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Connection before content: using multiple perspectives to examine student engagement during Covid-19 school closures in Ireland

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The impact of the Covid-19 school closures on children and young people has been significant, with research suggesting that it has disproportionately negatively affected students from areas of socio-economic disadvantage. With the move to remote schooling, the focus on ensuring classes continued to ‘cover the curriculum’ left little space for considering how students were engaging with learning, or the factors that influenced their engagement. This paper aims to examine the extent to which student-teacher relationships, and modes of online teaching and learning, impacted on student engagement during Covid-19 school closures in Irish second-level schools. Using data from two research studies, this paper provides insights into the teacher experience of school closures and a more focused view of the experiences of second-level students attending schools in areas of socio-economic disadvantage. The findings highlight two things: firstly, that meaningful connection between teachers and students matters for student engagement in remote learning, particularly for students at risk of educational disadvantage. Secondly, where teachers use innovative teaching and learning methods and encourage the development of students’ key skills there is increased student engagement. This paper acts as a timely reminder of the importance of relationships in student engagement especially during periods of crisis.

Keywords: COVID-19; school closures; engagement; educational disadvantage; socio-economic disadvantage

Research background and rationale

The challenges presented by the COVID-19 school closures have been the topic of educational research both in Ireland and internationally (Darmody, Smyth, and Russell 2020; Eyles, Gibbons, and Montebruno Bondi 2020). With the sudden change in education from in-school to remote learning, early research findings showed clear challenges for continuity of learning and school engagement for students in general, but especially for students who experienced educational disadvantage (Devitt et al. 2020; Green 2020). Certain vulnerable groups were identified as

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being more at risk of the negative impacts of school closures, which ‘amplified and reinforced the digital, social, emotional, cultural and economic inequalities’ (European Centre for the Development of Vocational Training 2020). Initially, much of the debate focussed on the ‘digital divide’: low student engagement due to a lack of access to devices and broadband for some students (Devitt et al. 2020; Darmody, Smyth, and Russell 2020; GUI 2021). There has been less focus on the extent to which the well-established inequalities of social and cultural resources, and the resulting disparity of opportunities (Mountford-Zimdars and Sabbagh 2013; Walker 2015), have been exacerbated by the school closures.

This paper examines student engagement in Irish second-level schools during the Covid-19 school closures in the Spring of 2020. Using data from both teachers and students, it examines the key barriers to engagement for students, in particular those experiencing educational disadvantage. This work is situated against the backdrop of extensive national and international research that highlights the importance of positive student-teacher relationships (Gorard and See 2011), relatable role models (St John 2013), a student-centred, creative approach to pedagogy (Boni and Walker 2016; Naidoo 2015), and advice and guidance (McCoy and Byrne 2011), particularly for students in areas of socio-economic disadvantage. In particular, this paper explores the extent to which student-teacher relationships and modes of online teaching and learning interaction, impacted on student engagement during school closures.

The analysis is based on the following research question:

- What are the material, relational and pedagogic aspects that enhance or detract from learner engagement during remote learning?

**Theoretical perspective**

The construct of student engagement is a contested topic, which can range from a narrow focus on specific behaviours such as school attendance, to a broad, multidimensional perspective incorporating behavioural, emotional and cognitive factors (Eccles and Wang 2012). Within this contested area however, there is consistent evidence of the importance of both a narrow and a broad conceptualisation of engagement in relation to student outcomes (Janosz 2012). Educational theory and empirical research have long explored the interactions between learning and social, cultural, and relational factors (Christenson, Reschly, and Wylie 2012).

Extensive national and international research has highlighted the importance of children and young people’s positive attitudes to schooling, in relation to their educational experiences and outcomes (McNamara et al. 2020; Wang 2010). Longitudinal studies in Ireland have shown primarily positive attitudes to school, although these are socially stratified, with students from homes of lower socio-economic status reporting less positive attitudes to education (Smyth, Banks, and Calvert 2011; GUI 2016; McNamara et al. 2020). School closures have had a significant negative impact on attitudes to school with 40% of students not enjoying school (Flynn et al. 2020), and 35% of children not liking remote learning (Symonds et al. 2020). This is reflected in the level of difficulty with home learning reported in the Growing Up in Ireland Covid survey with over half of 12-year olds reporting at least some difficulty (GUI 2021).
Relationships inside and outside school

Positive educational outcomes are associated with positive school climate, low-friction relationships between home and school, relatable role models, and high expectations of students, their families, and their teachers in relation to educational attainment and engagement (Smyth, Banks, and Calvert 2011; GUI 2016; Janosz 2012; St John 2013). Wentzel (2012) emphasises how the quality of school and classroom relationships are critical to the effectiveness of practices to support learning and achievement. Many studies have noted the influence of the quality of student-teacher relationships as well as the impact of pedagogy (Gettinger and Ball 2007; Hipkins 2012) on student engagement. However, students in DEIS schools are more likely to experience teacher-directed, rote learning, rather than active learning pedagogical approaches, causing increased likelihood of disengagement (Keane 2013; Williams et al. 2011).

