

VENOMventure/ a VENENatura



Key findings from summative research on an educational escape game for families

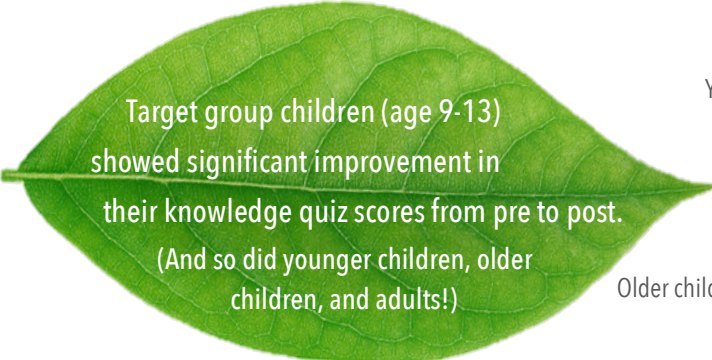


The premise...

- 1 escaped carnivorous plant
- 45 minutes
- 7 wacky puzzles designed to **teach concepts for reading evolutionary trees**
- Children age 9-13 and their families

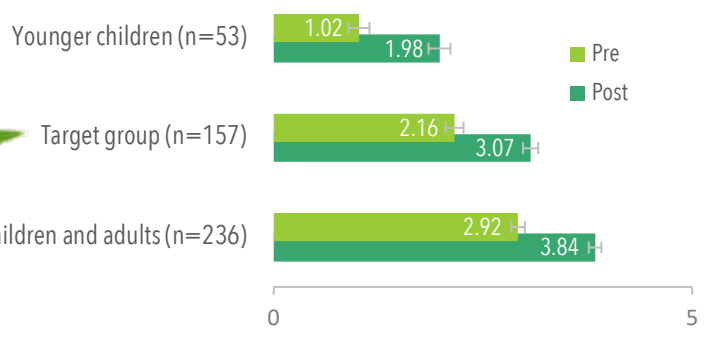


METHODS: matched pre/post surveys with 211 adults and 238 children, game observations and post-interviews with 51 groups (174 individuals)

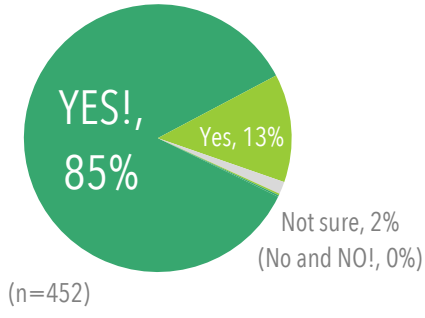


Target group children (age 9-13) showed significant improvement in their knowledge quiz scores from pre to post. (And so did younger children, older children, and adults!)

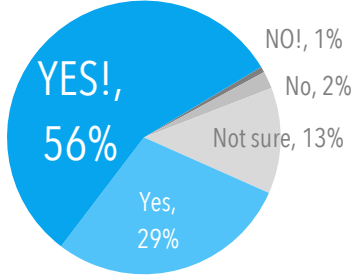
Evolutionary Tree Quiz Results



I had a lot of fun playing this game.



This game helped me understand evolutionary trees.



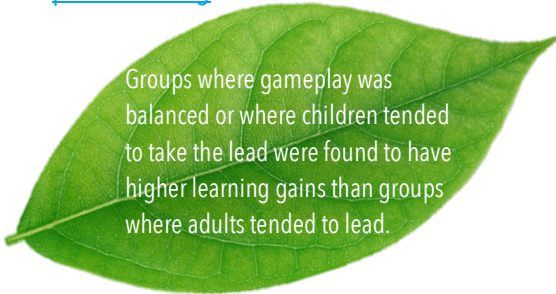
Both adults and children reported highly enjoying the game. In post-game interviews, 67% of groups said they learned about reading evolutionary diagrams and/or evolutionary traits, ancestors, and descendants.

VENOMventure/aVENENOtura

Summative research results

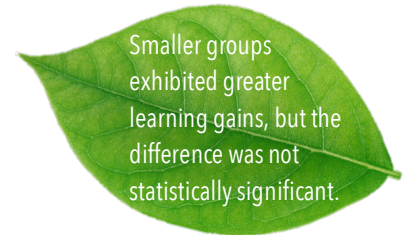
Factors found to be correlated with learning

- Balance of adult versus child-driven puzzle solving



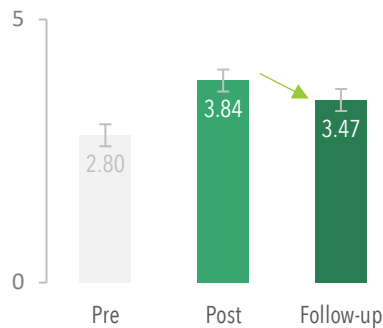
Factors NOT found to be correlated with learning

- Previous experience with escape rooms
- Group size

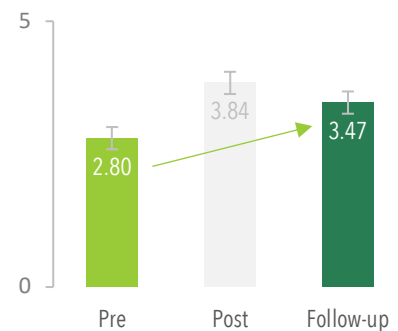


Sixty-six participants also responded to a follow-up survey one month after their game experience, and quiz scores showed they retained some of their learning from the game. →

Scores dropped significantly from post quiz to follow-up...



...but still remained significantly higher than the pre quiz.



The VENOMventure project is led by Dr. Anna Thanukos (UC Berkeley) and Dr. Teresa MacDonald (University of Kansas) and supported by a Science Education Partnership Award from the National Institute of General Medical Sciences (part of the National Institute of Health). Research and evaluation support is provided by Rockman et al Cooperative under Claire Quimby. This inflatable escape game pop-up has traveled to six different library and museum sites from summer 2023 to present. Research findings here are from data collected at the first four sites. Any opinions, findings, conclusions, or recommendations expressed in this report are those of the research team and do not necessarily reflect the views of the National Institute of Health. For additional information on this project, please contact thanukos@berkeley.edu.