

### 31. COMPARATIVE EFFECTIVENESS OF SEQUENTIAL HYGIENE EDUCATION INTERVENTIONS AMONG PRIMARY SCHOOL STUDENTS IN THAILAND: A RANDOMIZED CONTROLLED STUDY.

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=496s>

**BACKGROUND:** Infectious diseases remain a significant global health challenge, particularly in light of recent pandemics. Effective hygiene education is crucial in mitigating the spread of these diseases, especially among school-aged children. This study aimed to evaluate the effectiveness of two sequential hygiene education interventions—classroom teaching followed by animated videos (C2T) versus animated videos followed by classroom teaching (T2C)—in improving hygiene-related knowledge and practices among primary school students in Thailand. **METHODS:** A total of 2,188 students from six primary schools were enrolled in this randomized controlled study. Participants were randomly assigned to either the C2T (n=1,100) or T2C (n=1,088) intervention groups. Knowledge assessments were

conducted at three points: before the interventions (pre-test), after the first intervention (post-test 1), and after the second intervention (post-test 2). Classroom teaching covered a comprehensive set of 15 hygiene-related questions (Q1-Q15), while the animated videos focused on four key concepts (Q1, Q4, Q7, and Q10). The interventions were evaluated based on the improvement in test scores, with statistical significance determined using p-values.

**RESULTS:** Both interventions led to significant improvements in students' hygiene knowledge from pre-test to post-test 1 and post-test 2 ( $p < 0.001$ ). The T2C group showed a larger initial improvement from pre-test to post-test 1 (mean change = 0.87, 95% CI [0.82, 0.93]), compared to the C2T group (mean change = 0.66, 95% CI [0.60, 0.71]). However, from pre-test to post-test 2, the C2T group exhibited a slightly greater overall improvement (mean change = 0.42, 95% CI [0.37, 0.48]) compared to the T2C group (mean change = 0.31, 95% CI [0.25, 0.37]). These results suggest that while the T2C approach is more effective in the short term, the C2T approach may lead to better long-term retention of knowledge. **CONCLUSIONS:** Both educational sequences effectively enhanced hygiene knowledge among primary school students, with each approach offering unique advantages. The T2C method provides a stronger immediate impact, while the C2T method supports sustained learning. These findings highlight the importance of considering the sequence of educational interventions to maximize their effectiveness in promoting hygiene practices.

**Key Words:** Health Education; Infectious Disease Transmission; Randomized Controlled Trial; Students; Hygiene.