of needs and desires of the student with those of the members of his/her group, reflecting the positive adaptation of the environment (St-Amand et al., 2017).

Figure 1

Components of the Socio-Pedagogical Environment (Inspired by the work of Janosz et al., 1998 & 2007)



Each of these climates can be affected by a change in the way of teaching and by the most obvious students' needs emanating from such a change. For example, accumulated school delays due to school closures might change the meaning of the learning done. Switching from online learning to the socially distanced classroom could affect students' sense of security. Under these circumstances, the teacher would likely have to adjust his/her practices to be all the more caring and reassuring. It is therefore possible to consider that the quality of the climates described above has a determining influence on the classroom climate in an unstable period such as that caused by the COVID-19 pandemic. From this perspective, the model of the socio-pedagogical environment appears relevant to document the primary school students' perceptions regarding their class climate in the context of a socially distanced classroom.

Methodology

In light of the concerns raised above, Hildesheimer (2020) underlines the importance of going beyond the first impressions about the exceptional pedagogical situation in this period of crisis. As a matter of fact, when the pandemic remains a daily reality, discernment is not complete. Hence, it is interesting to document, try to understand, and describe the challenges of the socially distanced classroom, which was the current practice in the primary level at the time of writing this article, to observe with more accuracy its effect on the primary school students' socio-pedagogical environment. The methodological design that was followed to address the research objective is presented here. It is discussed in terms of students' perceptions, a design implemented and proven to be effective by many researchers (Barksdale et al., 2021; Bear et al., 2017; Janosz et al., 2007).

Participants

Twenty-five regular classes in Quebec (from diverse socio-economic backgrounds) from Grade 1 to Grade 6, in the region of Lanaudière, participated in this study during the months of September to November 2020. This data collection surveyed 1,002 students from six to 12 years old with the aim of collecting their perceptions and observations regarding their socio-pedagogical environment in this uncommon period. After obtaining students' and parents' consent, the questionnaire was conducted during class hours. In

this sample, the repartition of the number of boys and girls was equal and 69% of the participants were six to nine years old and 31% were between ten and twelve years old. Further details concerning the distribution of students according to their age are presented in Table 1.

Table 1

Distribution of 1,002 Students by Age

Students' age	<i>N</i>	%
6 years	110	11.0
7 years	225	22.5
8 years	207	20.7
9 years	148	14.8
10 years	163	16.3
11 years	141	14.1
12 years	8	0.8
Total	1,002	100

Data Collection

In order to collect the primary school students' perceptions, The *Questionnaire sur l'environnement sociopédagogique au primaire* (QESPP) was used. This questionnaire is adapted from the *Questionnaire sur l'environnement socioéducatif des écoles primaires* (QES-primaire [Janosz et al., 2007]). The validation of the QESPP (Carpentier et al., 2022), first in school and with field experts, then through exploratory and confirmatory factor analyzes with the Mplus 7.2 software, led to deducting and simplifying the initial selection of items and to confirming the psychometric qualities of a 23-item version with a five-factor structure: relational climate (3 items, $\omega = 0,73$), pedagogical climate (6 items, $\omega = 0,88$), security climate (6 items, $\omega = 0,91$), justice climate (5 items, $\omega = 0,79$), and belonging climate (3 items, $\omega = 0,82$).

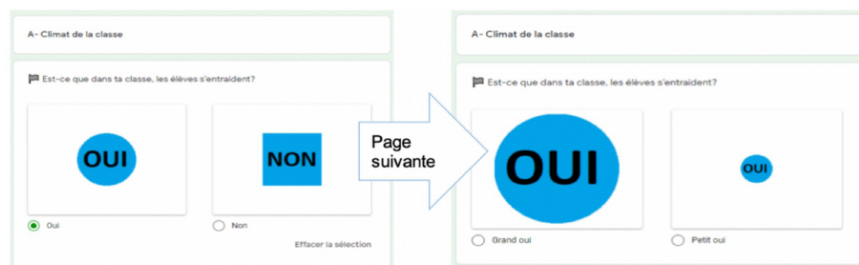
Concretely, the QESPP was taken on electronic tablets, for about 12 to 15 minutes, taking into account the attention span of young students (Bordeleau & Bouffard, 1999; Filiatrault-Veilleux et al., 2016). They were therefore asked to take a position re-

garding the components of the socio-pedagogical environment according to four levels of the Likert scale (*strongly agree, agree, disagree, and strongly disagree*).