Recent empirical evidence drawing on results from PISA and TALIS, shows the interplay between contextual, social, and relational factors and a range of student outcomes (OECD 2021). In a pre-Covid context, the results indicated that a number of factors contributed to positive student-teacher relationships. This included increased teacher time spent on extra-curricular activities (e.g. homework clubs), and on assessment (OECD 2021), particularly taking a broad view of assessment and feedback as dialogic process (Nicol 2010). These findings support existing research on how classroom teaching processes impact on student attitudes and engagement (Blazar and Kraft 2017; Keane 2013).

Methodology

This paper examines two perspectives on student engagement drawn from survey data collected during school closures (Devitt et al. 2020; Bray et al. 2020). Data were collected from post-primary teachers (taking student engagement as participation) and students (exploring active engagement with education: affective and behavioural measures). Analysis of these two data sources has allowed barriers to student engagement with education in a remote learning context to be interrogated through two different, but fundamentally interrelated, lenses.

Voluntary response and snowball sampling methods were used to recruit the sample of teachers, with the invitation to contribute circulated widely through existing school networks as part of an ongoing longitudinal study (Bray, Tangney, and Hannon 2021), professional networks and social media. A total of 723 post-primary school teachers from 102 schools completed the survey. Given that there are over 28,000 s-level teachers and 723 schools in Ireland this sample represents approximately 3% of the post-primary teacher population.

Voluntary response sampling methods were used to recruit students, with participants who had provided consent to be involved in the study sent a link to the online survey by their schools. The student sample is made up of 1004 post-primary participants, from across the 6 year-groups. This sample was drawn from a population of students in 15 Dublin-based, post-primary schools linked to the Trinity Access widening participation programme (Bray, Tangney, and Hannon 2021). All of the respondents attend schools in areas of low progression to higher education; twelve of the schools have DEIS status and the other three schools are
all in the Department of Education and Skills’ School Completion Programme. Drawing participants from this cohort has permitted an in-depth focus on factors effecting student engagement with education.

It is important to note that the student sample was self-selecting from within an existing longitudinal study (Bray, Tangney, and Hannon 2021). As a result, students who opted to take part are likely to be those who are more engaged with their education. Furthermore, the respondents in this sample reported adequate access to the necessary resources to facilitate their participation in online learning, presenting a more positive picture than illustrated through related research (Authors 2020a; Mohan et al. 2020; GUI 2021). Despite these limitations, which are taken into account in the results presented below, this work provides important insight into the factors that supported this cohort to stay engaged.

As noted above, student engagement is considered from the perspective of the teacher and the student. The teacher measure relates to the percentage of students engaging with online learning in their classes, with low engagement defined as an average of less than 30% of students engaging with learning across class groups. The student measure uses the Bundick (2010) active engagement with education scale, which refers to the relevance and enjoyment they associate with education.

Findings and results
This section explores levels of student engagement with remote learning from the teacher perspective, and then, having identified the most common indicators of low engagement, examines these in-depth from the perspective of the student.

Teacher perspectives
Overall, teachers reported a drop in student engagement with learning during the period of remote learning. In response to the question ‘Since school closures, and for each of the following types of students, do you feel that “attendance” and engagement with schooling has decreased, stayed the same, increased?’, Figure 1 shows a

![Figure 1. Changes in engagement by student type.](image-url)
drop in engagement of almost 40% for students considered ‘regular attenders’ by their teachers and 70% for students considered ‘reluctant attenders’.

The key barriers to student engagement with online learning identified by teachers include a lack of interest from the student (19%) and a lack of support from the home (18%), as well as factors relating to availability of devices (18%) and technological knowhow (14%) (Figure 2). It is notable that the barrier that teachers indicated as having the strongest negative effect on student learning was a perceived lack of student interest. This construct and the factors that influence it, are discussed in the section on student perspectives below. It is worth noting that the technical barriers (access to devices, broadband and data) are considered less impactful than motivational and social barriers (interest and home support).

