

Cut chores and kill chill time: new advice to boost children's academic achievement

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Determining a child's best daily balance of sleep, activity and relaxation can be a challenge, but if you're hoping to improve their academic results, then it's time to cut back on chores and chill time, according to

new research from the University of South Australia.

Exploring associations between 24-hour [daily activities](#) (sleep, sedentary time, light [physical activity](#) and moderate-to-[vigorous physical activity](#)) and academic [achievement](#), the world first study found that the less time children spent in light physical activity, the better their academic outcomes.

Specifically, researchers found that lower light physical activity is related to better numeracy and literacy, and that higher sedentary time is related to better literacy.

NHMRC Early Career Research Fellow, UniSA's Dr. Dot Dumuid says the findings highlight how light physical activity can drain time from other movement behaviours at the detriment of academic achievement.

"When we talk about what makes up a child's best day for academic achievement, we have to consider all the different elements of that day—sleep, exercise, activity, rest and play—but of course, within the boundaries of 24 hours," Dr. Dumuid says.

"If a child is spending more time in light physical activity—doing chores, playing computer, or just pottering around—then they have less time for sleep, study and moderate-to-vigorous physical activity, all of which are good for academic achievement.

"In some ways it's like Newton's law—for every action, there is an equal and opposite reaction—yet in this instance, every increase in one behaviour has a corresponding and equal decrease in one or more of the remaining behaviors.

"So, you could say: it's not only what you do, but what you don't do that contributes to academic success."

The study assessed 528 year-5 children (age 9-11 years) from the multinational cross-sectional ISCOLE study, and 1874 children (age 11-12 years) from the CheckPoint phase of the Growing Up in Australia study, with movement behaviours collected via 7-day accelerometry, and academic achievement tested across literacy and numeracy skills as determined by NAPLAN.

Light physical activity incorporated tasks such as doing chores, sitting at the computer, playing video games, preparing or eating food and general pottering around.

The results were consistent across Australian samples, different age groups, different academic standards and achieved with different accelerometers, indicating the robustness of the study.

Co-researcher, Professor Tim Olds says that poorer [academic achievement](#) is unlikely to be related to light physical activity per se, but that it displaces the remaining behaviours.

"Each day has a fixed budget of 24 hours, so it's not so much about the fact that children engage in light physical activity, but by doing so, they reduce the amount of time they could be spending in other activities," Prof Olds says.

"Our results are consistent with the 24-hour movement guidelines of around one hour of moderate-to-vigorous exercise per day, less than two hours of recreational screen time, and between 9-11 hours of sleep per night.

"If parents can aim for their children getting enough sleep, enough exercise and sufficient study time, then their [children](#) might not even have enough time for [light](#) physical activity—problem solved!"

More information: Amanda Watson et al. Associations Between 24-Hour Time Use and Academic Achievement in Australian Primary School–Aged Children, *Health Education & Behavior* (2020). [DOI: 10.1177/1090198120952041](https://doi.org/10.1177/1090198120952041)

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