eCitizen Education 數碼素養 360

Parent-Child Communication and Relationship are Key to Students' Wellbeing at Home and in School

Parental participation in school activities predicts children's online learning

Good **parent-child relationship** is the single most important factor for a **child's wellbeing**

Parents from **lower SES backgrounds** are more likely to rely on schools for **parenting support**

In [Bulletin 1](#), we reported the importance of e-learning preparedness before school-suspension, including emphasis on student-centred pedagogies and integration of e-learning strategies into schools' overall development plans, on a school's ability to transition effectively to online learning during the COVID-19 induced school suspension. In [the second bulletin](#), we zoomed into the e-learning coordinator survey and investigated key features of schools' online learning preparedness. We found that the membership and roles of the e-learning coordination team, and teacher professional development provisions constitute the most important school-level implementation indicators. In [the third bulletin](#), we identified four typical groupings of teachers based on their perceptions and attitudes towards online learning and teaching innovations. Findings show that teachers' engagement in online teaching-related collaboration in school is the best predictor of their online teaching preparedness. In [Bulletin 4](#), we examined the role of specific leadership practices in promoting online teaching and learning (T&L) preparedness. We reported two typical groupings of school leaders based on their general leadership orientations and three types of school leaders derived from an analysis of their e-learning related perceptions. In this bulletin, we shift our attention to examining parenting practices and their relationships with students' well-being. The specific questions we investigate are:

Learning and Assessment for DIGITAL CITIZENSHIP

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Key factors influencing school level online learning preparedness

Bulletin 2:

- e-learning **team members**, **roles** and **functions**
- Prioritizing **teacher professional learning** and **support**
- **Technology infrastructure** & **pedagogy** for student empowerment

What matters for e-learning at school level

Multi-level school leadership for online learning preparedness

Bulletin 4:

- Participation in joint-school **student-centered** innovation projects
- Foster a **culture** of trust, collaboration and openness to innovation
- Support **middle-level managers** in **solving problems** encountered in the process of innovation
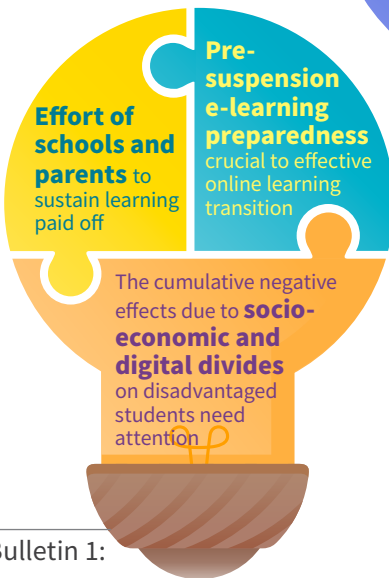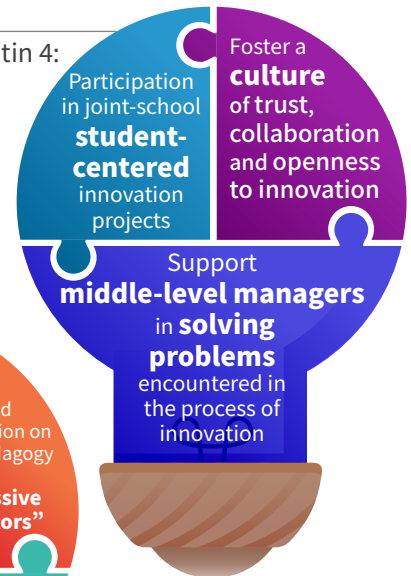
Outcomes and challenges of online learning during school suspension

Bulletin 1:

- **Effort of schools and parents** to sustain learning paid off
- **Pre-suspension e-learning preparedness** crucial to effective online learning transition
- The cumulative negative effects due to **socio-economic and digital divides** on disadvantaged students need attention

Key factors influencing online-learning preparedness for teachers

Bulletin 3:

- Encourage the **use of online learning platforms** and digital resources for **student-centered interactive learning**
- Promote teacher sharing and collaboration on online pedagogy to nurture **"Progressive Innovators"**
- Focus teacher professional learning provisions on fostering **higher-order thinking, e-assessment** and **digital feedback**


Bulletin 5:

Research questions for this bulletin

1 How do surveyed parents differ in terms of their parenting practices, and are the variations related to the level of schooling of their children (primary or secondary) and/or their socioeconomic status (SES)?

2 How are parenting practices related to parents' and students' wellbeing during the school suspension period?

3 What are the key risk and protective factors of students' wellbeing during school suspension?

4 Do parenting practices vary across schools, and if so, which school and/or teacher indicators predict such differences?

Research design

Figure 1 depicts the conceptual framework that informs our analysis for this bulletin. The framework involves two sets of key indicators, namely parenting practices and student well-being during school suspension (which includes students' online engagement and perceptions, as well as learning and well-being outcomes), and four other sets of indicators (parental well-being, student background indicators, family SES, and school and teacher online preparedness). We address four important research questions in this bulletin involving these indicators. First, we conceptualize that parents vary in their practices, so we seek to identify patterns of parenting practices for the surveyed primary and secondary parents, and investigate whether and how SES influences parenting behaviour. Second, we examine how parenting practices are related to the well-being of students and parents during school suspension. Third, we

Figure 1. Conceptual framework which informs the analysis of this bulletin
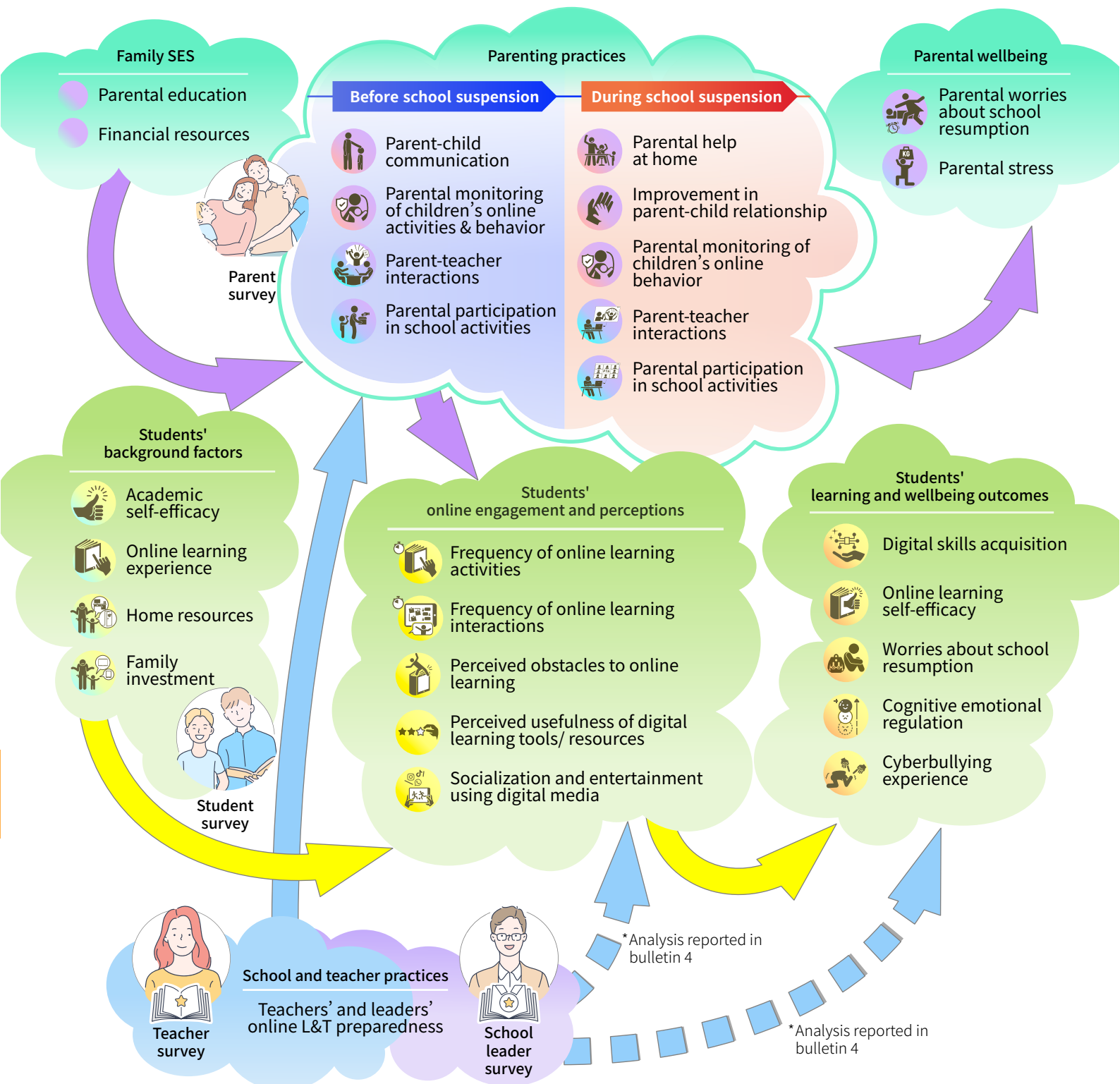
identify factors that are protective or risk factors for students' well-being (i.e. factors that contribute to or compromise students' well-being). Results from this line of inquiry complement those of the second research question to yield useful insights on what parents and students can do to enable optimal student learning under challenging circumstances. The last research question investigates how school and teacher factors influence parenting practices during school suspension. This inquiry enables us to identify points of leverage for school leaders and teachers to focus on to better support parents and students for online learning.

Findings to the four research questions provide comprehensive understanding on how parents, school leaders, and teachers contribute to students' well-being during the pandemic-induced school suspension.

Sample

Our sample comprises 6505 students (1292 primary and 5213 secondary) and 2383 parents (770 from primary and 1613 from secondary schools). The data includes matched parent-child survey data involving 932 (58%) secondary students and 186 (24%) primary students for investigating the relationships between parental involvement and children's wellbeing and development.
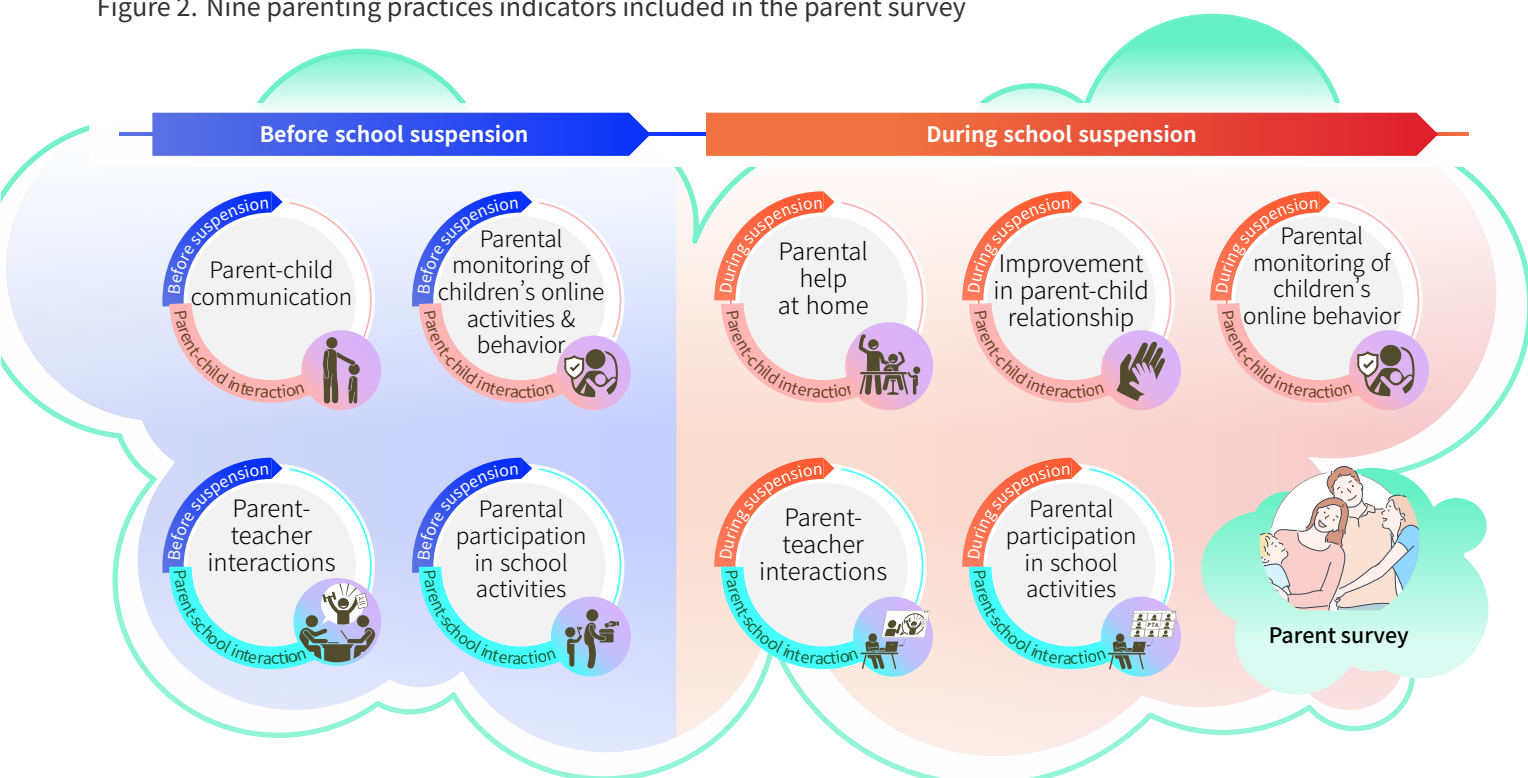
Parenting practices

Parenting practices indicators

A major focus of the parent survey is on parenting practices, with a total of nine indicators (see Figure 2), four concerning parenting practices *before school suspension* (those on the blue shaded background), and five pertaining to parenting practices *during school suspension* (those on the orange shaded background).