For accessibility reasons, administering the questionnaire with six- to nine-year-old students required some additional adaptations. In order to avoid dichotomous biases, it was particularly essential to adjust the labels of the scale and to segment the answer in each question. For this purpose, the model of Harter (1983) was adopted. Thus, after reading aloud each question by the adult, the students of this age group need to position themselves between two possibilities associated with geometric shapes (square or circle), then determine the intensity of their answers in a second step according to the size of the shapes (big square, little circle, etc.). In this version of the questionnaire, pictograms also replaced question numbers to facilitate the identification (Gayral-Taminh et al., 2005; Filiatrault-Veilleux et al., 2016). Figure 2 represents the visual aspect of this questionnaire as well as the described steps.

Figure 2

An Extract of the QESPP Version Destined to Six- To Nine-Year-Old Students



Data Analysis Method

In order to document the primary school students' perceptions regarding their socio-pedagogical environment in the context of a socially distanced classroom, it was essential to draw up a statistical portrait of the answers provided by all 1,002 students aged from six to 12 years who took the QESPP in this study. In the same vein, analyses are described here first by looking at the data collected for each item, then more broadly on each component. Similarly, other analyses that emerged from observations and tests used to conduct all of these analyses are mentioned.

After analysis, the Likert scale levels were transformed into ratings: *strongly agree – big circle* (1), *agree – little circle* (2), *disagree – little square* (3), *strongly disagree – big square* (4). This numerical transposition of the students' answers made it possible to proceed to a first series of descriptive quantitative analyses of the data (according to frequencies and percentages) for each of the 23 items of the questionnaire. Afterwards, for the purpose of a climate-centred analysis, the sum of frequencies of items corresponding to the same component of the socio-pedagogical environment was calculated. For instance, since items 1, 2, and 3 reflect the relational climate, the sum of frequencies of each of these items was calculated. Hence, it was then possible to proceed to calculating the means and medians of each of the climates. At the same time, percentages were calculated in order to be able to compare the sums obtained for each component. Furthermore, although this was not a specific predefined objective, the observed results led to perceiving the relevance of conducting some inferential comparative analyses according to certain sociodemographic data, namely gender and age.

All analyses were performed with SPSS quantitative analysis software (version 23) and the selection of tests performed is based on the recommendations of Field (2017). In order to check for significant differences between the groups, in the case of inferential comparative analyses, non-parametric tests with two independent samples (Mann-Whitney) or with several (K) independent samples (Kruskal-Wallis) were carried out from the data. For these analyses, we used Fisher's exact test and Cohen's effect size tags. We had to conduct these non-parametric tests since, according to the distribution graph (Kolmogorov-Smirnov and Shapiro-Wilk), the data were not normally distributed, and the variances of the groups were unequal (Levene test).

Results

The results that emerged from these quantitative analyses allowed researchers to identify the students' perception of the socio-pedagogical environment of their socially distanced classroom. In this regard, Table 2 illustrates more specifically the distribution of the students' responses regarding each of the climates of the socio-educational environment.

Table 2

Mean (\bar{x}), Median (Med) and Standard Deviation (σ) of the Students' Responses According to the Climates of the Socio-Pedagogical Environment

Climates	\bar{x}	Med	Σ
Relational	1.97	2.00	.669
Pedagogical	1.41	1.17	.611
Security	1.47	1.17	.624
Justice	1.59	1.40	.638
Belonging	1.45	1.11	.738

The climate-focused analysis shows a strong trend of positive responses among students. Indeed, the mean of the responses provided for each climate is between a score of 1 and 2 and the median generally indicates a central tendency approaching a score of 1, which reveals a very positive perception of the students regarding their socio-pedagogical environment. It is, however, important to highlight that in the case of the relational climate, the mean tends to be closer to a score of 2 and the central tendency corresponds precisely to this score, which demonstrates a less positive perception of the students with regard to this climate. As a matter of fact, the descriptives analyses shows a notable difference between the percentage of the very positive responses (score 1) given by the students on the relational climate compared to the other climates. Indeed, 32% of the respondents to the QESPP considered the items related to the relational climate very positively, while the mean of the very positive responses related to the other climates was 67%, corresponding to more than double the number of very positive responses for items associated with these climates. Furthermore, by combining the percentage of the very positive responses with that of the positive responses (scores 1 and 2), the relational climate still remains less positively perceived than the others (77%), although in this case the results are almost equal to those of the security climate (78%). On the other hand, the descriptives analyses illustrates the high proportion of positive responses, including 74% very positive responses, related to the belonging climate. The median, which shows a central tendency toward score 1.11, testifies to the students' positive perception of this climate.

