SCHOOL BELONGINGNESS DURING COVID-19: STUDY IN PRIVATE SCHOOL STUDENTS IN JAKARTA

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ABSTRACT

An important aspect of students' emotional involvement in school that will help students to be more motivated and achieve optimally is how much students are attached and involved to their school. The definition commonly used to describe student involvement with their school is school belongingness. School belongingness as a condition when students feel personally accepted, valued, involved and supported in the social environment of the school. Seeing the importance of this aspect of school belonging to the psychological aspects of students in Indonesia, especially Jakarta as focus of this initial research. This research involved four private schools in Jakarta that participated in the study (one junior high school, two regular high schools, and one vocational high schools) in Jakarta with total of 826 participants. This study measured school belonging using the Psychological Sense of School Membership Scale (PSSM). The results showed that there was no significant difference in school belongingness in terms of sex, class, major, and device used during online learning. The results of the analysis showed a significant difference in the mean on six different aspects. The presence or absence of favourite teachers and school friends also distinguishes the level of school belongingness of students. With their favourite teachers and schoolmates, students have higher school belongingness. There is a significant difference in school belongingness seen from the reasons for choosing school, students' perceptions of the implementation of online learning and activity in school organizations or activities.

Keywords: School belongingness, junior high school students, senior high school students, private school, Jakarta

1. PREFACE

In the current era of education, there are many factors that can affect the quality of the education process for school- age students starting from elementary, junior high and high school. The right curriculum, complete school facilities, school accreditation and compliance with standards in accordance with educational goals are very necessary to be updated regularly. One concept of education that is currently also considered important and has actually been studied internationally for a long time is student involvement and a sense of ownership of the school.

School belonging is a multidimensional construct that connects the emotional and behavioral components, namely being valued, accepted and included in it [1]. Students' sense of belonging to their school has attracted the attention of several researchers and practitioners in recent years because it predicts a large number of discoveries in education and development. School belonging also positively contributes to a number of factors that help improve academic functioning, mental health and well- being [2], [3]. However, although many scientists and educators have realized the importance of school belonging to student achievement, research in classroom and school environment interventions is still relatively rare. Finally, there are several strategies and interventions available for schools to target increasing school belonging.

School belonging is determined by various factors, including academic achievement and motivation, personal characteristics, social relationships, demographic characteristics, school climate, and participation in extracurricular activities. Several studies [2], [4], [5] found that school belonging has a significant impact on students because it is consistently associated with academic outcomes, psychological adjustment, well-being, identity formation, mental health, and physical health. fundamental aspects of student development. A sense of belonging to school is considered very important for adolescents as they are in transition and identity formation, and research has found that sense of belonging to school declines significantly during this period [2], [4].

School belonging
Goodenow and Grady [6] conceptualize student involvement with school as school belonging. In Indonesian, school belonging is translated as school ownership, but because this concept is not yet common, the initial concept of school belonging will still be used. Allen et al. [4] describe school belonging as a condition when students feel personally accepted, valued, involved and supported in the school's social environment. Another explanation of school belonging is that this concept involves a feeling of being connected to and attached to the school. Conversely, when students do not feel an attachment to their school, they will feel alienated and not become school citizens [7]. Other concepts that are connected to one another with school belonging are school connectedness, school attachment, school membership and school engagement [5], [8], [9].

Research conducted by the Program for International Student Assessment (PISA) has investigated the sense of belonging and dissatisfaction with students around the world since 2003 showing that many students have a low sense of school belonging [7], [10]. Their most recent data collection took place in 2018 and involved approximately 600,000 students representing 32 million children aged 15 years (between 15 years 3 months and 16 years 2 months) from 79 countries. The results of this study reveal that most students around the world lack a strong sense of belonging to school. On average, one-third of all students surveyed felt that they were not part of their school [11]. In addition, they found that one in five students felt like an outsider at school and one in six reported feeling lonely. In most education systems, socio-economically disadvantaged students feel that they lack school [11]. The average schooling decreased by 2% between 2015 and 2018. The share of students who feel school-less (low school belonging) has increased since 2003 reflecting a downward trend in school ownership globally [5], [7].