Figure 2. Nine parenting practices indicators included in the parent survey

- Among the four parenting practices *before school suspension*, two are related to parent-child interactions (with salmon brim):
  - *Parent-child communication* measures the extent to which parents communicate with their children about school learning, non-academic activities, and interactions with teachers and classmates;
  - *Parental monitoring of children's online activities & behavior* measures the extent to which parents monitor their children's online behavior, such as screen time, apps used, and posting on social media.
- The other two parenting practices indicators *before school suspension* pertain to parent-school interactions (with cyan brim):
  - *Parent-teacher interactions* measures the extent to which parents interact with teachers, such as discussing their children's school performance;
  - *Parental participation in school activities* measures the extent to which parents participated in school activities, including attending parent-teacher meetings and participating in extracurricular activities organized by the school.
- Of the five parenting practices *during school suspension* (those on the orange shaded background). Three relate to parent-child interactions and relationships (with salmon brim):
  - *Parental help at home* measures the extent to which parents help with their children's online homework, technical issues related to online learning, as well as non-academic problems;
  - *Improvement in parent-child relationship* measures the extent to which parents perceived an improvement (or otherwise) in their understanding of their children's personality, learning at school, and ability;
  - *Parental monitoring of children's online behavior* measures the extent to which parents monitor their children's online behavior (e.g. screen time, the apps their children used, and the children's postings on social media).
- The remaining two parenting practices indicators *during school suspension* pertain to parent-school interactions, which are similar to those *before school suspension*, except that many of these interactions were conducted online instead of face-to-face (with cyan brim):
  - *Parent-teacher interactions* measures the extent to which parents communicated with teachers, such as discussing their children's school performance;
  - *Parental participation in school activities* measures the extent to which parents participated in school activities, including attending parent-teacher meetings and participating in extracurricular activities organized by the school.

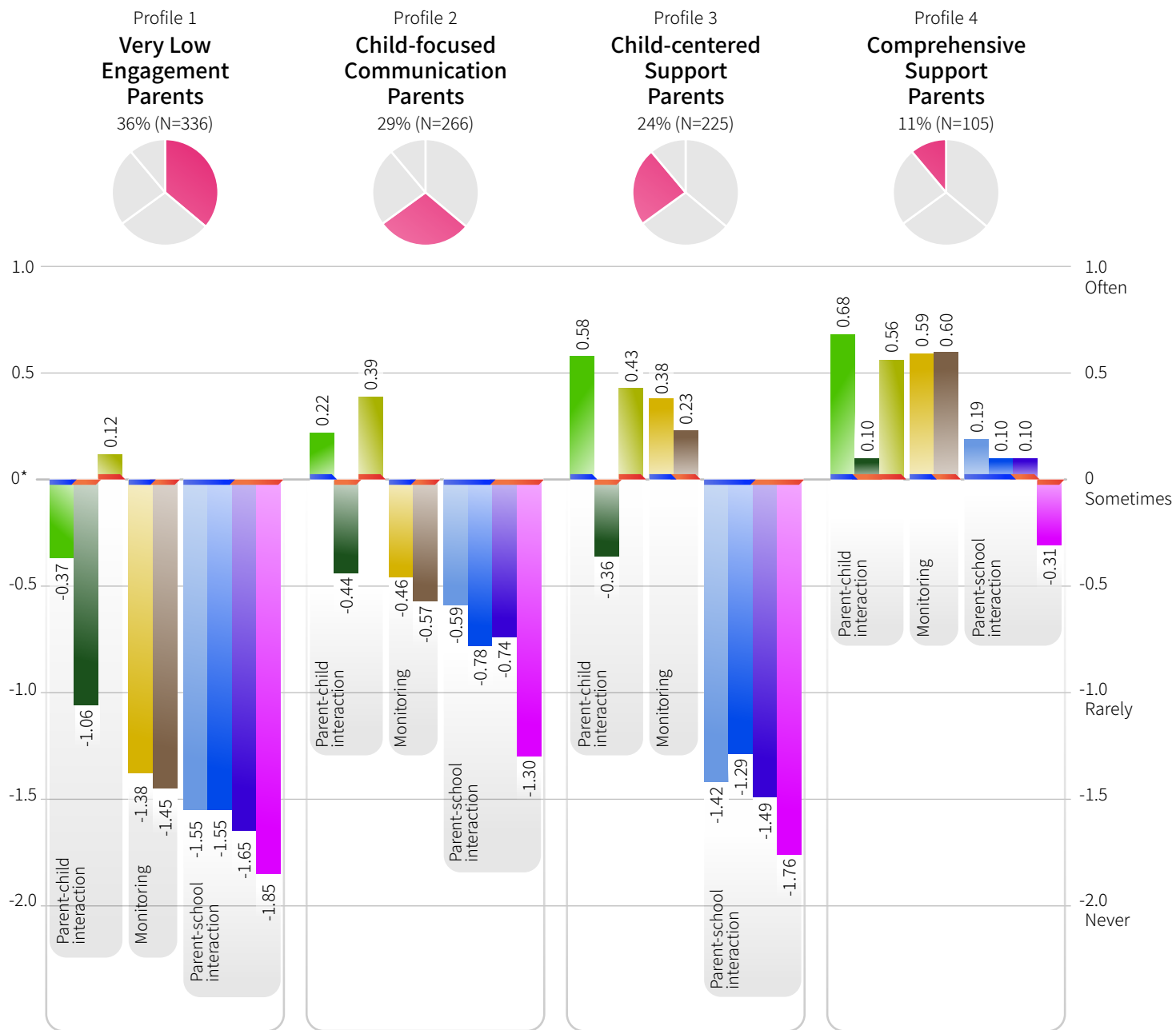## Profiles of parenting practices

We explored whether there are patterns of parenting based on parents' practices before and during school suspension using the nine indicators described above using latent profile analyses (LPA). The analysis was carried out separately for secondary and primary parents.

Secondary parents' parenting practices profiles   ⓢ

Four profiles of parenting practices are identified among secondary parents, as summarized in Figure 3 on next page. Profile 1 parents (**Very Low Engagement Parents**), comprising more than one third of the parents, have very low levels of involvement with their children or their children's schools. Parents belonging to profile 2 (**Child-focused Communication Parents**) (29%) show reasonably good communication and relationship with their children, but their level of involvement otherwise remains low. Profile 3 parents (**Child-centered Support Parents**) (24%) engage in monitoring and support. They also communicate and maintain good relationships with their children, but their involvement with their children's schools and teachers are quite low. Profile 4 parents (**Comprehensive Support Parents**), comprising about one-tenth of surveyed parents, exhibit the highest level of support and involvement in all aspects and also have the best relationship with their children.

Figure 3. Recentered predicted means of parenting practices indicators for the four latent secondary parents profiles

Profile 1
Very Low Engagement Parents
36% (N=336)

Profile 2
Child-focused Communication Parents
29% (N=266)

Profile 3
Child-centered Support Parents
24% (N=225)

Profile 4
Comprehensive Support Parents
11% (N=105)

*0 indicates middle level. Level of response:
 -2=Never, -1=Rarely, 0=Sometimes, 1= Often, 2=Always

Parent-child communication

Parental help at home

Improvement in parent-child relationship

Parental monitoring of children's online activities & behavior

Parental monitoring of children's online behavior

Parent survey

Parent-teacher interactions

Parental participation in school activities
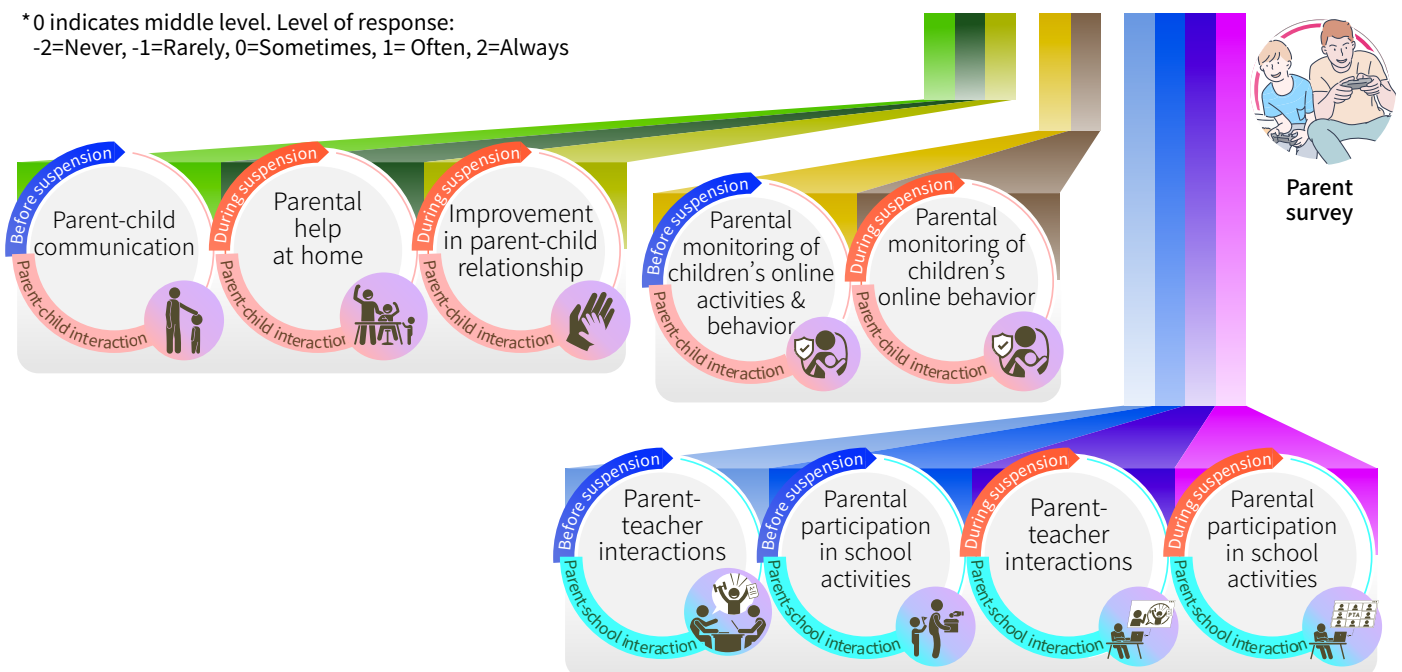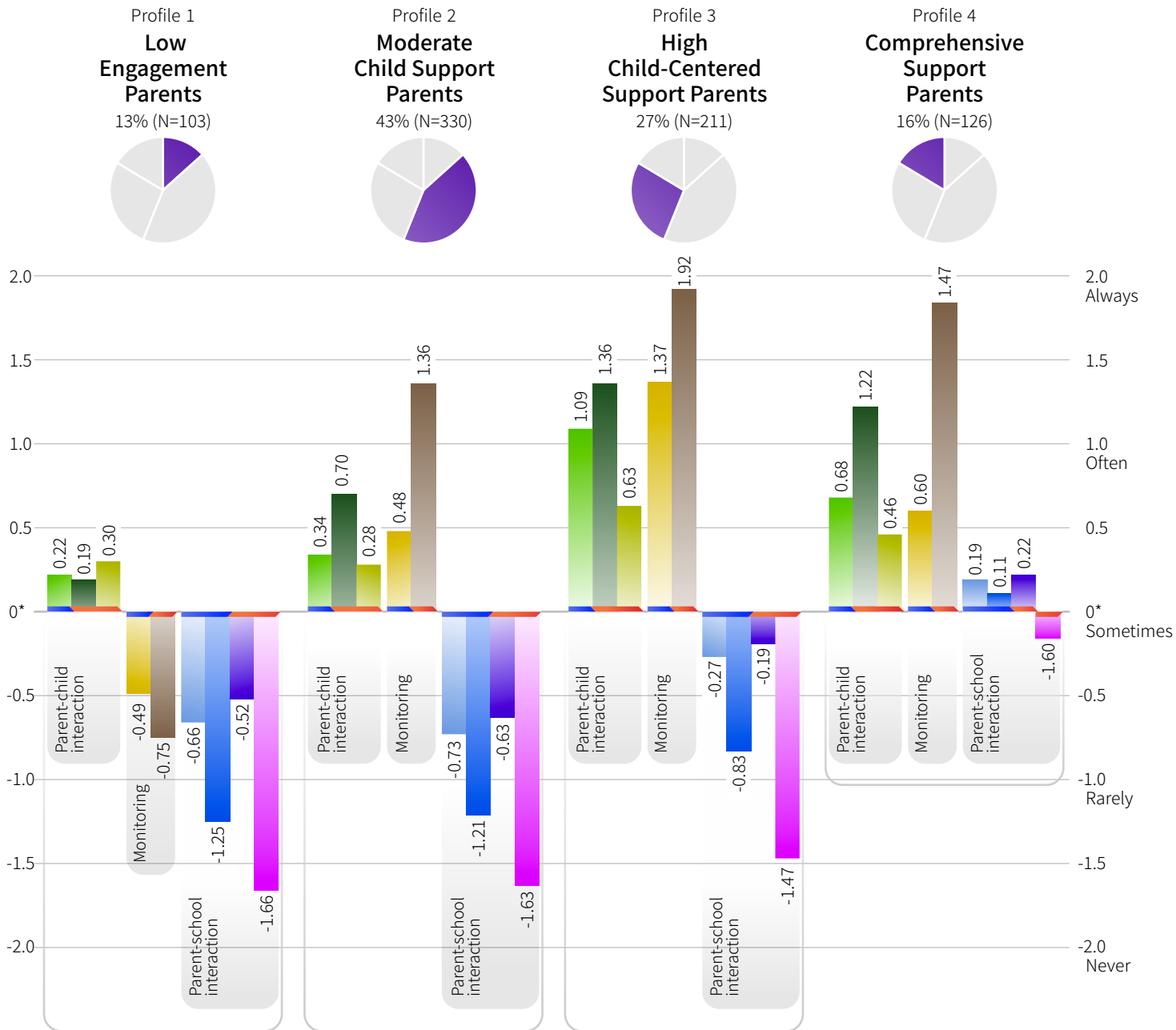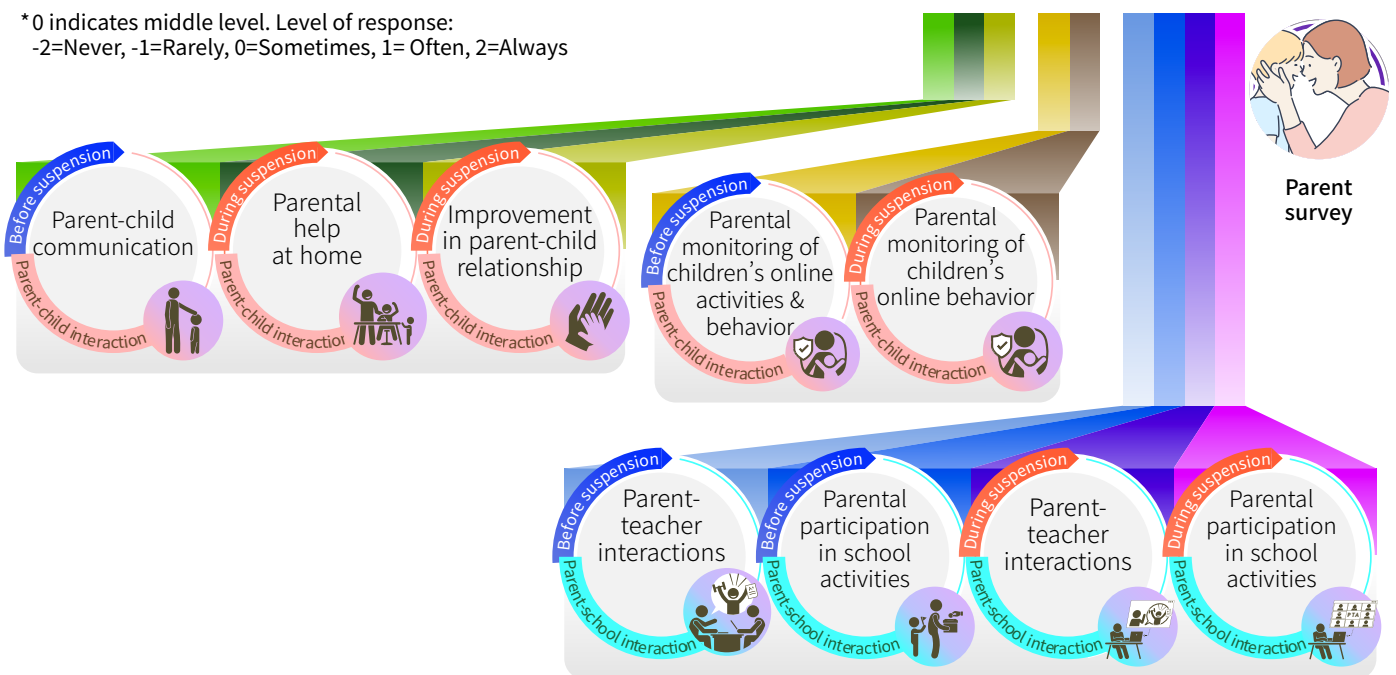
Parent-teacher interactions