Also, the detailed analysis of the results by item was found to be consistent with the observations from the analysis by climate. Indeed, item 23 (*Are you proud to be part of your class?*), associated with the climate of belonging, emerges as presenting the highest

majority of positive responses (93% of the positive responses). Item 21 (*Are you happy to be in your class?*), also associated with this climate, stands out with 91% of positive responses. Similarly, items 4 (*Does your teacher make you learn while doing amusing activities?*) and 8 (*Does your teacher help students when they're having difficulties?*), related to the pedagogical climate, show 92% of the positive responses. Always in line with the analysis by climate, this detailed analysis indicates that item 1 (*Are the students in your class nice to each other?*) and item 3 (*Are the students in your class polite to each other?*), corresponding to the relational climate, are perceived more negatively by the students (below 80% of the positive responses). Although the security climate presents generally positive results, the fact that it exhibits almost equal results with the relational climate when combining the positive scores seems to be linked to item 15 (*Do you waste a lot of time because of disturbing/bothering students [fooling around, speaking loudly, playing, etc.]?*), which is perceived rather negatively by students (19% of negative responses).

The analysis also led to an interest in comparing certain sociodemographic data, namely gender or age. For this purpose, Tables 3 to 5 provide an overview of the results from the comparative inferential analysis.

Table 3

Comparative Analysis According to the Students' Gender

Climates of the socio-pedagogical environment		Girls	Boys	Mann Withney (U)	<i>P</i>	η_p^2
Relational	Average rank	496.63	494.37	121953.5	0.9	0.036
	n	496	494			
Pedagogical	Average rank	457.46	533.7	103643.5	0.001*	0.047
	n	496	494			
Security	Average rank	476.92	514.16	113294	0.035*	0.019
	n	496	494			
Justice	Average rank	440.47	550.75	95216.5	0.001*	0.046
	n	496	494			
Belonging	Average rank	452.57	538.6	101219.5	0.001*	0.043
	n	496	494			

When comparing students' perceptions of the different climates, taking into consideration the respondents' gender, pedagogical, justice and belonging climates presented significant results ($p < 0,05$). This rejects the null hypothesis according to which the ranks are equal. In such cases, the average ranks then indicate that girls have a more positive perception of their classroom climate. According to Cohen's tags, results concerning the security climate present a small effect size (partial Eta squared of 0,019), indicating a smaller difference in responses between boys and girls. The results observed with the pedagogical, justice, and belonging climates are different. They show an average effect size (partial Eta squared above 0,04), which indicates a larger difference between the responses of boys and girls. For example, in the case of the pedagogical climate, there was an average difference of 12% between girls and boys, and a similar difference was found with the belonging climate, too. In this respect, Table 4 provides a more focused look at the average differences which mark the dissimilarity of girls' and boys' responses to the items of justice and belonging climates.

According to the results presented in Table 4, the positive responses (scores 1 and 2 combined) provided by girls in the QESPP to items related to the justice climate showed a higher average deviation of 6.4% compared to boys' responses to these same items. Furthermore, the item-by-item data analysis helped to identify even more marked differences according to the respondents' gender. For example, item 19 (*Does your teacher check that all the students have understood correctly before continuing to teach?*) reveals a 13% difference between the positive responses given by girls and boys. A more detailed analysis reveals an even wider difference regarding the specific answer choice « strongly agree » (very positive response). Indeed, girls' responses in this case show a higher average difference of 15% compared to those of boys. From this point of view, the girls' very positive responses to item 19 present an 18% higher difference in comparison to those of boys. Likewise, data in Table 4 indicated that 67% of the girls strongly agree (very positive responses) to item 18 (*Is your teacher fair to all the students in your class?*), while only 50% of the boys did.

Analysis of the belonging climate items also revealed very important differences between girls' and boys' responses. Item 22 (*Are you happy to be back to class after a long break?*), for instance, shows a 15% difference between the positive responses provided by girls and boys. It is impressive that 98% of the female respondents seem happy to be in their class (positive responses to item 21) and that 97% of them are proud to be in their class (positive responses to item 23).

Table 4*Comparative Analysis According to the Students' Gender – Justice and Belonging Climates*

