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Abstract

Experiences of Using a Telepresence Robot During the COVID-19 Pandemic

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Abstract

Background: School absenteeism due to mental disorders and physical disabilities is an international problem. When children are absent from primary school, they do not receive the fundamental educational foundation they are entitled to. This affects their further opportunities to receive higher education later in their life. Studies show that telepresence robots can include absent students in the teachings and social life at school.

Objective: The purpose of this project was therefore to investigate the opportunities and limitations of using an OriHime telepresence robot to teach absent primary school students during the COVID-19 pandemic.

Methods: This project was a case study from a primary school in Denmark. The study included primary school students (n=3), teachers (n=5), parents (n=2), a school principal, a pedagogue, a school absentee consultant, and a psychologist. The 14 participants were interviewed based on interview guides. In all, 20 hours of observation of OriHime have been made in the classroom conducting in the pilot test. Afterward, OriHime was tested by an absent primary school student for a 2-month period during the COVID-19 pandemic.

Results: The absent students found that OriHime was useful and a good alternative for them to be able to attend class. Teachers and pupils found that OriHime was useful in a class setting but not when conducting outdoor activities. The parents found that OriHime could include the absent students in the teachings and social life in class.

Conclusions: The absent students experienced that OriHime could function as an educational and social tool during COVID-19 and that it was possible to participate in the indoor teachings while being physically absent. The absent students, teachers, and parents found OriHime useful with opportunities but stated some limitations. Based on the results, a guideline for the implementation of OriHime in Danish primary schools was produced.

Conflicts of Interest: None declared.

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KEYWORDS

telepresence; COVID-19; school absenteeism; primary school; user experience; social robot

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