



TeachING about climate change in schools whilsT addressING fake news and constructive journalism



Actitudes y conocimientos de los estudiantes sobre el cambio climático

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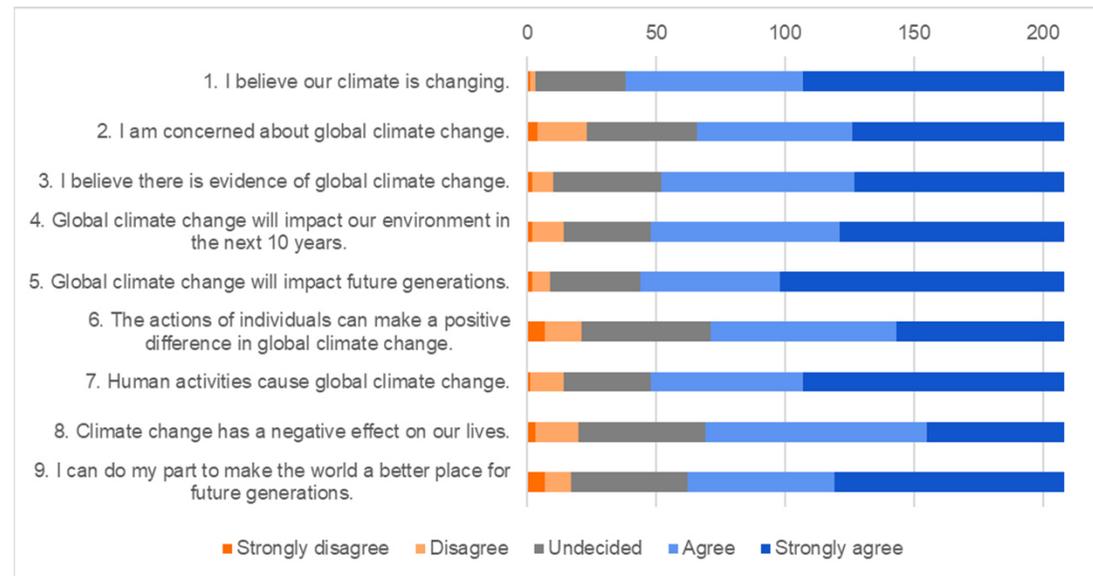
Methodology

Before starting with the Tintin curriculum, we administered to participating students a survey that consisted of questions about their climate change beliefs and intentions, pro-environmental behaviours, and climate change knowledge. 208 students responded to the survey.



Beliefs about climate change

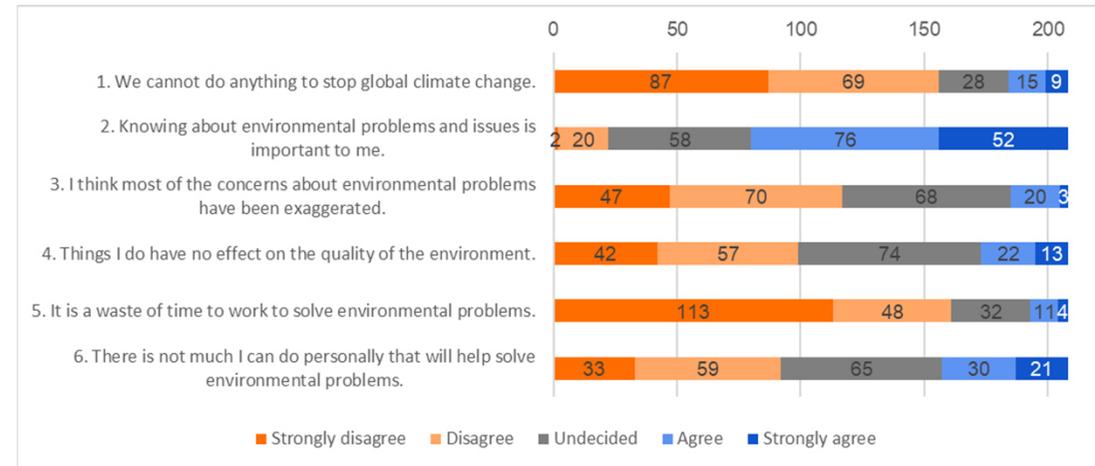
- ✓ Our survey included questions that addressed students' beliefs about the existence, causes, severity/ general consequences and possibility of mitigation of climate change.
- ✓ Students' responses to these were largely positive.
- ✓ We found that students' age did not significantly affect their beliefs about climate change.