Items – Justice climate		Negative 3-4	Positive 1-2	Total	Very negative 4	Rather negative 3	Rather positive 2	Very Positive 1	Total
16. Does your teacher act the same with all the students in your class?	Girls %	17	83	100	2	15	20	63	100
	Boys %	22	78	100	4	19	28	49	100
17. Does your teacher always intervene when she realizes that a student is not following the rules?	Girls %	10	90	100	4	6	20	70	100
	Boys %	18	82	100	5	13	25	57	100
18. Is your teacher fair to all the students in your class?	Girls %	17	83	100	6	10	17	67	100
	Boys %	20	80	100	8	12	30	50	100
19. Does your teacher check that all the students have understood correctly before continuing to teach?	Girls %	8	92	100	3	5	18	74	100
	Boys %	21	79	100	8	13	23	56	100
20. Does your teacher talk to angry students/students who are upset to calm them down?	Girls %	9	91	100	4	5	17	74	100
	Boys %	12	88	100	7	6	26	61	100
Items – Belonging climate		Negative 3-4	Positive 1-2	Total	Very negative 4	Rather negative 3	Rather positive 2	Very positive 1	Total
21. Are you happy to be in your class?	Girls %	2	98	100	1,5	0,5	14	84	100
	Boys %	15	85	100	10	5	13	72	100
22. Are you happy to be back to class after a long break?	Girls %	12	88	100	8	4	19	69	100
	Boys %	27	73	100	19	8	16	57	100
23. Are you proud to be part of your class?	Girls %	3	97	100	1	2	9	88	100
	Boys %	11	89	100	8	3	15	74	100

From a different analytical angle, we compared the results from responses to the QESPP according to students' age. In this respect, only the responses of six- to 11-year-old students were taken into account, given that the number of 12-year-olds was too low when conducting the questionnaire ($n = 8$). According to this analytical perspective, all the climates of the socio-pedagogical environment present significant results ($p < 0,05$). The partial Eta squared value, analyzed according to Cohen's tags, also allows an observation of an even larger effect size regarding the relational climate (a partial Eta squared of 0,13 shows a large effect size). Results associated with the pedagogical, security, justice, and belonging climates present an average effect size (partial Eta squared between 0.02 and 0.05). More specifically, the age-based comparative analysis consistently shows a more positive perception of six-year-olds with regard to their classroom climate than their older peers.

The results actually seem to testify for a general tendency distinguishing younger and older students in regard to their positive answers. To this end, the results from the paired samples Wilcoxon test particularly show a significantly different median position for all responses of six- and seven-year-old students to relational climate items. Very similar results are observed with the justice climate, but in this case, it is the seven- and eight-year-old students who present a median position that clearly stands out from the other students (Table 5).

Table 5*Comparative Analysis According to the Students' Age*

Climates of the socio-pedagogical environment		Average rank	The paired samples Wilcoxon test					
			6 years	7 years	8 years	9 years	10 years	11 years
Relational	6 years	261		**	**	**	**	**
	7 years	611,5	**		**	**	*	**
	8 years	494,2	**	**				
	9 years	535,5	**	**				
	10 years	533,1	**	*				
	11 years	480,3	**	**				
	Kruskal- Wallis	119,9						
	P	0,001						
	partial Eta squared	0,013						
Pedagogical	6 years	432,9		**		*	**	**
	7 years	526,3	**		*			
	8 years	557,2		*			*	**
	9 years	505,7	*					
	10 years	532,9	**		*			
	11 years	544,5	**		**			
	Kruskal- Wallis	22,7						
	P	0,001						
	partial Eta squared	0,02						
Security	6 years	423,3				**	**	*
	7 years	477,9			*	*		
	8 years	493,4	*					
	9 years	564,7	**	*				*
	10 years	535,5	**					
	11 years	401,4	*			*		
	Kruskal- Wallis	31,2						
	P	0,001						
	partial Eta squared	0,03						
Justice	6 years	453,9		**	**			
	7 years	567,0	**		**	**	**	**
	8 years	574,8	**	**		**	**	**
	9 years	453,8		**	**			
	10 years	466,5		**	**			
	11 years	444,8		**	**			
	Kruskal- Wallis	46,7						
	P	0,001						
	partial Eta squared	0,04						

Climates of the socio-pedagogical environment	Average rank	The paired samples Wilcoxon test					
		6 years	7 years	8 years	9 years	10 years	11 years
Belonging	6 years	412,6	**	*	*	**	*
	7 years	543,4	**		**	**	*
	8 years	474,2	*	**			**
	9 years	473,1	*				**
	10 years	558,9	**	**			*
	11 years	485,0	*	*	**	*	
	Kruskal- Wallis	50,5					
	P	0,001					
	partial Eta squared	0,05					

Notes. * = $p \leq 0,05$

** = $p \leq 0,003$ ($\alpha = 0.05/\text{number of comparisons} = 0.05/14 = 0.003$) according to the Bonferonni correction

Conclusions

The results obtained from the QESPP provide some understanding of the primary school students' perceptions regarding their socio-pedagogical environment in the context of a socially distanced classroom. These results reveal certain worrying aspects of this exceptional school context, but particularly highlight the aspects that remain perceived positively by students.