School belonging tends to decrease as students age, as shown in several different research studies. In one study involving students from Latin America, Asia, and Europe, Gillen-O'Neel and Fuligni [10] found that in childhood, students generally reported high levels of school ownership. However, once students transition to middle school and adolescence, their perception of a sense of belonging to school drops significantly. Similarly, a separate study conducted by Newman et al. [12] found that students' sense of belonging to school decreased in the transition from junior high school to senior high school; these students also showed an increase in depressive symptoms and a decrease in social support, which could be considered a cause or consequence of a decreased sense of belonging to school. This trend has been replicated in many other studies showing that sense of belonging to school declines after students reach adolescence [12], [13].

Factors affecting school belonging
A meta-analysis of 51 studies [2] identified that there are several individual and social factors that influence school belonging which include academic factors, personal characteristics, social relationships, demographic characteristics, school climate and extra-curricular activities. For the many determinants of school belonging, it is likely that each has a reciprocal relationship with student belonging. That is, they operate as either antecedents or consequences.

Academic factors. Research has documented the influence of academic factors (i.e., achievement, motivation, hardiness, school interest) on students' school ownership [2], [14]. Academic achievement, or a person's skills and competencies in school, has been identified as a substantial predictor of school ownership. For example, research has shown that student grade point average (GPA), a common measure of academic achievement, is positively related to school ownership. That is, students who have higher GPAs have higher levels of school ownership [5]. The study also found several measures of academic motivation to be determinants of a student's school. Academic motivation includes behaviours such as completing homework, setting goals, expectations of success, and effort and involvement in the classroom [15]. Goodenow and Grady [6] found each of these sub-sections of academic motivation to be a significant predictor of students' perceptions of school. More recent research has replicated these findings, showing that academic motivation plays an important role in developing school belonging [5]. In addition, students' perceived value about school affects their sense of school ownership: when they perceive their assignments and education as lessons, meaningful, and valuable, they are more likely to report greater school ownership [15].

Personal characteristics. Personal characteristics refer to the distinctive qualities, traits, personality, emotions, and attributes of students, and have been consistently identified as substantial determinants of school ownership [2], [5]. Personal characteristics can be classified as positive or negative. Positive personal characteristics such as self- esteem, self-efficacy, positive influence, and effective emotion regulation have been shown to help foster a sense of belonging in students in school. Ma [16] found that students' self-esteem had the greatest impact on school belonging compared to all other personal factors. Conversely, negative personal characteristics such as anxiety, depressive symptoms, increased stress, negative affect, and mental illness can decrease students' perceptions of school ownership [5]. Emotional instability is also said to affect school ownership by negatively affecting students' educational experiences [2].

Social relationships. According to Allen and Kern [5], social relationships affect how students develop school belongingness in school. The social relationship in question is how intense the social relationships and interactions that can be formed by students during academic activities at school. Meanwhile, research conducted by Slaten et al. [17] found a large positive correlation between school ownership and positive social relationships with peers, teachers, and parents. Support, acceptance, and encouragement from these social sources can help students develop a feeling that they are connected to their school and identify with their school [2], [5].

Friends of the same age. Peer relationships have been identified as direct contributors to student-owned school development. According to Osterman [18] and Slaten et al. [17], positive social relationships with peers involve feelings of acceptance, connection, encouragement,academic and social support, trust, closeness, and caring. Such qualities in

peer relationships can significantly facilitate students' feelings about school. When students are rejected or not supported by their peers, they may experience anxiety, stress, and alienation [17]. This changes their perception of school because the school environment now seems unpleasant and distressing, making it more difficult to identify and connect with the school [2], [5].

Parent. The relationship with one's parents can have significant implications for a student's sense of school, given that parents usually provide a student's first social connection. Positive parental relationships include parents who provide academic and social support, healthy communication, encouragement, affection, acceptance, and security [19]. Such qualities in parent-child relationships have been shown to foster a sense of belonging in students at school by influencing the relationship they feel with their school environment [2].