Parental participation in school activities

Figure 4. Recentered predicted means of parenting practices indicators for the four latent primary parents profiles

Profile 1
Low Engagement Parents
13% (N=103)

Profile 2
Moderate Child Support Parents
43% (N=330)

Profile 3
High Child-Centered Support Parents
27% (N=211)

Profile 4
Comprehensive Support Parents
16% (N=126)

Profile 1 — Low Engagement Parents
- Parent-child interaction: 0.22, 0.19, 0.30
- Monitoring: -0.49, -0.75
- Parent-school interaction: -0.66, -1.25, -0.52, -1.66

Profile 2 — Moderate Child Support Parents
- Parent-child interaction: 0.34, 0.70, 0.28
- Monitoring: 0.48, 1.36
- Parent-school interaction: -0.73, -1.21, -0.63, -1.63

Profile 3 — High Child-Centered Support Parents
- Parent-child interaction: 1.09, 1.36, 0.63
- Monitoring: 1.37, 1.92
- Parent-school interaction: -0.27, -0.83, -0.19, -1.47

Profile 4 — Comprehensive Support Parents
- Parent-child interaction: 0.68, 1.22, 0.46
- Monitoring: 0.60, 1.47
- Parent-school interaction: 0.19, 0.11, 0.22, -1.60

Scale: 2.0 Always / 1.0 Often / 0* Sometimes / -1.0 Rarely / -2.0 Never

*0 indicates middle level. Level of response:
-2=Never, -1=Rarely, 0=Sometimes, 1= Often, 2=Always

Before suspension — Parent-child communication (Parent-child interaction)
During suspension — Parental help at home (Parent-child interaction)
During suspension — Improvement in parent-child relationship (Parent-child interaction)
Before suspension — Parental monitoring of children's online activities & behavior (Parent-child interaction)
During suspension — Parental monitoring of children's online behavior (Parent-child interaction)

Parent survey

Before suspension — Parent-teacher interactions (Parent-school interaction)
Before suspension — Parental participation in school activities (Parent-school interaction)
During suspension — Parent-teacher interactions (Parent-school interaction)
During suspension — Parental participation in school activities (Parent-school interaction)

Primary parents' parenting practices profiles

Results from the latent profile analysis for our sample involving primary school students and their parents yield four slightly different profiles, the characteristics of which are summarized in Figure 4 on page 7. The scale in the figure can be interpreted in the same way as in Figure 3 for the secondary parents. As with the secondary students' parents, profile 1 primary parents also show low levels of monitoring and support for their children, as well as low levels of involvement with their children's schools and teachers. Around one-eighth of the surveyed primary parents belong to this profile. Despite the low involvement, the parents with this profile are still more involved than the secondary profile 1 *Very Low Engagement Parents*, so we refer to this group of primary parents as **Low Engagement Parents**.

More than 40% of the primary parents were identified as belonging to profile 2 (**Moderate Child Support Parents**), which is associated with a moderate level of child monitoring and support, and low levels of involvement with their children's schools and teachers. Profile 3 parents (**High Child-Centered Support Parents**) (27%) show the highest level of monitoring, support, and communication and enjoy the best relationship with their children, whereas their involvement with school and teachers remains low. Profile 2 and profile 3 parents are similar to profile 3 secondary parents (*Child-centered Support Parents*) in their pattern of parenting. However, the levels of primary parents' involvement associated with these profiles are higher, particularly for parental help during school suspension.

Profile 4 parents (**Comprehensive Support Parents**) (16%) are characterized by high levels of support and involvement in almost all aspects, and they also maintain a good relationship with their children. The pattern of parenting associated with this profile is very similar to that for profile 4 in the surveyed secondary parents.

Primary parents exhibit more supportive practices than secondary parents

A comparison of the distribution of parents across the different parenting practices profiles shows that most primary parents (~70%) belong to profiles 2 *Moderate Child Support* or 3 *High Child-Centered Support Parents*. This contrasts with the case for the secondary school sample where most parents (~65%) are categorized as belonging to profile 1 *Very Low Engagement Parents* or profile 2 *Child-focused Communication Parents*. These results indicate that primary parents are generally more involved in communicating with and providing support to their children.
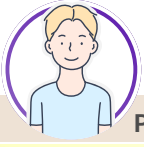
The influence of SES on parenting practices

In this section, we report on our analysis of whether and how parenting practices profiles are related to family SES as measured by a number of SES indicators based on student and parent survey responses respectively.

Surveyed students were requested to forward the invitation to their parents to participate in the parent survey. Only a fraction of the surveyed students' parents responded to the parent survey. For the surveyed secondary sample, 932 out of 1613 parents responding to the survey had matched a matching student survey responses (58%). The corresponding ratio for the surveyed primary sample was much lower: 186 out of 770 (24%) responding parents. We also investigate whether there are SES differences between students with matched parental survey responses (i.e., student-parent responses **matched group**) from those without (i.e., student-parent responses **unmatched group**).

Family SES indicators from the study survey

The student survey includes two sets of indicators pertaining to family SES: 🏠*home resources* and 🏠*family investment*. Home resources refer to the availability of physical resources in a student's home that facilitate learning (e.g., whether the student has his/her own room, a study desk, and a quiet place to study) but are difficult to change due to the greater economic implications. Family investment refers to the availability of resources invested that contribute directly to student learning (e.g., having access at home to a desktop/ laptop/ tablet/ smartphone, and the number of books at home), which can be more easily changed through priorities in family spending.

Table 1. Mean scores of home resources and family investment between matched and unmatched sample groups for primary and secondary school students

	Secondary school students		Primary school students	
	Home Resources* Mean[1] (SD)	Family Investment* Mean[1] (SD)	Home Resources Mean[1] (SD)	Family Investment* Mean[1] (SD)
Availability of matched parent survey response				
Unmatched	-0.020 (0.731)	-0.032 (0.714)	0.002 (0.648)	-0.018 (0.644)
Matched	0.086 (0.659)	0.139 (0.661)	-0.011 (0.643)	0.102 (0.564)

1. 0 represents the sample mean.

2. * indicates significant difference in the specific SES indicator between students with unmatched parental survey responses from those with matched responses at p< 0.05 level.

Are there differences in family SES between students with matched parent survey responses and those without?

Two-parameter item response theory (IRT) models were used to calculate home resources and family investment measures for the primary and secondary student samples separately for those with student-parent responses matched- and those that are unmatched (See Table 1). For the primary students, there is no significant difference in levels of home resources between these two groups. However, the matched group has a significantly higher level of family investment (t(277.66) = -2.62, p <.05).

For the secondary students, the matched group has significantly higher levels of home resources (t(1497.8) = -4.322, p <.05) and family investment (t(1467.2) = -7.0165, p<.001). These results indicate that surveyed students in the matched sample are more likely to have more home resources and higher home investment for their learning.

Parenting practices profile of secondary parents and their SES ————————————⑤

Table 2 on next page presents the mean parent education level as well as the percentages of the parents indicating receiving some form of subsidy and experiencing hardship during the school suspension period for parents belonging to each of the four parenting profiles respectively. The results show that for the parents of secondary students, their education levels across the four profiles of parenting practices were not significantly different. However, a significantly smaller proportion of *Child-centered Support Parents* (profile 3) receive government subsidies whereas a significantly greater proportion of *Comprehensive Support Parents* (profile 4) experienced financial hardship during the pandemic. Given that profile 3 parents showed very low levels of involvement with schools and teachers (the converse being true for profile 4 parents), our results suggest that parents with less financial resources are more likely to reach out to their children's schools and teachers.

In addition to the three parent-reported SES indicators discussed above, we also examine cross-profile differences in levels of *home resources* and *family investment* using data reported by the students (as reported in Table 3 on next page).

Compared to *Very Low Engagement parents* (profile 1), *Child-centered Support Parents* (profile 3) appeared to possess significantly more home resources; they were significantly more likely to invest on their children's learning resources than both *Very Low Engagement parents* (profile 1) and *Child-focused Communication Parents* (profile 2), as reflected by their children's survey responses.

Table 2. Socioeconomic indicators of the four secondary school parenting latent profiles

Parent survey	Profiles of parenting practices	Profile 1 Very Low Engagement Parents	Profile 2 Child-focused Communication Parents	Profile 3 Child-centered Support Parents	Profile 4 Comprehensive Support Parents
Education level[1]		2.56	2.60	2.85	2.91
Receive subsidy		32%	34%	23%	33%
Hardship during school suspension		18%	19%	19%	33%

1.

1 Junior secondary or below	2 Senior secondary or Yijin diploma	3 Associate degree or higher diploma	4 Bachelor degree	5 Master's degree or above

2. For education level, there is no statistically significant difference among the four profiles.

3. For receiving government subsidies, profile 3 has a significantly lower proportion than the other three profiles.

4. For experiencing financial hardship during school suspension, profile 4 has a significantly higher proportion than the other three profiles.

Table 3. Home resources and family investment indicators across the four secondary parenting practices profiles

Student survey	Profiles of parenting practices			
	Profile 1 Very Low Engagement Parents Mean (SD)	Profile 2 Child-focused Communication Parents Mean (SD)	Profile 3 Child-centered Support Parents Mean (SD)	Profile 4 Comprehensive Support Parents Mean (SD)
Home resources	0.00 (0.70)	0.10 (0.65)	0.19 (0.57)	0.11 (0.69)
Family investment	0.06 (0.69)	0.10 (0.65)	0.29 (0.61)	0.16 (0.65)

1. 0 indicates mean score of the surveyed secondary students, not the mean score of the matched secondary sample. For details, please refer to the previous section entitled "Are there differences in family SES between students with matched parent survey responses and those without?".

2. For home resources, Profile 3 has significantly higher levels than Profile 1 (p <.05).

3. For family investment, Profile 3 has a significantly higher level than Profile 1 (p <.05).

Parenting practices profile of primary parents and their SES ⓟ

For primary parents, *High Child-Centered Support Parents'* (profile 3's) education level is significantly higher than that of *Low Engagement Parents* (profile 1). There is no significant difference in the percentage of parents who received subsidies among the four profiles, but *Comprehensive Support Parents* (profile 4) were more likely to have experienced financial hardship during the pandemic. Given that profile 4 parents have higher levels of involvement in parent-school interactions among the four profiles, these results suggest that parents with less financial resources are more likely to engage with schools and teachers to support their children's learning, a finding which is consistent with that for secondary parents.

For primary parents, we also examine cross-profile differences in levels of 🏠 *home resources* and 👪 *family investment* using data reported by the students (as reported in Table 5 on next page). No statistically significant differences in home resources or family investment were found in the student-parent response matched group (N=186) for primary school samples. This lack of statistical difference in these two indicators across the four profiles may be due to the small sample size of students with matched parent survey data.

Table 4. Socioeconomic indicators of the four primary parenting practices profiles

Parent survey	Profiles of parenting practices	Profile 1 Low Engagement Parents	Profile 2 Moderate Child Support Parents	Profile 3 High Child-Centered Support Parents	Profile 4 Comprehensive Support Parents
Education level[1]		2.14	2.38	2.53	2.23
Receive subsidy		45%	42%	40%	52%
Hardship during school suspension		34%	33%	31%	48%

1.

1 Junior secondary or below	2 Senior secondary or Yijin diploma	3 Associate degree or higher diploma	4 Bachelor degree	5 Master's degree or above

2. For education level, profile 3 is significantly higher than profile 1.

3. For subsidies received, there is no statistical significant difference across the four profiles.

4. For hardship experienced during school suspension, profile 4 has significantly higher level than the other three profiles.