Although challenges in relation to student engagement were identified in all contexts, our research indicates that low student engagement was significantly more prevalent in DEIS schools (Devitt et al. 2020). Furthermore, the impact of different kinds of barriers was significantly different in DEIS and non-DEIS contexts (Table 1). While social and motivational barriers were identified as being the most impactful across all school types, in DEIS settings, these factors are significantly more of a hindrance to engagement, outweighing the already considerable challenges associated with material resources. These findings align with pre-Covid research that acknowledges alienation from schooling in DEIS contexts influenced by overly didactic pedagogical approaches, negative family history of education, and higher than average rates of absenteeism (McCoy and Smyth 2011; McCoy et al. 2014; St John 2013).

In addition to the barriers to student engagement explicitly identified by teachers, the research also explored the different modes of educational interaction used by teachers during the period of remote learning. Once again, significant differences were identified between responses from teachers in DEIS and non-DEIS schools in relation to how they communicated with their students. Of particular interest to this work is the lower levels of provision of feedback and assessment of submitted work in DEIS ($M = 4.24$, $SD = .927$) compared to non-DEIS ($M = 4.41$, $SD = .822$) schools ($t(674) = 2.579$, $p = .01$). This is notable as, within DEIS contexts, those teachers who assessed and provided feedback on their students’ work were significantly less likely to report low levels of student engagement with remote learning (Devitt et al.

![Figure 2. Teachers’ perception of barriers to student engagement.](Irish Educational Studies 435)
Once again, these findings confirm the pre-Covid findings of the Growing up in Ireland (2016) report, that students in DEIS schools are significantly more likely to be exposed to traditional, didactic and teacher-led approaches to teaching and learning.

**Student perspectives**

This section examines the concept of active engagement of students attending schools in areas with low progression to higher education. It is especially pertinent to examine this from a student perspective given that the most significant barrier to student engagement identified by the teachers was a lack of student interest.

It is important to acknowledge that, despite the difficulties and uncertainty faced by students during lockdown, respondents to this survey replied reasonably positively on the five-point (1–5) active engagement scale ($M = 3.51$, $SD = 0.669$). This is likely to be reflective of the self-selecting nature of the sample.

Correlation analysis was used to identify statistically significant relationships between pedagogical approaches and students’ active engagement scores. Significant positive relationships were identified with practices that support the development of key skills, with the strongest positive correlations (medium effect size) associated with approaches that encouraged critical thinking ($r(611) = 0.25$, $p < .001$) and creativity ($r(610) = 0.25$, $p < .001$). Active engagement scores were also significantly positively associated with higher levels of feedback from teachers ($r(532) = 0.14$, $p = .001$) and from peers ($r(531) = 0.10$, $p = .018$).

These results suggest relationships between pedagogical practices, levels of interaction between students and teachers, and students’ active engagement with education. However, it is important to bear in mind that multiple factors can occur concurrently and interact. In order to further understand the interplay of characteristics that shape low levels of active engagement, it is necessary to control for multiple factors using a regression model. Multilevel binary logistic models were developed in order to identify specific factors that act as predictors of low levels of active engagement, where low active engagement reflected the lower quartile (scores below 3.14) of responses. Factors that were considered in the model included student demographic characteristics, pedagogy, and social and relational student variables (Figure 3).

One of the student characteristics that was identified as predictive of low active engagement was related to age and stage in school, with students in Junior Cycle three times less likely to report active engagement with education than in other year groups. In line with existing research on student engagement in second-level education (Hannon 2018; McManus 2013; Smyth 2017), low levels of engagement were particularly prevalent for students in their second and third year of school. Findings
also highlight the role of parental involvement in maintaining student engagement; as in the earlier research by Smyth (2017), higher student engagement was predicted by higher parental involvement.

Pedagogical practices that supported development of key twenty-first century skills such as collaboration, project work, creativity, critical thinking and self-direction were also highlighted. Students with lower levels of exposure to these practices were more likely to report low active engagement with their education.

The findings show how low levels of student wellbeing and poor student-teacher relationships were both found to be predictive of low scores on the active engagement scale, even when controlling for all other factors (Figure 3). Once again, this aligns with previous research that highlights the importance of student wellbeing (Frisch et al. 2005; Lewis et al. 2011), and positive relationships with teachers (Authors 2019; Clement 2010; Pianta, Hamre, and Allen 2012).