Teacher. Teachers have been identified as important contributors to students' feelings of belonging in schools. Several academic studies [2], [7] have identified teacher support as the strongest predictor of school ownership compared to support from peers or parents. Teachers can help build sense of belonging by developing a safe and healthy classroom climate, providing academic and social support, fostering respect for others, and treating students fairly. Teachers also can increase feelings of belonging to the school by being friendly, approachable, and trying to connect with their students [5]. Teaching practices that seem to increase school belongingness in schools are assembling learning, praise for positive behaviour and performance that allows students to have autonomy in the classroom, and teaching practices using high expectations for students [2], [5], [7].

Demographic characteristics are also associated with differences in school belongingness consisting of aspects of gender, race and ethnicity, school climate and extracurricular activities.

Gender. The relationship between gender and school belonging is largely dubious because several studies have yielded conflicting results. Previous research have found gender differences in perceived school belongingness by showing that women have a higher sense of belonging to school than men [5], [18]. Meanwhile, another study found the opposite effect and concluded that males have higher school belongingness than females [20]. Other research such as that conducted by Libbey [9] shows that school ownership is not at all influenced by gender.

Race and ethnicity. Similar to gender, several studies on the influence of race and ethnicity on school belonging have found a significant relationship between the two, while other studies contradict this finding [5]. For example, a study conducted by Bonny et al. [20] found that black students experienced lower feelings of school compared to white students, but other studies found the opposite pattern or found no significant effect of race on school belongingness at all [5].

School climate. The school climate can have significant consequences for students who feel like they are at school. School climate broadly refers to feelings associated with the school environment and quality; it is considered to have physical (e.g. building adequacy), social (e.g. interpersonal), and academic (e.g. quality of teaching) dimensions. School climate affects the sense of belonging to the school through the support (or lack thereof) of students' feelings of connection and attachment to their school [4], [16]. One important aspect of school climate is school safety, i.e., how safe students feel at school [16]. It includes variables

such as school safety policies, use of discipline, prevalence of bullying, and fairness. School safety is considered an important determinant of school ownership. Higher perceptions of school safety are associated with students who have a greater sense of belonging to the school.

Extracurricular activities. Research has shown that engaging in extracurricular activities can positively influence students' perceptions of school ownership [17]. For example, in a study by Knifsend and Graham [21], found that students who participated in two extracurricular activities reported greater feelings of belonging to school compared to students who participated in less than two activities. Other studies have replicated this relationship, highlighting the importance of participating in extracurricular activities to develop a sense of belonging to the school. Extracurricular activities according to Allen et al. [16] can affect the sense of belonging to the school by providing collaborative and long-term interactions between students and their peers.

Additional research has proven that the relationship between students and teachers will provide a strong foundation for increasing school belonging [2]. However, creating strong student-teacher relationships certainly faces challenges. It is possible for teachers to feel pressured by schedules, the variety of responsibilities associated with their roles and hampered by system problems. However, building relationships between students and teachers will provide strategies that can support achievement, low costs and are ready to be implemented in order to build a school belonging culture. In several studies on school belonging, the relationship between teachers, schools and students is considered important and will then focus specifically on the concept of school belonging [2]. School belonging can be supported through evaluation and intervention, especially when identifying the importance of the teacher's role and the challenges of establishing relationships between students and teachers in improving school belonging. In general, this school belonging can also be developed in its application at universities to help improve student achievement.

2. RESEARCH METHOD
Participants
826 students from four private schools (One junior and three Senior High School) in Jakarta participated in the study. The data collection was carried out with the assistance of homeroom teachers from each school. The teacher shares the survey link to the student in the class. Table 1 shows the demographic characteristics of the participants in the study.

Measurement
School Belonging
School belonging is measured using Psychological Sense of School Membership Scale (PSSM) which was developed by Goodenow [22]. PSSM measures students' perceptions of ownership of their school using 18 items. One example item from PSSM is "I feel really a part of my school". Participants will respond to statements with a 5-point Likert Scale (1 = Not at all correct, 5 = Completely correct). After the negative items were recoded, the scores were totalled to see how far the participants felt they belonged to their school. Internal reliability in the current study was good (McDonald's $\omega=0.87$, Cronbach's $\alpha=0.87$).