Table 5. Home resources and family investment indicators across the four primary parenting practices profiles

Student survey	Profiles of parenting practices			
	Profile 1 Low Engagement Parents Mean (SD)	Profile 2 Moderate Child Support Parents Mean (SD)	Profile 3 High Child-Centered Support Parents Mean (SD)	Profile 4 Comprehensive Support Parents Mean (SD)
Home resources	-0.21 (0.86)	-0.03 (0.63)	0.09 (0.55)	0.01 (0.64)
Family investment	-0.02 (0.52)	0.13 (0.59)	0.09 (0.54)	0.12 (0.56)

1. 0 indicates the sample mean score of the surveyed primary students, not the mean score of the matched primary sample. For details, please refer to the previous section entitled "Are there differences in family SES between students with matched parent survey responses and those without?".

2. For both home resources and family investment, there is no statistically significant difference among the four profiles.

Parenting practices and parental well-being during school suspension

The parental survey collected data on parents' socioemotional wellbeing (with light blue brim) during school suspension. There are two parental well-being indicators, one associated with parenting during the pandemic and the other not specifically associated with parenting at all:

- 🚸 *Parental worries about school resumption* measures the extent to which parents were worried about issues their children might face upon school resumption, such as not being able to catch up with learning, difficulties in transitioning from online learning to face-to-face lessons, and the potential spread of COVID-19 in school;
- 🧍 *Parental stress* measures the general level of parents' stress, not specifically related to parenting or the pandemic.

Secondary parents' stress and worries

[Figure 5](#) presents the mean levels of worries and stress reported by parents belonging to each parenting profile. Overall, the level of worries about school resumption and general stress reported by parents were not high. However, there were differences in the levels of stress and worries across the different profiles. For stress, the least engaged parents (profile 1) have significantly lower stress levels than parents belonging to the other three profiles. For worries, the most engaged parents (profile 4) have significantly higher levels of worries than parents with profiles 1 and 3.

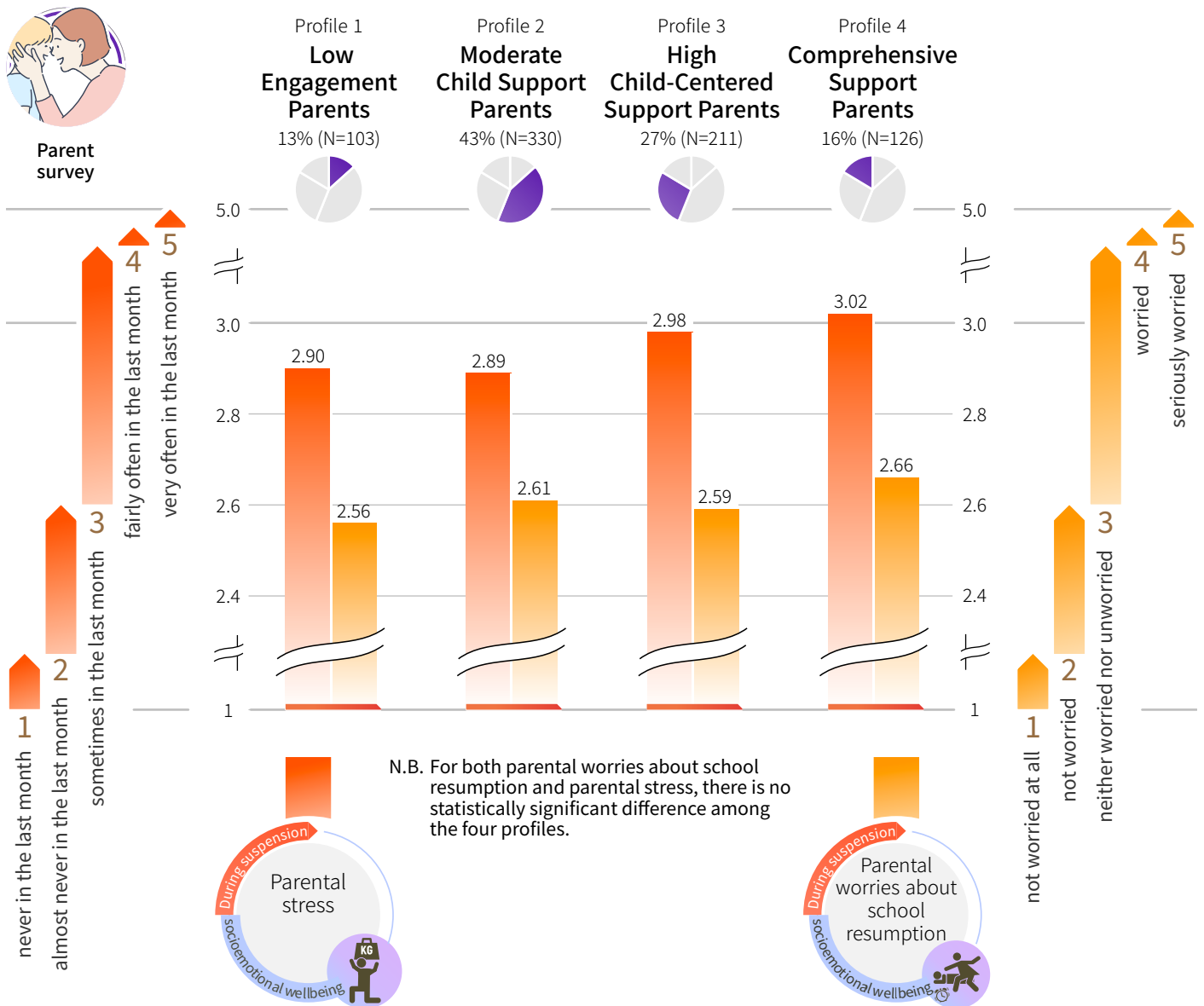Figure 5. Stress and worry levels of the four secondary parenting practices profiles

N.B. 1. Profile 1 has significantly lower stress levels than other profiles (p < .05).

2. Profile 4 has significantly higher levels of worries than Profile 1 and Profile 3 (p <.05).
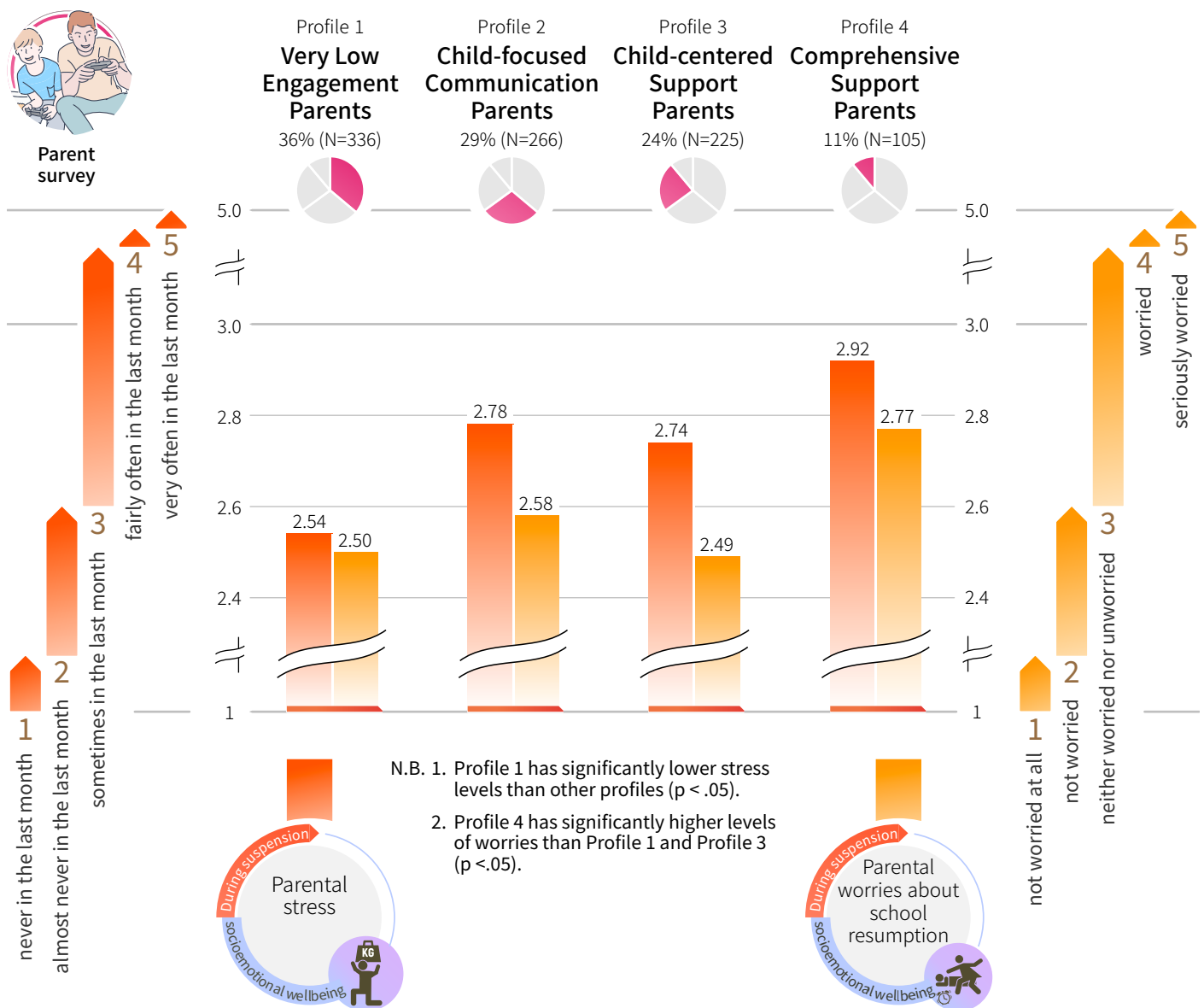
Primary parents' stress and worries

For the primary parents, similar to the secondary parents, the general level of stress across all four profiles are low. Regarding the general level of worries about school resumption, primary parents were significantly higher than secondary parents. For both stress and worries, there is no statistical difference among parents belonging to the four profiles.

Figure 6. Levels of stress and worry across the four primary parent profiles

Parent survey

Profile 1	Profile 2	Profile 3	Profile 4
Low Engagement Parents	Moderate Child Support Parents	High Child-Centered Support Parents	Comprehensive Support Parents
13% (N=103)	43% (N=330)	27% (N=211)	16% (N=126)

N.B. For both parental worries about school resumption and parental stress, there is no statistically significant difference among the four profiles.

During suspension

Parental stress

socioemotional wellbeing

During suspension

Parental worries about school resumption

socioemotional wellbeing

Protective and risk factors for students' wellbeing during school suspension and parenting practices

To understand whether and how parenting practices influence students' wellbeing, we need to have a more comprehensive understanding of different aspects of students' well-being before and during school suspension, as well as how students' experiences and perceptions during school suspension mediates their well-being before and during school suspension. Figure 7 shows the full set of 14 related indicators from the student survey.

Figure 7. 14 student survey indicators measuring students' well-being before school suspension as well as their intermediate and final outcomes during school suspension
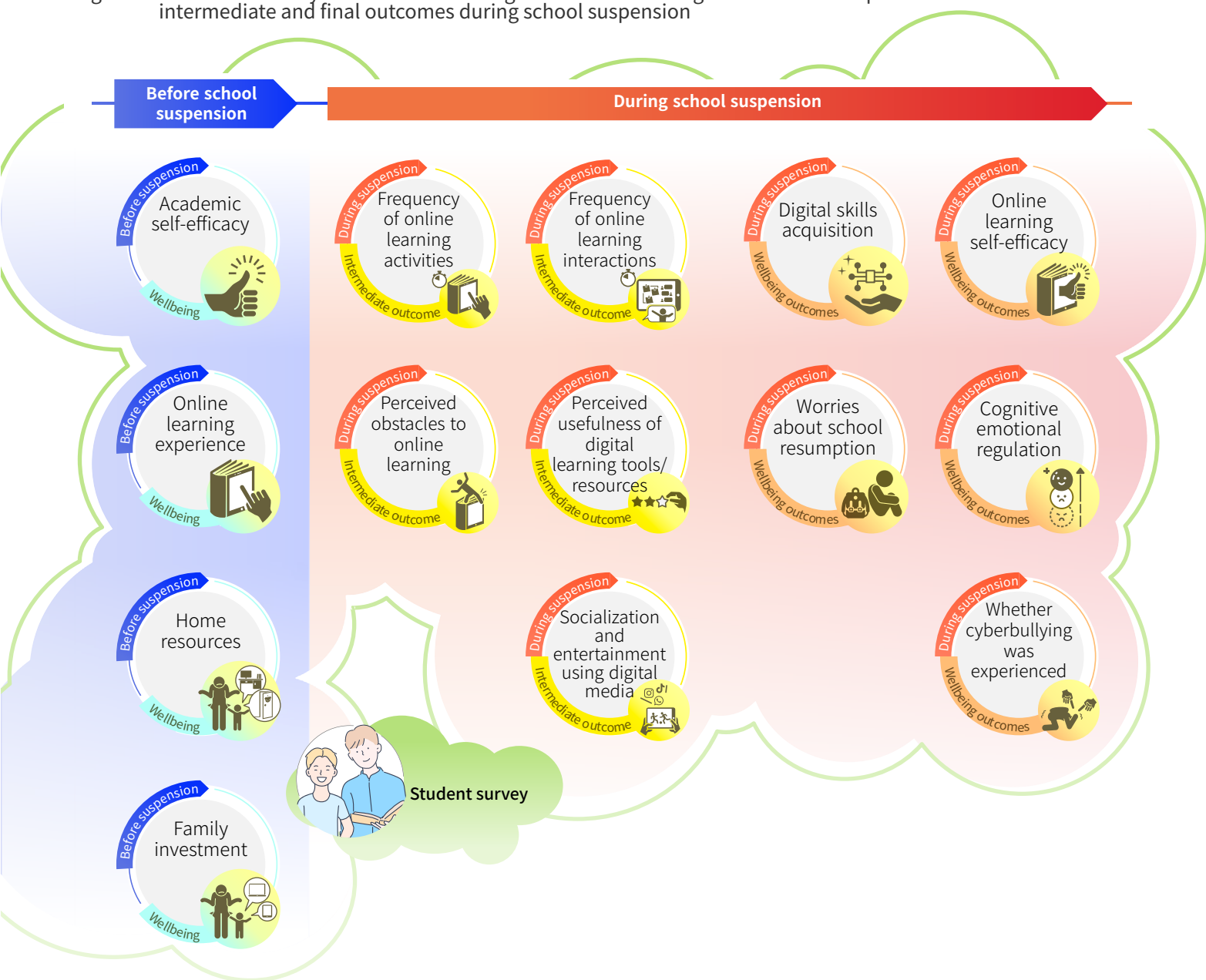
- There are four student well-being indicators (cyan brim) *before school suspension* (on blue background):
  - *Academic self-efficacy* measures the extent to which a student believes in his/her own abilities to complete academic tasks and successfully master learning materials.
  - *Online learning experience* measures the level of experience a student had in some common forms of online learning *before school suspension.*
  - *Home resources* measures the availability of physical resources in a student's home that facilitate learning (e.g., whether the student has his/her own room, a study desk, a quiet place to study)
  - *Family investment* refers to the availability of resources that contribute directly to students' learning (e.g., having access to a desktop/laptop/tablet/smartphone at home, the number of books at home), which can be more easily changed through priorities in family spending.