In regard to the worrying aspects emanating from the analyses, links established between the analysis by climate and the analysis by item give rise to questions. Indeed, although results associated with the relational climate may a priori seem satisfactory, i.e., 77% of positive responses provided on average, this climate appears to be perceived less positively by students than other climates, which present on average 85% of positive responses. Moreover, some items of the relational climate are among those perceived more negatively by students, as is the case for the items related to kindness and politeness between students. It is also possible to establish certain links between the relational climate and some specific items of the security and justice climates. Thus, although these climates are generally perceived positively by students, some peer-related items stand out in a mixed way, as is the case with the feeling of fairness between students (Item 16 [20% of negative responses]) and with the perception of wasting time in the presence of inappropriate behaviour (Item 15 [19% of negative responses]). These findings seem to demons-

trate a possible exacerbation of difficult behaviours in the current unstable context of the socially distanced classroom. These findings, therefore, are consistent with the hypotheses that stress generated by the COVID-19 pandemic and the young students' incomprehension of this unprecedented situation would lead to various reactions, including some behavioural problems among students (Children's Hospital of Philadelphia, 2020; Gouvernement du Québec, 2020). According to Carpentier et al. (2021), such a context highlights the importance of a caring classroom environment, open to students' questionings and to the sharing of their experiences and emotions. As a matter of fact, it appears that a reassuring classroom climate, characterized by a positive relationship between the teacher and his/her students, would make it possible to act on students' anxiety as well as respond to their negative behaviours and, therefore, impact the relational climate (Gaudreau, 2011).

Furthermore, results from the comparative age- and gender-based analyses reflect other concerns. In particular, it seems essential to be concerned with boys in the context of the socially distanced classroom, since their perception of their socio-pedagogical environment tended to be less positive. Likewise, it appears important to ensure the well-being of older students who also demonstrated a less positive perception of their classroom environment, especially as they represent an age group more likely to experience mental health problems in this context of pandemic and socially distance classrooms (Einhorn, 2020). Consequently, it appears valid to question the origin of the positive responses of younger students, and more specifically those of six-year-olds. Could it be that the large period of kindergarten spent at home in the spring of 2020 has sufficiently motivated these young students to return to school the following fall and to further appreciate the interactions that take place in the classroom?

Despite these considerations, it is important to remember that analyses of the QESPP responses indicate a generally very positive evaluation of the primary school students' perceptions of their socio-pedagogical environment, regardless of the socially distanced classroom context in which they were evolving during data collection. Moreover, the sometimes less-positive perceptions of students did not seem to affect the fact that they were happy to be in their class. It is also important to mention that the belonging climate receives the most positive responses in comparison with the other climates, which is very reassuring since it is at the heart of the other climates (Janosz et al., 1998).

The students' generally very positive perceptions of their socio-pedagogical environment in the context of a socially distanced classroom and their strong sense of

belonging to their class suggest the considerable contribution of the teaching effect on students' perceptions. In this respect, Carpentier et al. (2021) highlighted the effect of the teachers' professional gestures on the socio-pedagogical environment of the primary school students in the context of a socially distanced classroom. Hence, actions taken by teachers to adapt their practices to the exceptional context of the pandemic, by placing the students' well-being and success at the heart of their priorities, seemed to support the development of students' disciplinary, social, and emotional skills. As a result, pedagogical support (Baudoin & Galand, 2018), practices focused on the interests and needs of students (Archambault, 2009), as well as the creation of a caring environment (Goyette et al., 2020) would particularly act on the well-being of students in such a context. In short, the students' perceptions from the QESPP assumed that the quality of the socio-pedagogical environment of students would depend on the wise choice of teachers' professional gestures. From this perspective, a central place should be given to the relational climate through these gestures, namely in the context of a socially distanced classroom.