Socio-Demographic Information
This section consists of several questions regarding the personal situation of the participant, including (a) age, (b) sex, (c) grade (7-12), (d) majors (if available, such as: natural science, social science, language, other), (e) reason for attending the school, (f) perception of

convenience in the implementation of online learning, (g) device used during online learning, (h) perception of internet quality during online learning, (i) learning preference (face-to-face, online learning, or hybrid), (j) favourite subject at school, (k) school friends, (l) favourite teacher and reasons, and (m) active status in school organization or extracurricular activities.

Procedure

There were four private schools in Jakarta that participated in the study (one junior high school, two regular high schools, and one vocational high schools). Consent was obtained from two parties: (a) the schools, before the survey link was distributed to the participant via homeroom teacher, and (b) the participant, after they read the information about this study, they fill the informed consent section before forwarded to the data collection section. After giving the consent, participants were forwarded to the personal and socio-demographic information page. After that they were asked to respond to the PSSM.

Statistical Analysis

The obtained data was checked for the missing or duplicate response. Statistical analysis was performed using JASP v.0.14.1. Mean and standard deviation analysed to find the school belongingness of the participant in general. Then we analysed the school belonginess separately based on the socio-demographic information and also students from each school. The significance of mean difference of school belongingness between the socio-demographic information analysed using independent t-test and one-way ANOVA Between Subjects.

Table 1

Participant demographic

Characteristics	N = 826	%	Characteristics	N=826	%
Sex	**Class**				
Male	352	42.62	7	119	14.41
Female	472	57.14	8	131	15.86
N/A	2	0.24	9	2	0.24
			10	285	34.50
Age			11	170	20.58
11	2	0.24	12	116	14.04
12	47	5.69	N/A	3	0.36
13	120	14.53			
14	78	9.44	**Major**		
15	173	20.94	No majors yet	254	30.75
16	217	26.27	Natural science	223	27.00
17	136	16.46	Social science	164	19.86
18	39	4.72	Accountant	56	6.78
19	9	1.09	Software Engineering	84	10.17
20	1	0.12	Automation & Office Governance	37	4.48
N/A	4	0.48	N/A	8	0.97

(Table 1 Continuation)

Characteristics	N=826	%	Characteristics	N=826	%
Reason for choosing school			**Favourite subjects**		
Facility and Quality	222	26.88	None	27	3.27
Parents	200	24.21	Physical Education	206	24.94
Same foundation with	193	23.37	History	57	6.90
previous school Biology 61					7.38
Favorite School	32	3.87	Chemistry	19	2.30
Distance from home	140	16.95	Physics	9	1.09
Recommendation from	9	1.09	Mathematics	87	10.53
family/friend					
			Sociology	t	1.69
Available major	6	0.73	Geography	15	1.82
Financial reason	3	0.36	Indonesian language	36	4.36
Others	16	1.94	English language	154	18.64
N/A	5	0.60	Chinese language	31	3.75
			Citizenship	23	2.78
Perception of online learning			Arts & Culture	26	3.15
Very inconvenient	21	2.54	Economics	6	0.73
Inconvenient	101	12.23	Religion	4	0.48
So-so	472	57.14	Computer/Programming	12	1.45
Convenient	178	21.55	Design	4	0.48
Very convenient	52	6.30	Public relations	2	0.24
			More than one	17	2.06
Device for online learning			N/A	16	1.94
Laptop/PC	475	57.50			
Smartphone	312	37.77	**Favorite teacher**		
Tablet	19	2.30	None	124	15.05
Mixed	20	2.42	Have	**700**	**84.95**
			Teaching style	*228*	*27.60*
Internet quality during online learning			*Communication style*	*253*	*30.63*
Poor	13	1.57	*Listening skill*	*14*	*1.69*
Bad	86	10.41	*Care*	*78*	*9.44*
Neutral	456	55.21	*Kind*	*85*	*10.29*
Good	236	28.57	*Shared interest*	*1*	*2.06*
Excellent	35	4.24	*Subjective*	*2*	*0.24*
			More than one	*2*	*0.24*
Learning Preference			*All the above*	*21*	*2.54*
Online learning	226	27.36	*N/A*	*2*	*0.24*
Face-to-face	345	41.77			
Hybrid	254	30.75	**Organization/Activities at School**		
N/A	1	0.12	None	218	26.39
			1	330	39.95
School friend 2 203					24.58
None	36	4.36	3	50	6.06
Have	788	95.40	4	14	1.69
N/A	2	0.24	5	6	0.73
			N/A	5	0.60