The student survey also collected data about students' wellbeing *during school suspension,* which comprises 10 indicators (those on orange background), five pertaining to **intermediate outcomes** (those with yellow brims) and five **final outcomes** (those with beige brims).

- Intermediate outcomes refer to students' participation in various digital activities and their perception of those experiences, which are:
  - *Frequency of online learning activities* measures the extent to which a student participates in different online learning activities, such as participating in real-time lessons, watching teachers' pre-recorded video lessons, reading digital materials, etc.
  - *Frequency of online learning interactions* measures the extent to which a student interacts with teachers and peers *during school suspension,* including collaborating with classmates to complete group assignments, having a discussion with teachers and peers during class time, etc.
  - *Perceived obstacles to online learning* measures the extent to which a student encounters obstacles when he or she is learning online at home, such as noisy learning environments and inadequate internet connectivity for online classes.
  - *Perceived usefulness of digital learning tools/resources* measures a student's perceived usefulness of some commonly used online learning technology, such as Google Classroom, pre-recorded videos of lessons, real-time video lessons.
  - *Socialization and entertainment using digital media* measures the extent to which a student uses digital devices for socialization and entertainment purposes on a regular day during the school suspension period, including chatting with friends via Snapchat/WhatsApp, posting or browsing on social media, and playing online games.
- The five final wellbeing outcome indicators measure students' learning outcomes and socioemotional well-being resulting from their experiences *during school suspension* (those also on orange background and with beige brims). These are:
  - *Digital skills acquisition* measures the extent to which new digital skills have been acquired *during school suspension,* such as learning new coding skills.
  - *Online learning self-efficacy* measures students' perceptions of their own capabilities to successfully participate in online courses and complete learning tasks when studying online, including mastery of online materials and paying attention during online classes.
  - *Worries about school resumption* indicates the extent to which a student worries about what may happen after school resumption, such as adapting to the daily school routine, and preparing for upcoming exams.
  - *Cognitive emotional regulation* measures the extent to which students are able to use cognitive strategies to cope with unpleasant events *during school suspension.*
  - *Students' cyberbullying experiences* *during school suspension* indicates the extent to which students encounter different cyberbullying experiences, whether as a bully, a victim, or a bystander.

Before we report on how parenting practices affect children's well-being, we first report on our analysis of which the before suspension well-being and intermediate outcomes contribute positively to students' well-being (serving as protective factors), and which are negative contributors (serving as risk factors). It has to be noted that for analysing the relationship between parenting practices and students' well-being, we need to use matched student and parent survey data. As there is a relatively large sample of matched secondary data, we used only the matched secondary student data for the analysis of protective and risk factors (N=932). However, due to the small sample size of matched primary data (N=186), the analysis of primary students' protective and risk factors were conducted using the entire set of primary student survey data (N=1292), even though the relationship between parenting practices and student well-being for primary students was conducted with the matched sample only.

Protective and risk factors for students' wellbeing during school suspension

Students' well-being is not only influenced by parents, but also by other factors. In particular, students' learning and well-being outcomes (final outcomes) are influenced by their well-being before school suspension, and their online engagement and perceptions during school suspension (intermediate outcomes). Students' intermediate outcomes also influence their final outcomes. In this section, we provide an in-depth analysis on which student survey indicators played key protective or risk factor roles in influencing students' final outcomes during school suspension (see Figure 7 for the list of 14 student survey indicators). This is achieved through SEM to explore (1) how students' well-being before school suspension predicted their intermediate and final outcomes, and (2) how students' intermediate outcomes predicted their final outcomes. To conduct the SEM for this section of the analysis, we only need data from the student survey.

Secondary students' protective and risk factors

For the analysis related to secondary students, we have used the dataset that has matched parent survey data (N=932) for easy comparability with the results regarding parenting practices and student well-being.

The partial SEM results connecting the pre-suspension student background indicators with the intermediate and final student outcomes shown in Figure 8 on next page show that:

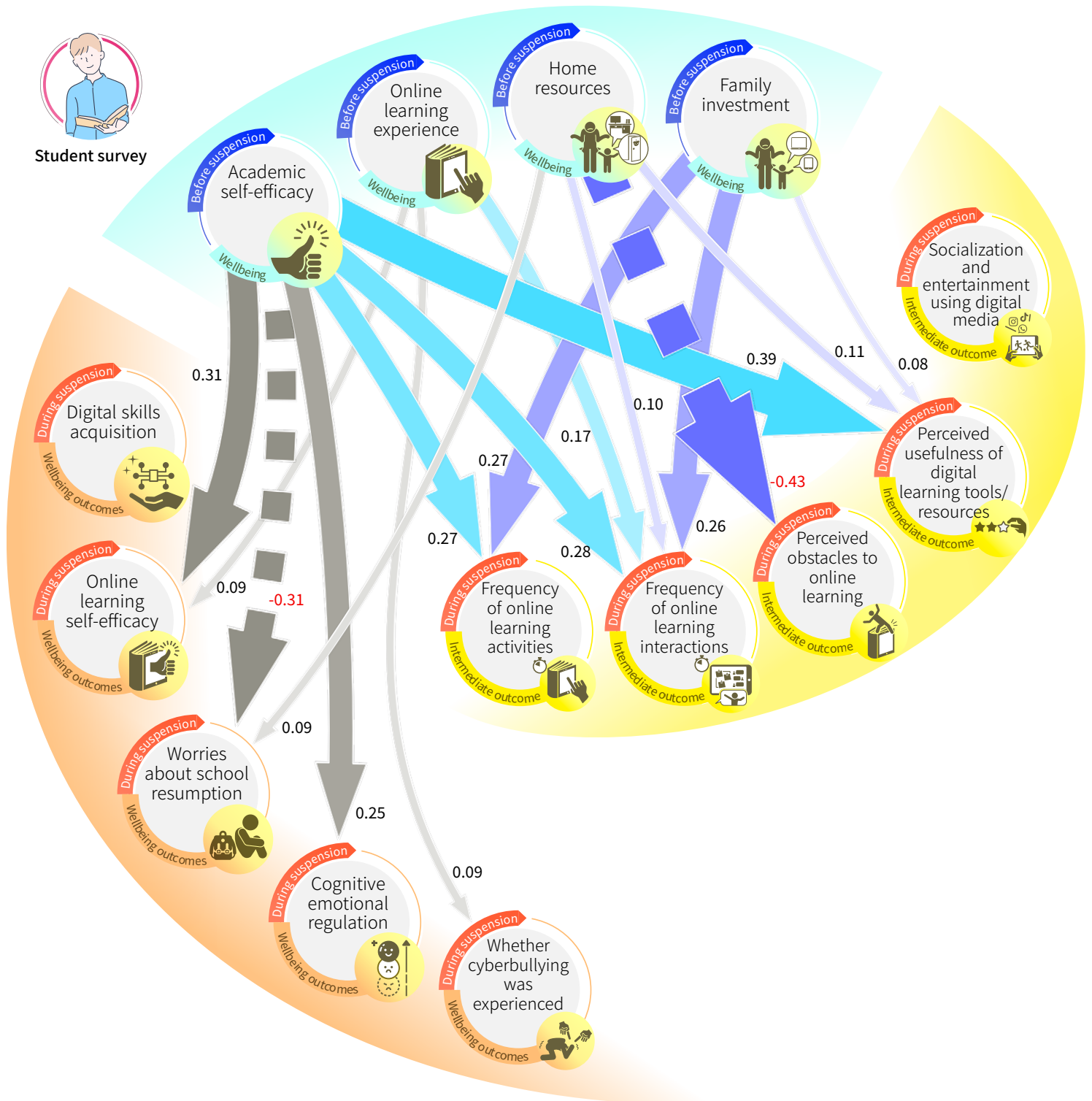1. Students' **academic self-efficacy** is the strongest predictor for three intermediate and three final outcome indicators. It predicts greater *participation in online learning activities* and *in online interactive activities*, positive *perceptions of the usefulness of online learning tools,* higher levels of *emotional regulation,* higher levels of *online learning self-efficacy,* and less *worries about school resumption.* Hence students' academic self-efficacy is the most important before school suspension supportive and protective factor for students' well-being during school suspension.

2. The students' SES only have minimal direct relationship with students' final outcomes during school suspension, but significantly influences students' participation and perception of online learning (the intermediate outcomes). A student's reported **home resources** significantly negatively predicts a high level of *perceived obstacles to online learning.* On the other hand, the actual frequencies of *participation in online learning activities* and *interactions* are strongly predicted by **family investment**. This implies that even though low SES creates extra hurdles for students, they could still participate in online learning if the family prioritizes its investment or find ways to provide the devices and internet access needed.

3. Overall, the level of **online learning experience** students had before school suspension was low. Those who had more experience before school suspension were more likely to take part in more *interactive online learning* and to have higher levels of *online learning self-efficacy* during school suspension. However, they are also more likely to have *experienced cyberbullying,* possibly because of their greater exposure to online activities.

Figure 8. Partial SEM results of pre-suspension indicators (cyan background) predicting intermediate student outcomes (yellow background) and final student outcomes (orange background) based on secondary students' response (matched sample N=932)

Student survey

Before suspension
Academic self-efficacy
Wellbeing

Before suspension
Online learning experience
Wellbeing

Before suspension
Home resources
Wellbeing

Before suspension
Family investment
Wellbeing

During suspension
Socialization and entertainment using digital media
Intermediate outcome

During suspension
Perceived usefulness of digital learning tools/ resources
Intermediate outcome

During suspension
Digital skills acquisition
Wellbeing outcomes

During suspension
Online learning self-efficacy
Wellbeing outcomes

During suspension
Worries about school resumption
Wellbeing outcomes

During suspension
Cognitive emotional regulation
Wellbeing outcomes

During suspension
Whether cyberbullying was experienced
Wellbeing outcomes

During suspension
Frequency of online learning activities
Intermediate outcome

During suspension
Frequency of online learning interactions
Intermediate outcome

During suspension
Perceived obstacles to online learning
Intermediate outcome

0.31
0.09
-0.31
0.09
0.25
0.09
0.27
0.27
0.17
0.28
0.10
0.26
0.39
0.11
0.08
-0.43

The remaining part of the partial SEM results presented in Figure 9 shows how students' intermediate outcomes predict their final outcomes during school suspension. The results show that all of the intermediate outcomes have multiple significant influences on students' final outcomes. In terms of academic outcomes, the most important final outcomes are *digital skills acquisition* and *online learning self-efficacy*. Students' *worries about school resumption* and whether *cyberbullying was experienced* were important psychosocial well-being indicators. A student's *cognitive emotional regulation* contributes importantly to both academic and psychosocial well-being of the student. The following are prominent observations from the SEM results.