References

- Aldridge, J., Fraser, B., Fozdar, F., Ala'I, K., Earnest, J., & Afari, E. (2015). Students' perceptions of school climate as determinants of wellbeing, resilience and identity. *Improving Schools*, 19(1), 1–22. <https://doi.org/10.1177/1365480215612616>
- Alter, P., & Haydon, T. (2017). Characteristics of effective classroom rules: A review of the literature. *Teacher Education and Special Education*, 40(2), 114–127. <http://doi.org/10.1177/0888406417700962>
- Archambault, I. (2009). *Effets de l'environnement scolaire, des attitudes, compétences et pratiques des enseignants sur l'engagement des garçons et des filles en milieux défavorisés. Direct and indirect contributions (FRQSC) for the University of Montreal*. University of Montreal. <http://www.frqsc.gouv.qc.ca/fr/la-recherche/la-recherche-en-vedette/histoire/effets-de-l-environnement-scolaire-des-attitudes-competences-et-pratiques-des-enseignants-sur-l-engagement-des-garcons-et-des-filles-en-milieux-defavorises-contributions-directes-et-indirectes-h67pxo-js1428418896073>
- Barksdale, C., Peters, M. L., & Corrales, A. (2021). Middle school students' perceptions of classroom climate and its relationship to achievement. *Educational Studies*, 47(1), 84–107. <https://doi.org/10.1080/03055698.2019.1664411>
- Baudoin, N., & Galand, B. (2018). Le climat scolaire influence-t-il le bien-être des élèves? In N. Rousseau & N. Espinosa (Eds.), *Le bien-être à l'école : enjeux et stratégies gagnantes* (pp. 15–30). University of Quebec Press.
- Bear, G. G., Yang, C., Mantz, L. S., & Harris, A. B. (2017). School-wide practices associated with school climate in elementary, middle, and high schools. *Teaching and Teacher Education*, 63(1), 372–383. <https://doi.org/https://doi.org/10.1016/j.tate.2017.01.012>
- Beaulieu, È. (2007). *L'incidence de facteurs relationnels sur la motivation scolaire d'élèves des deuxième et troisième cycles du primaire* [Master's thesis, University of Quebec]. Archipel. <https://archipel.uqam.ca/7468/>

- Beaumont, C. (2021, January 13). Pour un climat scolaire propice aux apprentissages. *La Presse*. <https://www.lapresse.ca/debats/opinions/2021-01-13/pour-un-climat-scolaire-propice-aux-apprentissages.php>
- Bordeleau, L., & Bouffard, T. (1999). Perceptions de compétence et rendement scolaire en première année du primaire. *Enfance*, 4(1), 379–395. <https://doi.org/10.3406/enfan.1999.3162>
- Bouffard, T., Brodeur, M., & Vézeau, C. (2005). *Les stratégies de motivation des enseignants et leurs relations avec le profil motivationnel d'élèves du primaire* (publication no. 94331), University of Quebec in Montreal.
- Brault, M. C. (2004) *L'influence du climat scolaire sur les résultats des élèves : effet-établissement ou perception individuelle?* [Master's thesis, University of Montreal]. Papyrus. <https://papyrus.bib.umontreal.ca/xmlui/handle/1866/1961>
- Calkins, L. (2020). *Teaching writing*. Heinemann.
- Carpentier, G., Roy, N., Sauvageau, C., et Bowen, F. (2022). Validation du questionnaire sur l'environnement sociopédagogique des élèves du primaire (QESPP). *Canadian Journal of Behavioural Science*. Advance online publication. <https://psycnet.apa.org/doi/10.1037/cbs0000314>
- Carpentier, G., Sauvageau, C., et Roy, N. (2021). Enjeux autour de la pratique enseignante en contexte d'enseignement distancié. *Revue hybride de l'éducation*, 5(1), 1–30. <https://doi.org/10.1522/rhe.v5i1>
- Children's Hospital of Philadelphia. (2020, June 23). *Managing disruptive behavior during COVID-19*. <https://www.chop.edu/news/health-tip/managing-disruptive-behaviors-in-the-time-of-covid-19>
- Cinéus, J.-W. (2020). *L'impact de la relation enseignant-élèves sur la réussite scolaire des élèves du secondaire en milieu socio-économique faible au Québec : une recension critique des écrits* [Doctoral dissertation, University of Sherbrooke]. Savoirs UdeS. <https://savoirs.usherbrooke.ca/handle/11143/17661?show=full>
- Cosnefroy, L. (2012). Autonomie et formation à distance. *Recherche et formation*, 69(1), 111–118. <https://doi.org/10.4000/rechercheformation.1752>

