Does bad weather affect student performance in school?
31 March 2017, by Brendon Hyndman

All schools in south-east Queensland, and many in northern New South Wales, have been closed following tropical cyclone Debbie, which hit the area this week causing large-scale destruction.

An increase in extreme and unpredictable weather events in Australia continues to occur, which often disrupts students' attendance at school.

In July 2015, over 40 schools were closed in the Blue Mountains and Southern Highlands of NSW due to a snowstorm.

In June 2016, around 12 schools closed in New South Wales due to a weekend of storms.

Power outages due to severe weather in South Australia in September 2016 forced schools to shut.

Bushfires across southern Western Australia in November 2016 caused several schools to close.

In Tasmania, schools have even had to close due to high winds and heavy rainfall.

Despite these examples, there is little statistical information on the number of unplanned closures that take place in Australian schools.

So are students losing out from school closures?

It's obvious, but to get the most out of education, students should go to school every day. In cases of extreme whether, students don't always have that option.

However, research shows that authorised absences from school (such as during extreme weather) are less problematic for students than absences that are not authorised (no explanation or reasoning).

This is because unauthorised absences tend to reflect patterns and behaviours of student disengagement, or the possible negative attitudes of parents towards education that students adopt and carry with them through schooling.

The level of impact on students' educational performance is all to do with the length of time that a student is absent from school and how regularly this occurs.

Missing school on a regular basis is a problem though

Research shows that absence from school on a regular basis has a negative impact on numeracy, reading and writing performance.

Students who miss more than 10% of school days across a school year or 10 days per term are at risk of poorer academic achievement.

In New South Wales, the average absence rate for public school students in 2013 was approximately 7%, which suggests that additional days off can be placing students at educational risk.
Little research on impact of unplanned school closures

Until 2014, there had been little international evidence of the frequency, causes, and characteristics of unplanned school closures, despite the impact of extreme weather events on students and their school communities.

The research that investigated school closures was largely based around the prevention of contagious illnesses such as influenza.

In the US from 2011 to 2013, it was revealed that there were almost 21,000 unplanned school closures – 16,000 of these resulting from extreme weather (this affected around 27 million students).

And reports show that state-wide assessment results in the US tended to be lower in areas where schools had to make unplanned closures to snowfall, compared to other years when schools didn't have to close.

Wet weather

Even if the weather isn't bad enough to spark closures, it can still disrupt the school day.

Wet weather, in particular, means that students are less likely to take part in or enjoy physical education and recess time activities, for example.

If such weather occurs on a regular basis, it makes it harder for school students to meet the national physical activity guidelines, which are designed to ensure kids are keeping sufficiently active.

It's important, then, for the schools to cater for these situations and provide spacious, well equipped indoor school spaces to ensure kids can still take part in physical education and recess time activities.

Wet weather can also be stressful for teachers in primary schools who have to keep children safe while they play outside on slippery surfaces.

Learn at home instead?

Similar to the online learning platforms used for rural/distance teaching programs in Australia, there are online school learning programs in place in the US for students to learn at home during school closures.

During this time, teachers can communicate with students and parents and provide them with updates, and also set students work to do.

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