Figure 9. Partial SEM results of intermediate outcomes (yellow background) predicting final student outcomes (orange background) based on secondary students' response (matched sample N=932)
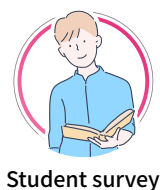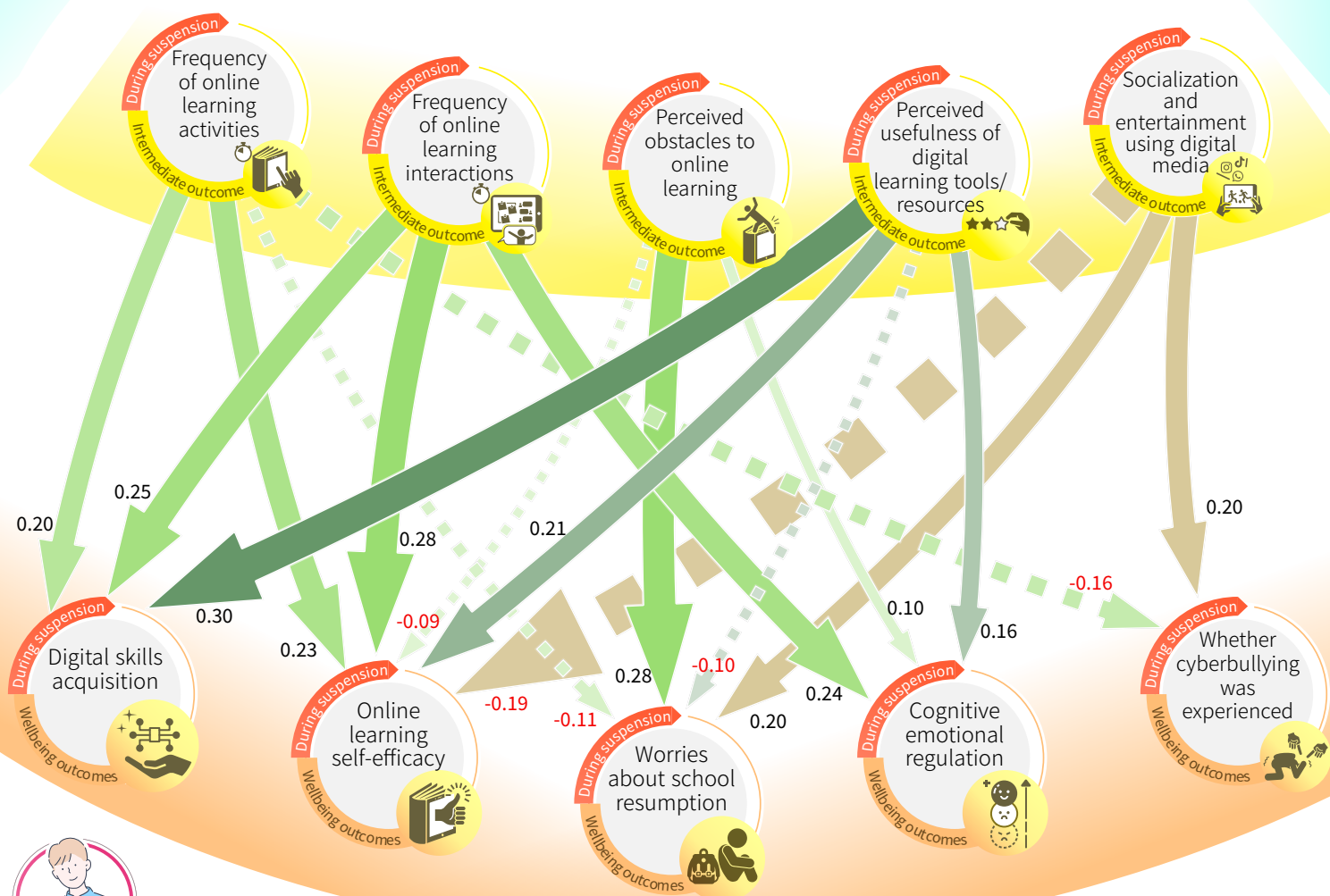
1. Students' **digital skills acquisition** during school suspension is only predicted by three intermediate indicators: *frequency of participating in online learning activities* and *in online learning interactions*, as well as students' *perceived usefulness of digital learning tools/ resources*. Thus opportunities to engage in productive online learning interactions is crucial for students to acquire new digital skills.

2. Students' **online learning self-efficacy** is strongly predicted by their *pre-suspension academic self-efficacy*, as discussed above. However, *online learning self-efficacy* is also strongly predicted by the same three intermediate outcomes as for *digital skills acquisition*. This is reasonable as it implies that *online learning self-efficacy* can be enhanced through more positive experiences with online learning engagement. It is noteworthy that *online learning self-efficacy* is negatively predicted by students' *use of digital media for socialization and entertainment*. This is probably an indication that students who engaged more in digital socialization and entertainment participated less in online learning.

3. Students' **cognitive emotional regulation** is predicted by their *frequency of online learning interactions* and their *perceived usefulness of digital learning tools/ resources,* in addition to being strongly predicted by their academic self-efficacy. This indicates that cognitive emotional regulation is closely related to students' academic engagement and well-being.

4. In terms of psychosocial well-being outcomes, if students *perceived* higher levels of *obstacles to online learning,* they also reported higher levels of **worries about school resumption**. On the other hand, higher levels of *digital socialization and digital entertainment* predicts higher probability of having **encountered cyberbullying** during the school suspension period.

Synthesizing both sets of SEM results, *perceived obstacles to online learning* and high levels of *digital socialization and entertainment involvement* are risk factors that may jeopardize a student's psychosocial well-being. Students with lower *home resources* are at greater psychosocial risk as it is a negative predictor of *perceived obstacles to online learning*. In terms of academic well-being, the role of *academic self-efficacy* as a key pre-suspension protective factor is even more prominent as it also contributes indirectly to students' academic well-being through its significant contribution to all the intermediate outcomes that are key predictors of students' academic well-being indicators: *digital skills acquisition, online learning self-efficacy,* and *cognitive emotional regulation* during school suspension. Our findings also show that while students from low SES families may be at a disadvantage in terms of online learning, this can be mitigated to some extent by prioritizing higher *family investment* on the child's learning, which contributes significantly to all of the intermediate outcomes that predict higher academic well-being during school suspension.

Further synthesizing the findings from this set of student survey SEM with the findings regarding parenting behaviour indicators and students' well-being (see Figure 10 on next page), the importance of parent-child relationship during school suspension as both a supportive factor for academic well-being and protective factor for psychosocial well-being is further expanded through its direct and indirect contributions to the child's associated intermediate and final outcomes.

Parenting practices and secondary students' well-being

We conduct SEM on the entire set of matched student and parent survey data (N=932) to investigate the relationship between parenting practices and student well-being. The results are presented in Figure 10. There are several important findings based on the significant connections between parenting practices and student well-being indicators.

The following are key insights from the SEM modelling results presented in Figure 10:

1. A parent's perceived **improvement in parent-child relationship** during school suspension is the single most important protective and supportive factor for the well-being of his/her child. It is associated with the child having greater *digital skills acquisition,* a higher level of *online learning self-efficacy,* more frequent *participation in online learning activities,* a higher level of *perceived usefulness of online learning tools,* fewer *obstacles to online learning,* a lower level of *socialization and entertainment using digital tools* and fewer *worries about school resumption*. Since students with more *digital socialization and entertainment* are more likely to *experience cyberbullying,* a good *parent-child relationship* protects students from cyberbullying.

2. We found that **parental help at home** is positively associated with frequent *participation in online learning activities* and *interactions*. However, results show that more *parental help* provided for online learning *at home* is associated with lower levels of students' *perceived usefulness of online learning tools, emotional self-regulation,* and *online learning self-efficacy*. It could be the case that parents are more likely to provide support when they perceive that their children are having difficulties in coping with online learning. However, it also indicates that direct help by parents on schoolwork may not bring positive results on students' learning (for secondary students). Another noteworthy finding is that *parental help* is positively related to students' engagement in *digital socialization*.

3. In terms of parents' school involvement, a higher level of **parents' participation in school events** was related to a higher level of *students' online learning participation* and *interaction* as well as the *perceived usefulness of online learning tools*. In addition, it was negatively related to students' *perceived obstacles*.

Figure 10. Results of the SEM modelling showing the predictive relationship between parenting behaviour and students' well-being outcomes for secondary students during school suspension

On the other hand, it was negatively associated with students' *acquisition of digital skills*. In addition, results show that **parents** who **interacted** more **with teachers** had a higher level of students' *worries about school resumption*, more *obstacles*, and more chance of *encountering cyberbullying*. Correlation does not imply causation. It could be the case that parent-teacher interactions were more likely to be initiated when the student, the parent and/or the teacher noticed problems encountered by the student.

4. Regarding relationships between parenting behaviour before and during school suspension, parents who had higher levels of **monitoring** before school suspension continued to do so during school suspension.

Primary students' protective and risk factors

A similar SEM analysis with primary students' survey responses were also conducted. However, due to the limited size of the matched sample, all valid primary students' responses were included in the analysis (N=1292) in order to achieve a more informative model. This also means that we cannot synthesize the primary student survey SEM findings with the parenting behaviour SEM results, in the way that we are able to do with the secondary data.

Similar to our presentation of the SEM results for secondary students, results are presented in two figures for the two partial SEM results. Figure 11 on next page shows the association between pre-suspension student well-being indicators (cyan background) with the intermediate indicators (yellow background) and final student outcomes (orange background) respectively. The relationships between intermediate indicators (yellow background) and final student outcomes (orange background) are further summarised in Figure 12 on page 23.

There are strong similarities between the SEM results across the primary and secondary student cohorts, but there are also differences. In terms of the pre-suspension indicators, **academic self-efficacy** is still the most important supportive and protective factor, but with some fine grain differences. Pre-suspension *academic self-efficacy* predicts even more strongly *online learning self-efficacy, frequency of participation in online learning activities*, and *perceived usefulness of digital learning tools and resources*. In addition, academic self-efficacy positively predicts primary students' *digital skills acquisition* (this relationship was not found in the secondary students' data), and negatively predicts students' *worries about school resumption*.

In terms of how intermediate outcomes relate to final outcomes, the results are similar to those reported for secondary students for the *frequency of participation in online learning activities* and the *perceived usefulness of digital learning tools/resources*. Both indicators contribute positively to the academic well-being outcomes. However, the influence of the other two intermediate, potential risk factors are different and stronger than those reported for the secondary students. Unlike the case with secondary students, where *perceived obstacles to online learning* was primarily a risk factor predicting higher levels of *worries about school resumption*, this indicator also predicted positive outcomes besides worries during school suspension. Primary students' *perceived obstacles* was a much stronger predictor of *cognitive emotional regulation* than for secondary students (coef. = 0.51 compared to 0.10). It also significantly predicted *digital skills acquisition*, whereas this relationship did not exist in the secondary student data. It is not clear what might have brought these positive benefits from students' perceived obstacles to online learning. One possibility could be that the younger students' awareness of the obstacles could be associated with greater parental support. On the other hand, *perception of obstacles* also predicted higher probability of the student *experiencing cyberbullying*, which was not observed in secondary students.