- Curtis, D. D., & Lawson, M. J. (2001). Exploring collaborative online learning. *Journal of Asynchronous Learning Networks*, 5(1), 21–34.
- Daigneault, M. (2018, October 10–11). *Quelles sont les stratégies motivationnelles disponibles et efficaces qui peuvent être mises en œuvre en formation à distance?* [Présentation de la conférence]. Communauté pour l'Innovation et la Recherche sur les Technologies dans l'enseignement/Apprentissage (CIRTA) 2018 conference : Présent et futur de l'enseignement et de l'apprentissage numérique, Quebec, Canada. https://cirta2018.telug.ca/telugDownload.php?file=2019/03/6_Daigneault_Myriam.pdf
- Duru-Bellat, M. (2003). Les apprentissages des élèves dans leur contexte : les effets de la composition de l'environnement scolaire. *Carrefours de l'éducation*, 16(2), 182–206. <https://doi.org/10.3917/cdle.016.0182>
- Einhorn, E. (2020, December 15). *Covid is having a devastating impact on children – and the vaccine won't fix everything*. NBC News. <https://www.nbcnews.com/news/education/covid-having-devastating-impact-children-vaccine-won-t-fix-everything-n1251172>
- Field, A. (2017). *Discovering statistics using IBM SPSS*. SAGE.
- Filiatrault-Veilleux, P., Desmarais, C., Bouchard, C., Trudeau, N., & Leblond, J. (2016). Conception et qualités psychométriques d'un outil d'évaluation de la compréhension d'inférences en contexte de récit chez des enfants âgés de 3 à 6 ans. *Canadian Journal of Speech-Language Pathology and Audiology*, 40(2), 149–163. <https://cjslpa.ca/detail.php?ID=1199&lang=en>
- Garcia, E., & Weiss, E. (2020). *COVID-19 and student performance, equity, and U.S. education policy*. Economic Policy Institute. <https://files.epi.org/pdf/205622.pdf>
- Gaudreau, N. (2011). La gestion des problèmes de comportement en classe inclusive : pratiques efficaces. *Éducation et Francophonie*, 39(2), 122–144. <https://doi.org/10.7202/1007731ar>
- Gayral-Taminh, M., Bravi, C., Depond, M., Pourre, F., Maffre, T., Raynaud, J., & Grandjean, H. (2005). Auto-évaluation de la qualité de vie d'enfants de 6 à 12 ans : analyse du concept et élaboration d'un outil prototype. *Santé Publique*, 17(1), 35–45. <http://doi.org/10.3917/spub.051.0035>

- Gouvernement du Québec. (2020). *Maladie à coronavirus COVID-19 : Mon enfant est inquiet en raison de la pandémie. Comment le soutenir?* <https://www.quebec.ca/sante/problemes-de-sante/a-z/coronavirus-2019/mon-enfant-est-inquiet-en-raison-de-la-pandemie-comment-le-soutenir/>
- Goyette, N., Martineau, S., Gagnon, B., & Bazinet, J. (2020). Les effets d'une approche pédagogique préconisant la psychopédagogie du bien-être sur la réussite éducative d'élèves du primaire. *Revue hybride de l'éducation*, 4(4), 1–23. <https://doi.org/10.1522/rhe.v4i4>
- Harter, S. (1983). Developmental perspectives on the self-systems. In E. M. Hetherington (Eds.), *Handbook of child psychology* (vol. 4, pp. 275–385). John Wiley & Sons.
- Hildesheimer, F. (2020, September 15). Entretien avec Françoise Hildesheimer. In *Cette mondialisation de masse des phénomènes épidémiques, c'est du jamais vu*. Le Monde. https://www.lemonde.fr/idees/article/2020/05/15/on-ne-peut-plus-seulement-definir-l-epidemie-comme-grand-personnage-archaïque-de-l-histoire-d-hier_6039718_3232.html
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, 27(1), 1–12.
- Janosz, M., Bouthillier, M., Bowen, F., Chouinard, R., & Desbiens, N. (2007). *Développement et validation du questionnaire sur l'environnement socioéducatif des écoles primaires (QES-primaire)* (Report no. 3550-U3). University of Montreal. <https://docplayer.fr/46563053-Rapport-de-validation-du-questionnaire-sur-l-environnement-socioeducatif-des-ecoles-primaires-qes-primaire.html>
- Janosz, M., Georges, P., & Parent, P. (1998). L'environnement socioéducatif à l'école secondaire : Un modèle théorique pour guider l'évaluation du milieu. *Revue canadienne de psychoéducation*, 27(2), 285–306.
- Jézégou, A. (2010). Se former à distance : regard sur les stratégies d'autorégulation environnementale d'étudiants adultes. *Savoirs*, 3(24), 79–99.
- Jo, S. Y., Li, J., Dewan, A., Cheng, Y.-C., Hou, H., & Sebro, R. A. (2021). Undergraduate student interest in healthcare career in the context of COVID-19 pandemic. Pre-print manuscript. *BioRxiv*. <https://doi.org/10.1101/2021.04.11.438530>