3.   RESULTS AND DISCUSSIONS

In general, participants feel that they belong in their respective school (*M*=3.40*, SD*=0.54) while participating in learning activities during pandemic COVID-19. We further analysed the school belongingness of the participants across socio-demographic characteristics. The result found that in most characteristics, participants showed satisfactory school belongingness, however participants that choosing the school based on financial economy

(M=2.63, SD=0.64), perceived that they have poor internet quality during online learning (M=2.99, SD=0.64), and less interaction with peers (M=2.87, SD=0.62) showed slightly lower school belongingness.

We further tested whether there were significant mean differences between participants' school belongingness across socio-demographics. Results showed that there was no significant difference in school belongingness in terms of sex, class, major, and device used during online learning (p≥0.05). The results of the analysis showed a significant difference in the mean on six different aspects. There is a significant difference in school belongingness if it is seen from the reasons for choosing a school, the reason for contributing is 9% at the school belongingness level (F=10.29, p<0.001, ²=0.09). In addition, students' perceptions of the implementation of online learning also contributed 2% to students' school belongingness (F=3.27, p<0.01, ²=0.02). Activity in school organizations or activities also contributed 5% to the school belongingness level (F=7.71, p<0.001, ²=0.05). The presence or absence of favourite teachers and school friends also distinguishes the level of school belongingness of students. With their favourite teachers and school friends, students have higher school belongingness. The difference effect of having a favourite teacher is moderate (t=-7.90, p<0.001, d=-0.77), while the effect of having schoolmates is strong (t=-6.27, p<0.001, d=-1.07).

Table 2
Mean, sd, and significance of mean differences between socio-demographic characteristics

Characteristics	N	M	SD	MD
Overall School Belongingness	826	3.40	0.54	
Sex				$t=-0.09, p\geq0.05$
Male	352	3.40	0.53	
Female	472	3.41	0.54	
Grade				$F=2.23, p\geq0.05$
7	119	3.35	0.57	
8	131	3.51	0.55	
9	2	3.42	0.20	
10	285	3.40	0.55	
11	170	3.33	0.51	
12	116	3.47	0.46	
Major				$F=1.05, p\geq0.05$
No majors yet	254	3.43	0.57	
Natural science	223	3.39	0.53	
Social science	164	3.45	0.54	
Accountant	56	3.33	0.49	
Software Engineering	84	3.32	0.52	
Automation & Office Governance	37	3.41	0.49	
Reason for choosing school				$F=10.29, p<0.001, \eta^2=0.09$
Facility and Quality	222	3.57	0.48	
Parents decision	200	3.19	0.53	
Same foundation from previous school	193	3.43	0.53	
Favorite School	32	3.66	0.55	
Distance from home	140	3.39	0.52	
Recommendation from family/friend	9	3.81	0.51	
Available major	6	3.01	0.44	
Financial reason	3	2.63	0.64	
Others	16	3.28	0.60	

(Table 2 continuation)