The other intermediate outcome that is a potential risk factor is students' engagement in **socialization and entertainment using digital media**. Similar to the *perception* of obstacles to online learning indicator, which only predicted negative outcomes for secondary students (higher probability of *encountering cyberbullying*, more *worries about school resumption* and lower *online learning self-efficacy*), this indicator also predicted positive outcomes for primary students: greater *cognitive emotional regulation* and higher *digital skills acquisition*. More research is needed to further explore these differences across primary and secondary students.
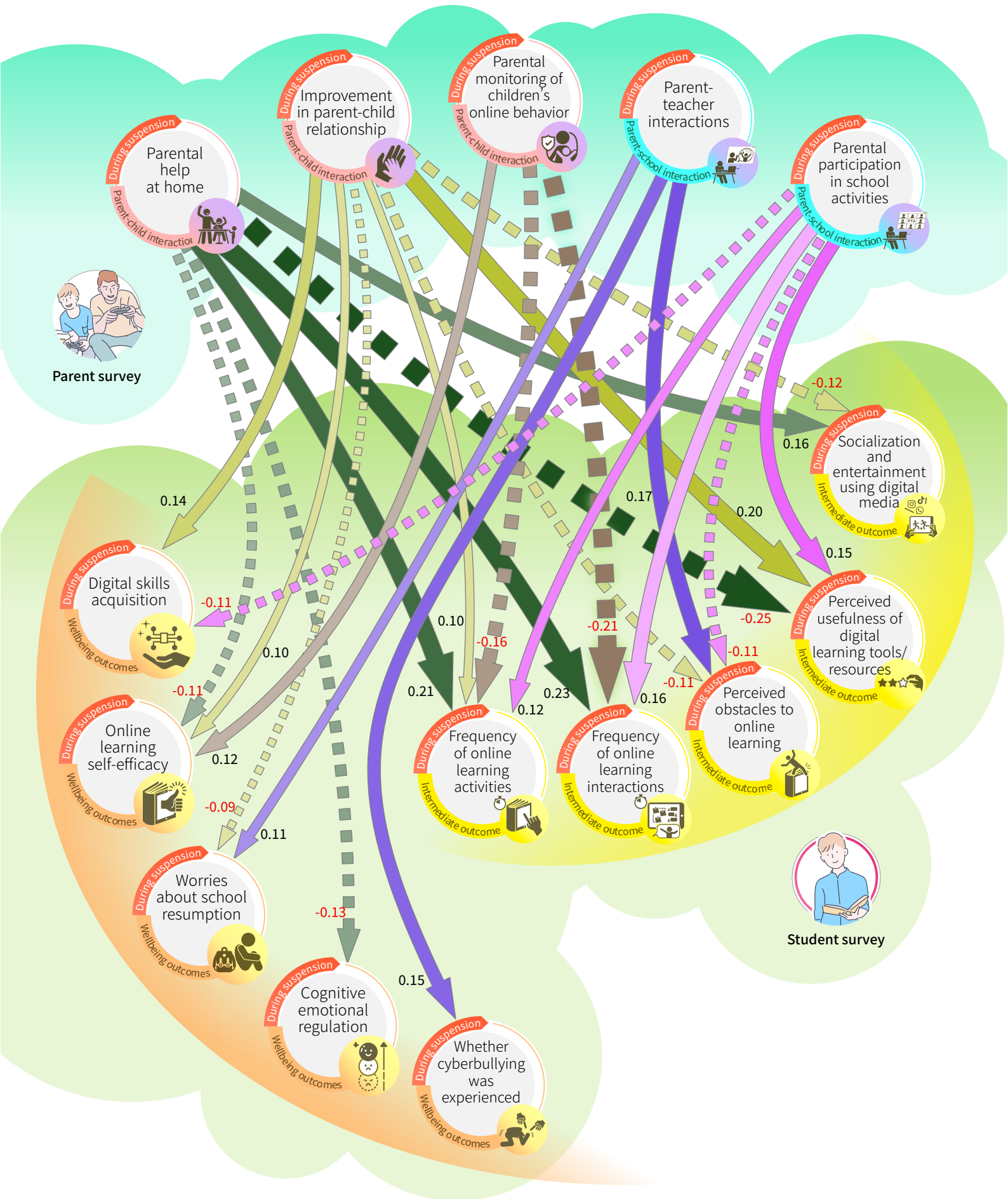
Figure 11. Partial SEM results of pre-suspension indicators (cyan background) predicting intermediate student outcomes (yellow background) and final student outcomes (orange background) based on primary students' response (full sample N=1292)
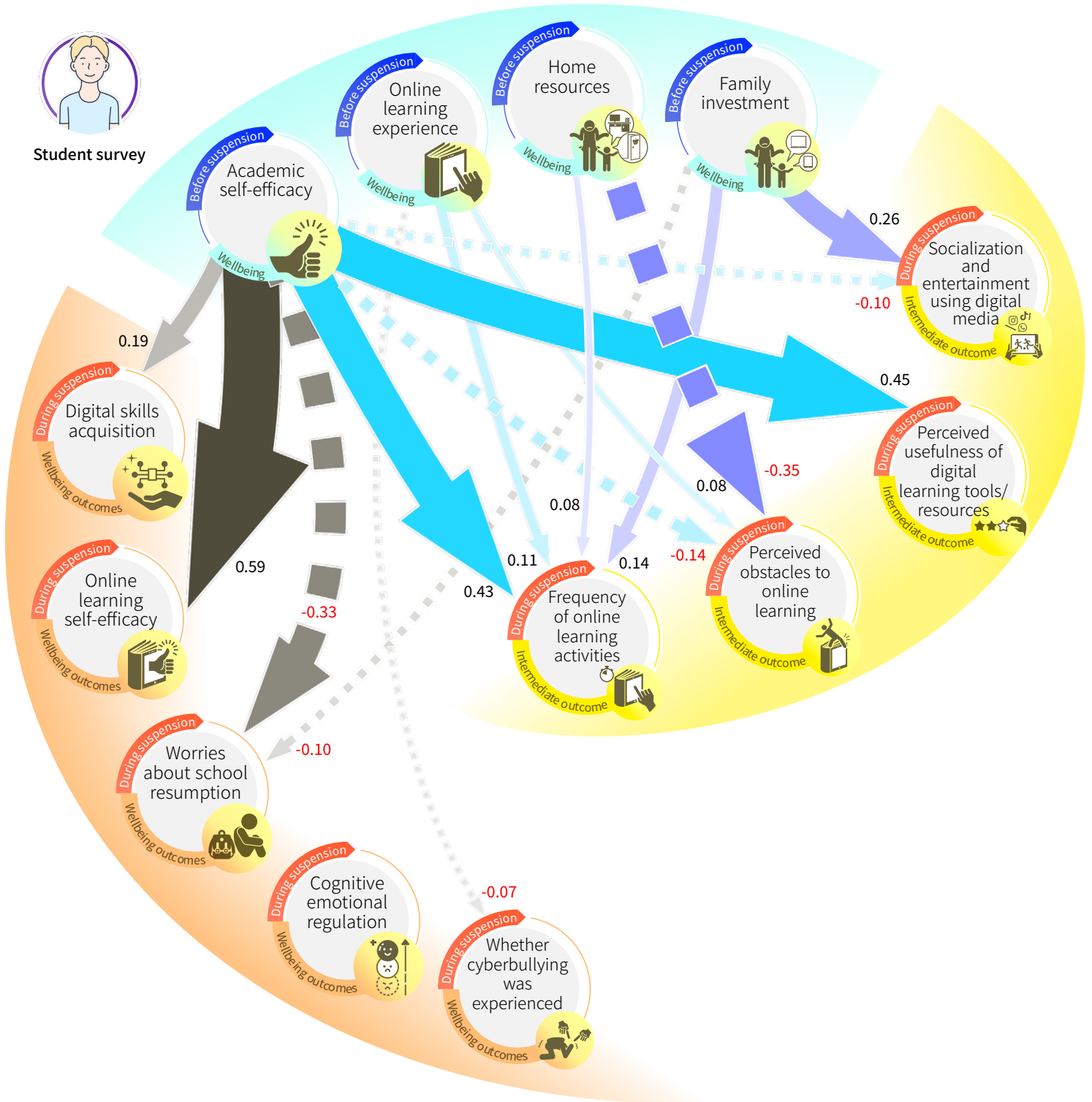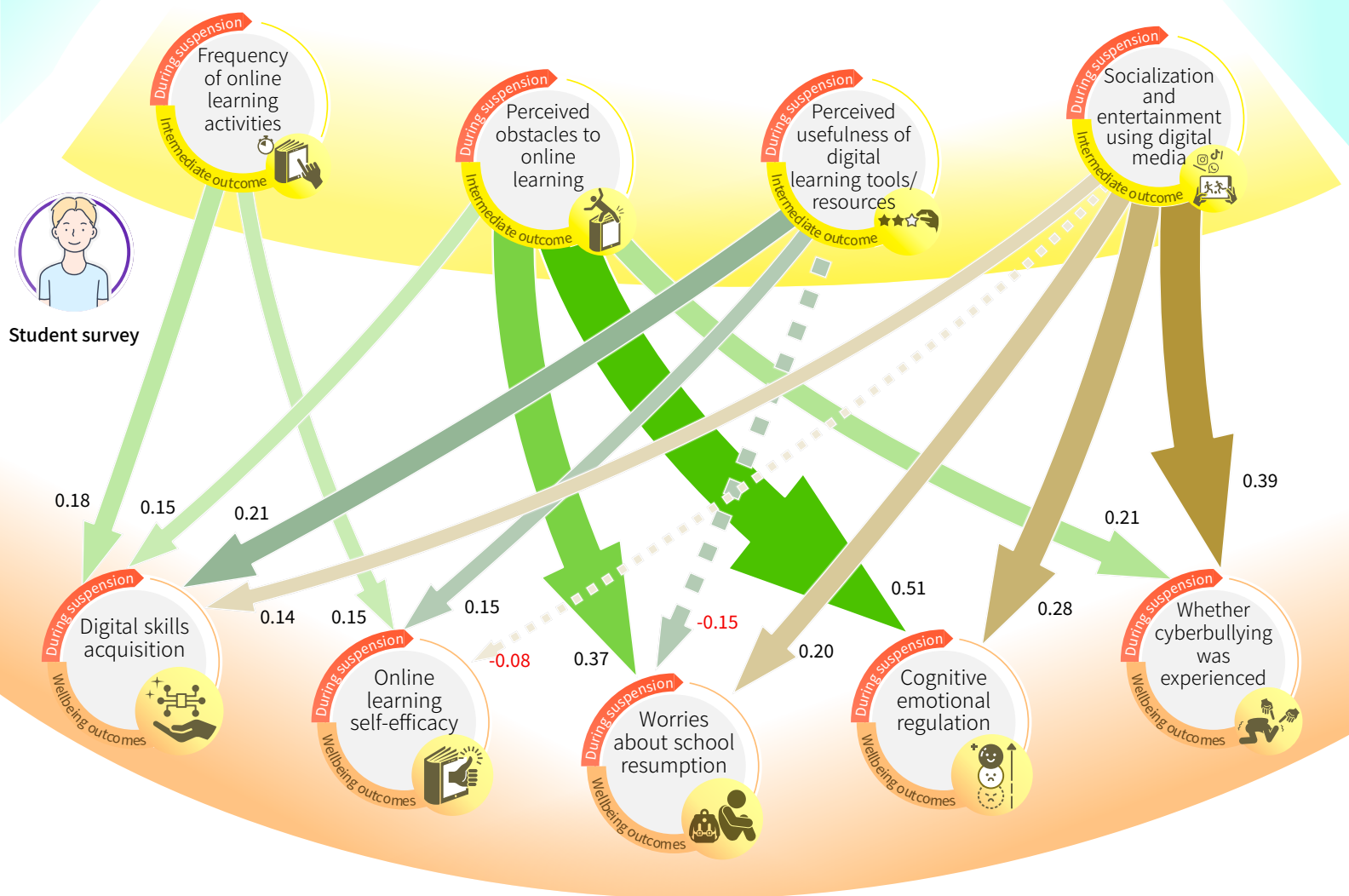
Figure 12. Partial SEM results of intermediate outcomes (yellow background) predicting final student outcomes (orange background) based on primary students' response (full sample N=1292)
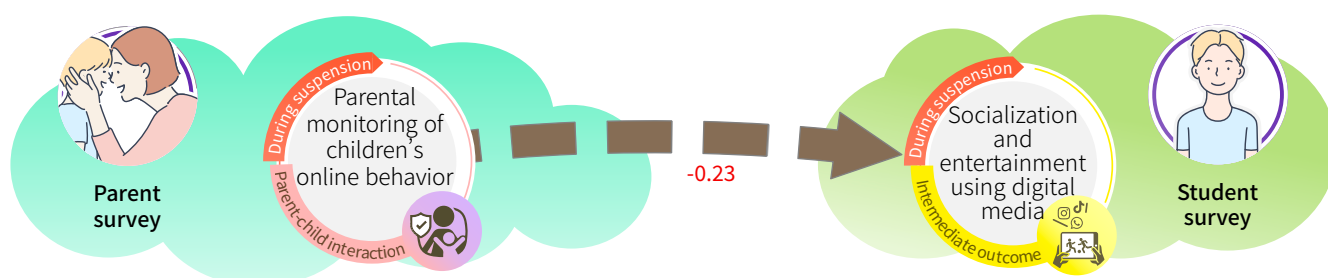
Parenting practices and primary students' well-being ⓟ

We examined the relationship between parental involvement (before and during school suspension) and students' wellbeing. Our analysis of the primary matched sample (N=186) only identified one predicted relationship (see Figure 13). Our findings show that parents who *monitor children's online behaviors prior to school suspension* are more likely to *monitor their children's online behaviors during the school suspension* period. This *m*onitoring during school suspension is negatively related to children's *socialization and entertainment using digital media*. Students with less online socialization and entertainment are less likely to encounter cyberbullying. Therefore, parents' monitoring is indirectly related to students encountering cyberbullying. It is important to note that a predicted relationship may not be a causal one. It could be the case that parents engage in more monitoring behaviors when they observe more digital socialization and entertainment engagement in their children.

Figure 13. Parental involvement indicators predicting student online learning experience using SEM on the matched primary sample (N=186)

How do **school and teacher factors** influence **parenting practices** and **students' well-being during school suspension**?

Key teacher and school leadership preparedness indicators for online teaching and learning

In bulletins 3 and 4, four teacher indicators and four school leadership indicators were identified respectively as key to online learning and teaching preparedness (see Figure 14). The four teacher preparedness indicators comprise 🔵 *teachers' priority for student-centred pedagogy before school suspension*, and three *during school suspension* indicators: 🔵 *teachers' self-efficacy on designing and implementing online teaching*, frequency of 🔵 *using online platforms and resources for interactive online learning and teaching*, and frequency of 🔵 *using instant messaging and videoconferencing software to teach and communicate*. The four key school leadership preparedness indicators are all associated with the school's contextual situation *before school suspension*: whether the school has made 🔵 *specific provisions for student-centred learning*, the extent to which the school has put 🔵 *emphasis and made provisions for teacher professional development*, the perceived 🔵 *strength of the school's e-learning plan and strategy*, and the extent to which there is a 🔵 *culture of openness to innovation and e-learning*.

Figure 14. The list of 4 teacher and 4 school leadership indicators that were identified in earlier bulletins as key for online teaching and learning preparedness
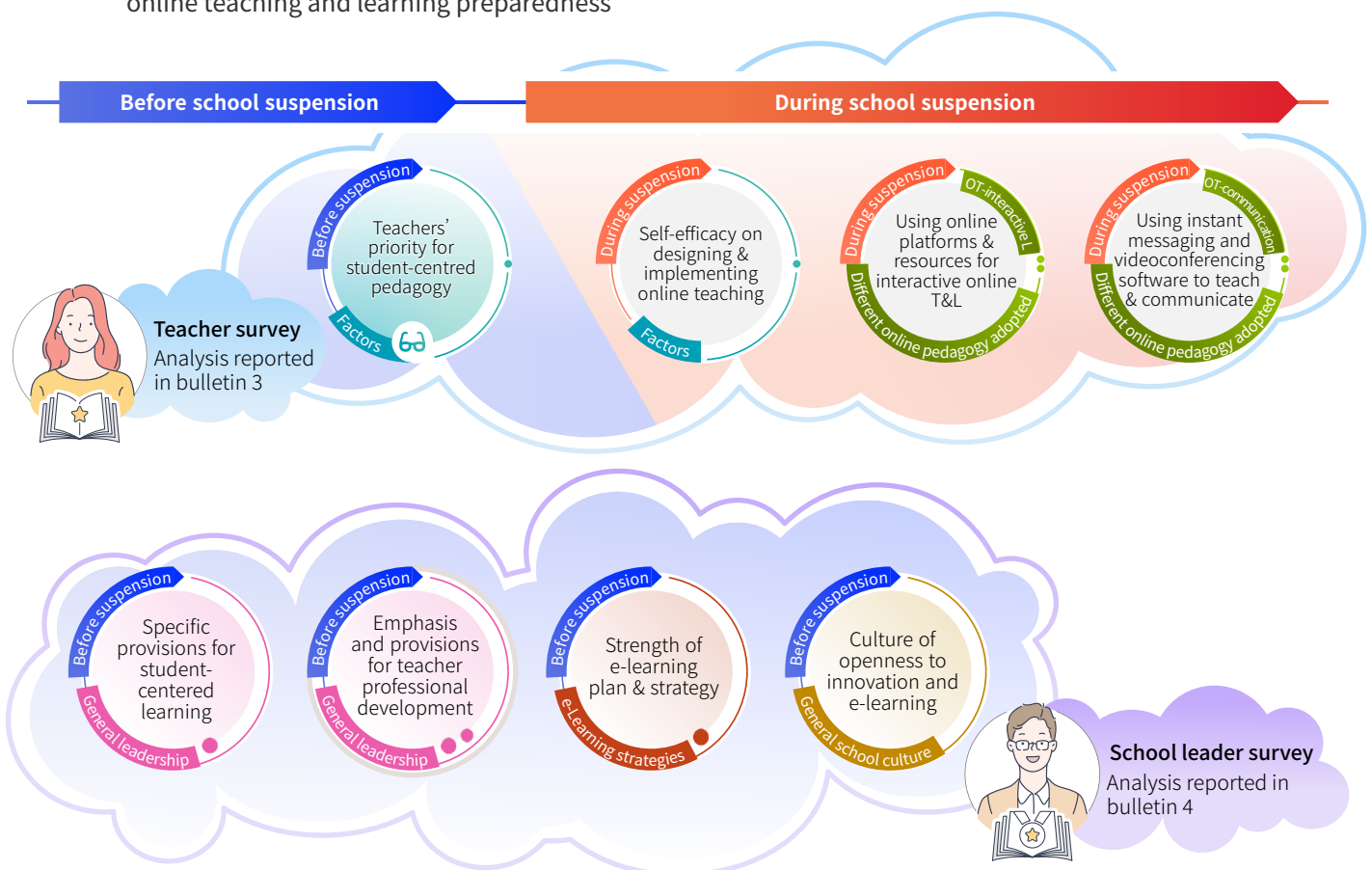
In this bulletin, we explore two research questions. First, we examine whether there are significant between-school differences in students' intermediate and final outcomes during school suspension, and in parents' parenting practices. Second, for those indicators that show significant between-school differences, whether these differences can be predicted by any of the above eight online learning and teaching preparedness indicators.