- Labrecque, A. (2020, March 11). COVID-19 : l'OMS déclare l'état de pandémie. *Québec-Science*. <https://www.quebecscience.qc.ca/sante/covid-19-oms-pandemie/>
- Laurendeau, P. (2020, May 13). 5 éléments à considérer avant de se lancer dans l'enseignement à distance. *École branchée*. <https://ecolebranchee.com/5-elements-avant-de-se-lancer-enseignement-a-distance/>
- Legendre, R. (2005). *Dictionnaire actuel de l'éducation* (3rd ed.). Guérin.
- Ministère de l'Éducation du Québec. (2006). *Programme de formation de l'école québécoise enseignement préscolaire et primaire*. Gouvernement of Quebec. http://www.education.gouv.qc.ca/fileadmin/site_web/documents/dpse/formation_jeunes/prform2001.pdf
- Mitchell, R. M., Kensler, L., & Tschannen-Moran, M. (2018). Student trust in teachers and student perceptions of safety: Positive predictors of student identification with school. *International Journal of Leadership in Education*, 21(2), 135–154. <https://doi.org/10.1080/13603124.2016.1157211>
- Morasse, M.-È., & Colpron, S. (2020, June 15). La « quasi-normalité » dans les écoles cet automne. *La Presse*. <https://www.lapresse.ca/covid-19/2020-06-15/la-quasi-normalite-dans-les-ecoles-cet-automne.php>
- Morlaix, S. (2015). Les compétences sociales : Quels apports dans la compréhension des différences de réussite à l'école primaire? *Hal Sciences de l'Homme et de la Société*. <https://halshs.archives-ouvertes.fr/halshs-01111163>
- Organisation for Economic Co-operation and Development. (2021). Parole aux enseignants : Faire face au stress professionnel du corps enseignant dans le contexte de la crise de la COVID-19. *L'enseignement à la loupe*, 36(1), 1–8. <https://doi.org/10.1787/fcbfcb3c-fr>
- Parr, M. (2017). Portrait des inscriptions à des cours en formation à distance (secondaire, collégial et universitaire) au Québec depuis 1995-1996. *SOFAD*. https://www.sofad.qc.ca/media/portrait_inscriptions_fad.pdf
- Poellhuber, B. (2007). Les effets de l'encadrement et de la collaboration sur la motivation et la persévérance dans les formations ouvertes et à distance soutenues par les TIC [Doctoral dissertation, University of Montreal]. Papyrus. <http://hdl.handle.net/1866/17685>

- Rezrazi, E. M. (2020). *Peacekeeping missions in the time of coronavirus: New configurations and new challenges*. Policy Center for the New South. <https://covidaba.com/wp-content/uploads/2020/06/Peacekeeping-Missions-in-the-Time-of-Coronavirus-New-Configurations-and-New-Challenges.pdf>
- Roffey, S. (2012). Developing positive relationships in schools. In S. Roffey (Eds.), *Positive relationships: Evidence based practice across the world* (pp. 145–162). Springer. https://doi.org/10.1007/978-94-007-2147-0_9.
- Schwartz, S. (2020, August 22). ‘Your teacher is not giving you a hug’: School returns, while anxiety and hope remain. *Montreal Gazette*. <https://montrealgazette.com/news/local-news/your-teacher-is-not-giving-you-a-hug-school-returns-while-anxiety-and-hope-remain>
- Simard, C. (1997). *Éléments de didactique du français langue première*. De Boeck Université.
- Simonin, L. (2019). *La manipulation en tant que stratégie pédagogique : l’impact d’un élevage de phasme dans l’apprentissage des sciences* [Master’s thesis, University of Franche-Comte]. HAL. <https://hal-univ-fcomte.archives-ouvertes.fr/hal-02385056>
- St-Amand, J., Bowen, F., & Wan Jung Lin, T. (2017). Le sentiment d’appartenance à l’école : une analyse conceptuelle. *Canadian Journal of Education*, 40(1), 1–32. <https://journals.sfu.ca/cje/index.php/cje-rce/article/view/2308>
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(1), 935–947.
- Talbot, J., & Lessard, L. (2020). Revue de presse sur la santé mentale et la COVID-19 : groupes ciblés et facteurs d’influence. *Quintessence*, 11(S5), 1–2.
- United Nations Educational, Scientific and Cultural Organization. (2020). *Éducation : de la fermeture des établissements scolaires à la reprise*. <https://fr.unesco.org/covid19/educationresponse>
- Wang, M.-T., Degol, J. L., Amemiya, J., Parr, A., & Guo, J. (2020). Classroom climate and children’s academic and psychological wellbeing: A systematic review and meta-analysis. *Developmental Review*, 57(1), 2–21, <https://doi.org/10.1016/j.dr.2020.100912>

Wood, E. (2014). The play-pedagogy interface in contemporary debates. In L. Brooker, M. Blaise, & S. Edwards (Eds.), *The SAGE handbook of play and learning in early childhood* (pp. 145–156). SAGE. <http://dx.doi.org/10.4135/9781473907850.n13>