Perception of online learning				$F=3.27,$	$p<0.01,$
Very inconvenient	21	3.18	0.71	$\eta^2=0.02$	
Inconvenient	101	3.39	0.59		
So-so	472	3.38	0.50		
Convenient	178	3.52	0.49		
Very convenient	52	3.36	0.74		
Device for online learning				$F=0.81,$	$p\geq0.05$
Laptop/PC	475	3.43	0.55		
Smartphone	312	3.37	0.51		
Tablet	19	3.33	0.63		
Mixed	20	3.44	0.56		
Internet quality during online learning				$F=18.43,$	$p<0.001,$
Poor	13	2.99	0.64	$\eta^2=0.08$	
Bad	86	3.32	0.60		
Neutral	456	3.31	0.51		
Good	236	3.56	0.50		
Excellent	35	3.87	0.51		
Learning Preference				$F=6.87,$	$p<0.001,$
Online learning	226	3.30	0.56	$\eta^2=0.02$	
Face-to-face	345	3.43	0.53		
Hybrid	254	3.41	0.51		
Favorite teacher				$t=-7.90,$	$p<0.001,$
None	124	3.07	0.45	$d=-0.77$	
Have	700	3.46	0.53		
School friend				$t=-6.27,$	$p<0.001,$
None	36	2.87	0.62	$d=-1.07$	
Have	788	3.43	0.52		
Organization/Activities at School				$F=7.71,$	$p<0.001,$
None	218	3.26	0.54	$\eta^2=0.05$	
1	330	3.39	0.51		
2	203	3.54	0.50		
3	50	3.50	0.65		
4	14	3.65	0.59		
5	6	3.77	0.66		

This study shows that the relationship between teachers and students has a moderate influence on school belongingness. Students who have a favorite teacher tend to feel closure to the school and it is show similarity with previous study. Accordance with research conducted by Chiu et al. [23] large-scale study that examined school belonging from 193,073 15-year-old students from 41 countries found that *teacher–student relationships* had the strongest link with sense of school belonging (in [24]). Strong teacher-student relationships create a positive learning atmosphere, mutual respect for each other, support and facilitate students in the learning process, and make it easier for teachers to approach and provide assistance to students.

According to research conducted by Hamm and Faircloth [25], they found that their participants viewed friendship as providing a buffer to otherwise disengaging school environments. Specifically, they found that young people benefitted from their friendships as they allowed them to cope with unstimulating school settings and feelings of alienation or a

lack of larger group membership. This research builds on previous work that demonstrated that when youth possess secure friendships, they can invest themselves more fully in school activities and to explore new settings [26]. Supported by this research that shows strong effect of student relationships with their classmates to foster a sense of school belonging because adolescent students still really need peers as the closest circle of support because of the need to explore the environment and the same developmental task of finding self-identity in the transition period towards adulthood.

In general, this study found that having a positive relationship with peers and teachers will build attachment and sense of belonging through the academic process. Connected to research conducted by Slaten et al [17] found a large positive correlation between school ownership and positive social relationships with peers, teachers, and parents. Support, acceptance, and encouragement from these social sources can help students develop a feeling that they are connected to their school and identify with their school [2], [5]. Emphasized by Wallace et al. (in Bouchard and Berg [24]) considerably smaller study also indicated that adolescents' school belonging could be explained through students' generalized connection to teachers, connection to a specific teacher, and perception of fitting in with peers which indicated that adolescents' perceptions of "feeling known" by their teachers impacted their sense of school belonging positively.

Fredricks and Eccles [27] indicated that the benefits of extracurricular participation, including sports and structured events, related positively to school belonging. a study by Knifsend and Graham [21] also found that students who participated in two extracurricular activities reported greater feelings of belonging to school compared to students who participated in less than two activities. Extracurricular activities according to Allen et al. [4] can affect the sense of belonging to the school by providing collaborative and long-term interactions between students and their peers. Similar to this study also found that students' involvement in extracurricular and organizational activities also influenced their sense of school belongingness. The form of student participation in various extracurricular activities will help establish relationships and interactions with peers and accompanying teachers. Student activities in intra- school organizations also form a longer closeness than students who are not active at all.

4. CONCLUSION AND RECOMMENDATIONS
Limitations of this study is the classification of schools of participants. This study only involved five private schools in Jakarta so the generalisation of the result is limited. The criteria for participants who have different socio-economic backgrounds, cultural factors, and aspects of the completeness of school facilities still cannot be controlled. For further research, it would be suggested to be carried out in a larger scope, involving private and public schools, and applying the differences in various demographic factors specifically.

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