Intentions regarding climate change

- ✓ These questions were meant to gauge students' willingness to take action in the face of climate change.
- ✓ Students largely reported a high degree of willingness to combat climate change. Previous studies about intentions to address climate change have provided mixed results.
- ✓ Students aged 11-14 reported a statistically significant higher intention score than students aged 15-17.





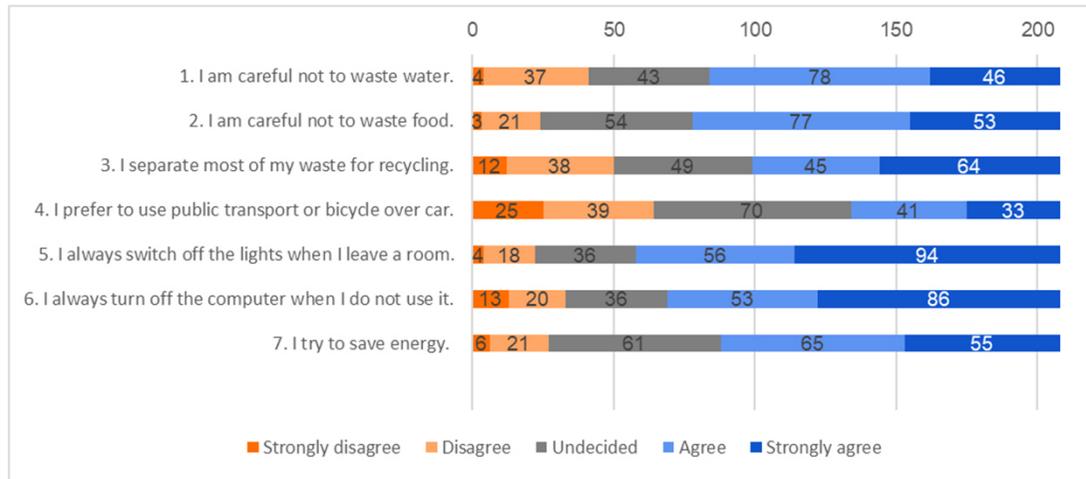
The relation between beliefs and intentions

The theory of planned behaviour (Ajzen & Fishbein, 1980) suggests a link exists between beliefs and intentions. In our study, a strong positive correlation was found between students' climate change beliefs and intentions, $r(206) = .60, p < .001$. This means greater belief in climate change was reported alongside stronger intentions to act upon climate change.



Pro-environmental behaviour

- ✓ Our results regarding students' pro-environmental behaviour echo the results of previous research. Adolescents are more willing to take climate change mitigation actions when such actions do not require much effort and do not lead to major inconvenience.
- ✓ However, it must be pointed out that an individual's pro-environmental behaviour stems from a number of factors, such as attitudinal factors, personal capabilities, contextual factors, and habits. It is possible that contextual factors such as municipal recycling practices and the availability of public transport have a role to play in students' behaviour.



Climate change knowledge

- ✓ The average score of the students was 6.1, out of the possible maximum of 15.
- ✓ The students' low average score on the knowledge test is in line with previous research. A number of studies have shown that climate change misconceptions or naïve knowledge (Chi & Roscoe, 2002) about the topic are widely prevalent.
- ✓ It was noteworthy that the younger students' scores were higher than the older students' scores in a statistically significant manner. It was expected that as the older students had been exposed to more information and had studied at least some aspects of climate change science at school their performance would be better than the younger students. Our result is in contradiction with previous research on the topic (Dijkstra & Goedhart, 2012).

✓ The students' misconceptions were related to:

The causes of climate change:

- A large portion (91%) of the participants in our study incorrectly identified the thinning of the ozone layer as a cause of climate change.
- The emission of heavy metals was incorrectly identified by 85% of the students as contributing towards climate change.
- The production of nuclear energy is one of the most carbon-neutral energy production methods, but was named as a cause of climate change by 92% of the students.

The consequences of climate change:

- A majority of students (93% and 87%, respectively) responded that climate change can lead to aerial oxygen deficiency and has caused the acidification of forests.