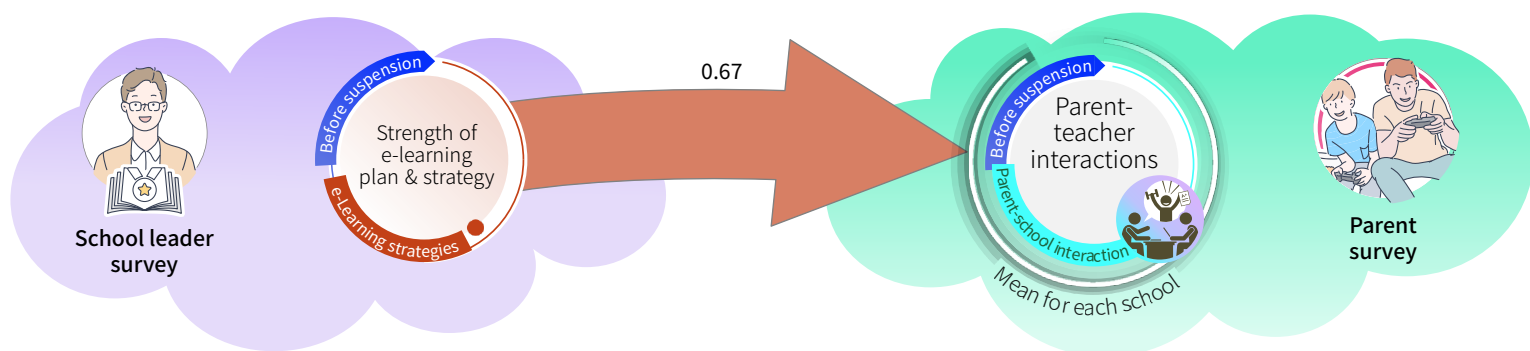## Between-school differences in student outcomes and parenting practices for secondary schools

A two-level model with no predictor at the school level was carried out with all the 10 student outcome indicators (five for intermediate and five for final outcomes) and for the parenting behaviour indicators for the full sample of respective primary and secondary data. The model results show that for secondary schools, there were three student outcome indicators that showed significant between-school differences: the *fr*equency of online learning interactions, the level of worries about school resumption, and the probability of having encountered cyberbullying during school suspension. As earlier bulletin findings show that school leadership preparedness had a strong influence on teacher preparedness, which in turn influences student outcomes, a three-level model was constructed to explore whether this model could explain the between-school differences in student outcomes. The model results show that two of the three cross-school differences in student outcomes can be predicted by differences in teacher preparedness: (1) 🕐 *teachers' self-efficacy in designing and implementing online learning* predicts students having lower 🧑‍🦯 *worry about school resumption*; and (2) 📹 teachers' frequency in the *use of instant messaging and videoconferencing to teach and communicate* predicts students' higher 🎮 *frequencies in participating in online learning interactions* (see Figure 15).

Figure 15. Teacher survey indicators predicting between school differences in student survey outcomes with the full sample of secondary data
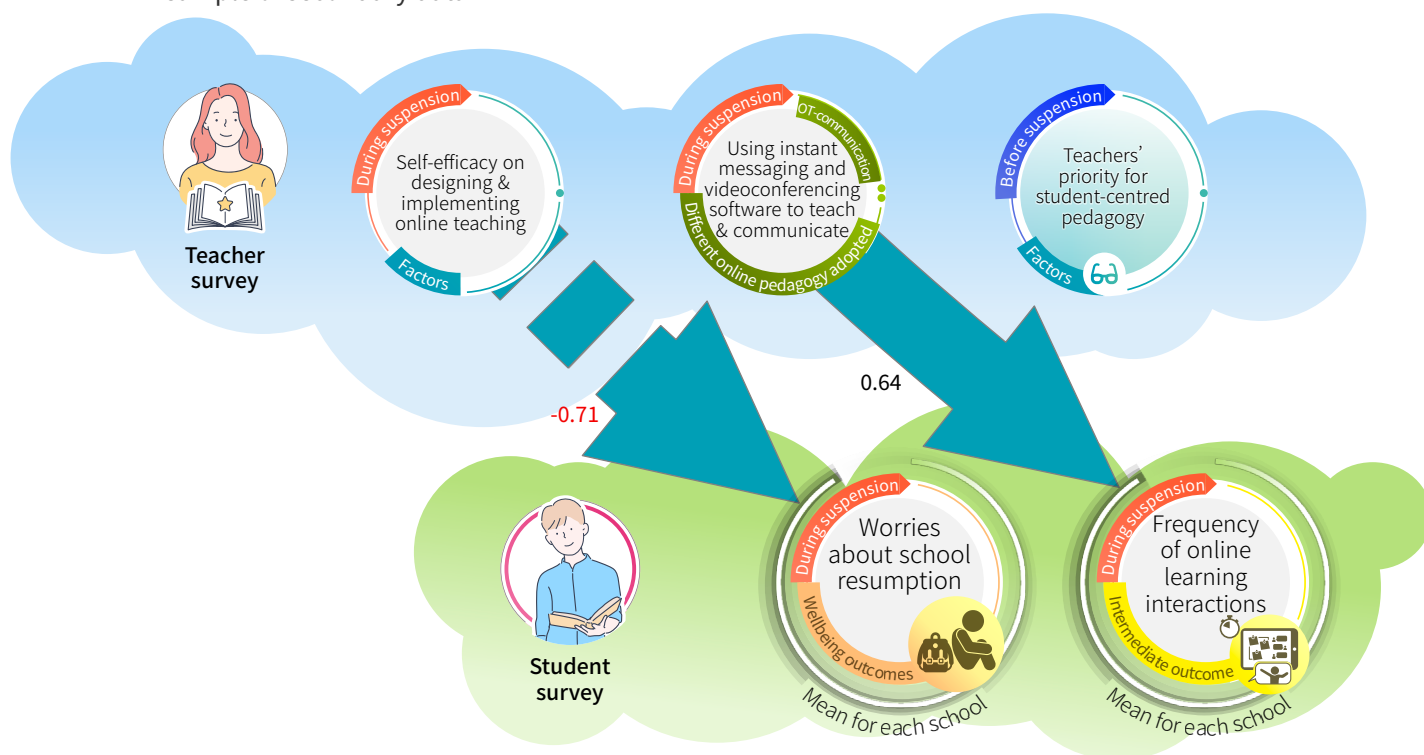
Another two-level modelling with no predictor at the school level was also conducted with the parenting behaviour indicators. The results showed that three indicators showed significant between-school differences: the frequency of parent-teacher interactions before school suspension and during school suspension, as well as the extent to which parents monitor their children's online behaviour. A two-level modelling analysis was then conducted with the four teacher indicators and four school leadership indicators shown in Figure 14 as predictors. The modelling result could only find one significant relationship (possibly because the number of schools involved were small): the 🕐 *strength of a school's e-learning strategy* predicts higher frequencies of 👨‍👩‍👧 *parent-teacher interaction* before school suspension. The results of this model is presented in Figure 16 on next page.

Figure 16. School leader survey indicators predicting between school differences in parent survey outcomes with the full sample of secondary data

Between school differences in student outcomes and parenting practices for primary schools

Two-level modelling with no predictor at the school level was carried out with all the 9 student outcome indicators for the full sample of primary student data found only one significant cross school difference, which is the students' 🌀 *digital skills acquisition* during school suspension. There is no cross school difference in any of the parenting practices indicators when a similar two-level model was carried out with the full sample of primary parent data. A two-level model was then conducted with the four teacher indicators and four school leadership indicators (shown in Figure 14) as predictor variables for this between school difference in digital skills acquisition. The results (see Figure 17) show one significant predictor: 🌀 *teachers' use of online platforms and resources for interactive online teaching and learning.*

Figure 17. Teacher survey indicators predicting between school differences in student survey outcomes with the full sample of primary data
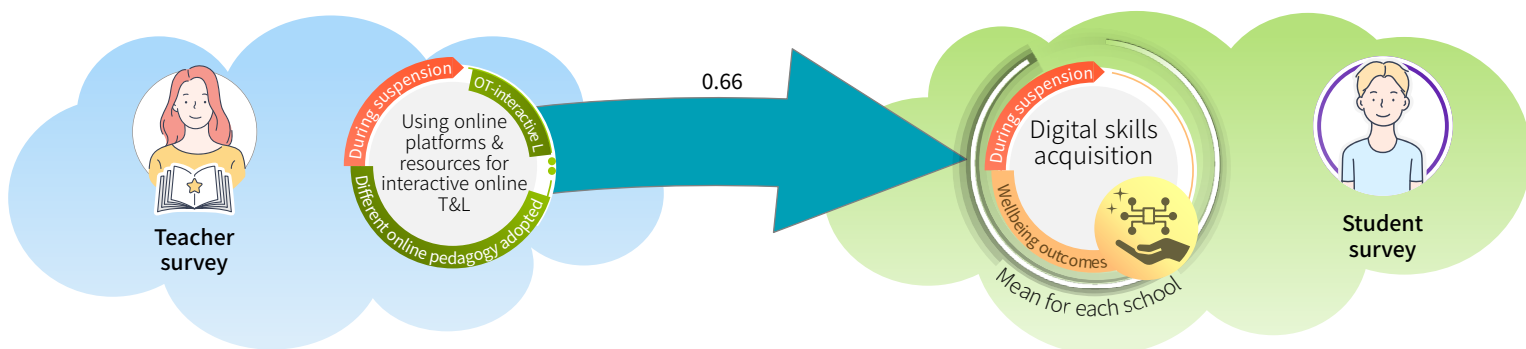
Summary of findings

1. ***Good parent-child relationship is the single most important supportive and protective factor for children's well-being.***
   We examined the relationship between parenting indicators and the well-being of the child during school suspension. Our analyses show that parents' perceived improvement in parent-child relationship during school suspension positively predicts the largest number of well-being indicators during the school suspension period: self-efficacy for online learning, increase in digital skills acquired, participation in online learning activities, and usefulness of online learning tools. The strength of parent-child relationship also predicts lower levels of child-reported use of digital media for socialization and entertainment, lower perceived obstacles to online learning, and lower probability of encountering cyberbullying. Thus, maintaining a good parent-child relationship is the single most important focus in parenting, as it is both a supportive factor for learning and a protective factor against negative outcomes during school suspension.

2. ***Parental participation in school activities predicts children's participation in online learning and perceived usefulness of online learning tools.***
   In general, the levels of parent-teacher interactions and parental participation in school activities are lower than that of parent-child interactions, both before and during the school suspension period. However, our analyses of the secondary school data shows significant benefits in parental participation in school activities. Specifically, parental participation in school activities during school suspension predicts children's participation in online learning activities and their perceptions of the usefulness of online learning tools. This finding suggests that parents who participated more in school activities have a better understanding of how to provide appropriate support for their children's learning. The analyses also show that parent-teacher interactions during school suspension were associated with higher levels of obstacles in online learning reported by the children. This finding suggests that teachers and parents are more likely to contact each other when they observe the students having difficulties in online learning.

3. ***Parents from lower SES backgrounds are more likely to engage in school activities and interact with teachers.***
   Among the four parenting patterns at both primary and secondary levels, only parents belonging to the *Comprehensive Support* group show substantial involvement with schools and teachers. This group of parents also reported a higher probability of experiencing hardship during school suspension. These findings suggest that parents from lower SES backgrounds depend more on schools for parenting support for the well-being of their children's learning.

4. ***Teachers' online teaching preparedness and their priority for student-centred pedagogy is associated with lower levels of students' worries and lower probability of encountering cyberbullying during school suspension.***
   We find significant between-school differences in three students' outcomes during school suspension for secondary students, two of which can be explained by teacher online preparedness indicators. First, teachers' self-efficacy in the design and implementation of online learning and teaching predicts lower levels of students' worries about school resumption. Second, teachers' frequencies in using instant messaging and videoconferencing software to teach and communicate predicts higher frequencies in students' reported participation in online learning interaction.

5. ***Secondary schools with more effective e-learning plans and strategies are likely to have more parent-teacher interactions.***
   We find significant between-school differences in the level of parent-teacher interactions before school suspension. These differences are predicted by a school leadership level indicator — the strength of the school's e-learning plan and strategy. This finding indicates that, in addition to providing student-centred and technology-enabled learning, schools with effective e-learning plans are more able to forge productive parent-teacher interactions before school suspension.

Based on the above research findings, the team recommends the following for different stakeholders regarding parenting under the New Normal:
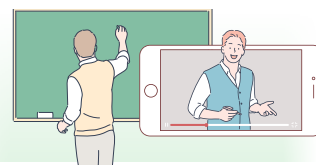
For parents:

Understanding, empathy, socioemotional support and encouragement are more important for your child's well-being than giving specific guidance or coaching on their school work.

For schools:

Communicate with parents on school e-learning arrangements and expectations, work with NGOs and community partners to provide "digital parenting" education, and reach out to parents who are in need of support.

For students:

Communicate with parents and reach out to teachers and school leaders when you encounter difficulties with different forms of online learning or cyber-risks.

For parent-teacher associations:

(1) Identify good practices and need areas in parenting support provisions,
(2) Solicit government and community resources for (digital) parenting education support.
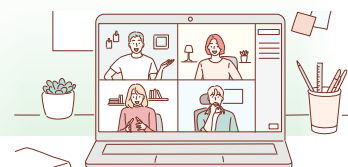
For child/family support NGOs:

In addition to the provision of material support, such as digital devices and internet connectivity, provide guidance to parents on how to connect with their children. Parenting guidance is needed irrespective of the parents' SES, although their needs may differ.

For policy makers:

Online learning at home puts a greater responsibility on parents to understand and support their children's learning. Policy support to enhance online home learning preparedness for parents through different initiatives involving schools and parent organizations, NGOs are necessary.

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