### Discussion and conclusion

It is well established that the Covid-19 pandemic has had a dramatic impact on education, and disproportionately so for students from areas of socio-economic disadvantaged. In line with existing research, this paper shows that student engagement declined overall during school closures (Doyle 2020; Mohan et al. 2020). Three primary factors were identified in relation to this decline: material, pedagogical, and relational. The main determinant for low engagement however, was the disadvantaged status of the school, with teachers in DEIS schools significantly more likely to report low student engagement.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.703</td>
<td>0.942</td>
<td>-0.241</td>
</tr>
<tr>
<td>Students characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Junior Cycle</td>
<td>1.130***</td>
<td>1.222***</td>
<td>1.231***</td>
</tr>
<tr>
<td>• Parental involvement with student’s education</td>
<td>-0.439***</td>
<td>-0.372**</td>
<td>-0.262*</td>
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<tr>
<td>Teaching and learning</td>
<td></td>
<td></td>
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<tr>
<td>• 21C T&amp;L</td>
<td></td>
<td>-0.991**</td>
<td>-0.813*</td>
</tr>
<tr>
<td>Student experience</td>
<td></td>
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<tr>
<td>• Low wellbeing</td>
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<tr>
<td>• Poor student-teacher relationship</td>
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<tr>
<td>Nagelkerke R2</td>
<td>0.084</td>
<td>0.107</td>
<td>0.184</td>
</tr>
</tbody>
</table>

Source: Trinity Access Covid-19 Student Survey, 2020

Note: From a logistic regression model.

*** p<.001; ** p<.01; * p<.05; © p<.10.

Figure 3. Predictors of low active engagement with education (Authors 2020a, 56).
Using quantitative measures drawn from two previous studies, this research provides a broad picture of the teacher experience and more focused view of the experiences of students attending schools in areas of socio-economic disadvantage. Our findings highlight that the move to remote schooling appears to have further compounded existing inequalities with regards to material, social and cultural resources. Access to appropriate devices, space and other material resources emerged as an issue for many students, and was well-documented as being particularly problematic in DEIS schools (Darmody, Smyth, and Russell 2020; Devitt et al. 2020). This paper however, also highlighted that teachers considered these material factors as less impactful than barriers more generally associated with social and cultural resources (interest and home support). This suggests that in the move to online learning, the social and cultural resources that had been supplemented by in-person contact in schools were more difficult to maintain, exacerbating the pre-existing disparity of opportunities (Mountford-Zimdars and Sabbagh 2013; Walker 2015).

It is well established that student engagement, particularly in disadvantaged contexts, are enhanced by positive relationships with trusted adults (teachers and parents), and creative and student-centred approaches to teaching and learning (Gorard and See 2011). The research presented in this paper suggests that in an online environment, the importance of these aspects of education has been amplified: where students experience student-centred, creative pedagogies, and when student-teacher connections are meaningful and positive, students are less likely to disengage.

These findings demonstrate how the Covid-19 pandemic can offer a unique opportunity to reconsider our focus on teaching and learning, drawing attention to the critical importance of putting meaningful connections with our students at the heart of education.

Disclosure statement
No potential conflict of interest was reported by the author(s).

Notes on contributors
Dr Aibhin Bray is lecturer and researcher in education and leader of the mathematics strands in the School of Education in Trinity College Dublin. She has worked in widening participation for a number of years and continues to act as Research Advisor for Trinity’s widening participation programme: Trinity Access. In addition to mathematics education, her research focuses on the development of teaching and learning practices that positively influence engagement with education and support the development of key skills and competences.

Dr Joanne Banks is a lecturer and researcher in inclusive education at the School of Education in Trinity College Dublin. She has worked for over a decade in social research focussing on inclusive education, the school experiences of students with disabilities and educational inequality more generally. Her research focuses on inclusive education in policy and practice and examines system and school level practices that promote equity for all students. She has published widely on the school experiences of students with disabilities and those from socio-economically deprived backgrounds.

Dr Ann Devitt is a lecturer and researcher in language and literacy education at the School of Education in Trinity College Dublin. She is currently Director of Research at the School and Academic Director for Learnovate, the Enterprise Ireland funded research and innovation
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Eilís Ní Chorcora is the Coordinator of Research and Impact at Trinity Access, Trinity College Dublin. A qualified primary school teacher with a postgraduate degree in Psychology, she works to support people from areas of low progression to higher education to achieve their full educational potential. Her research interests are in the area of widening participation among students from under-represented backgrounds as well as child and adolescent health and wellbeing.

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