

# Cross-sectional and longitudinal web surveys among children: Is there a gamification effect?

## Introduction

- Gamified surveys : rules and goals; an involving narrative; challenging tasks or quests; regular feedback and rewards.

- No experiments have been published with a *focus on younger respondents*.

## Research Questions

**RQ 1:** Is there a *positive gamification effect* in web surveys among children and adolescents 7-15 y.o.?

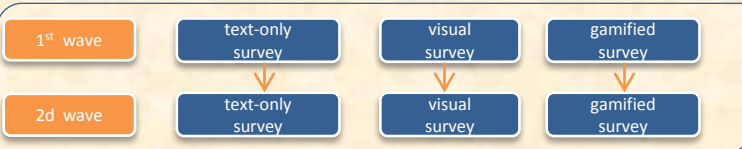
**RQ 2:** Would a gamification effect differ for *cross-sectional and longitudinal surveys*?

## Hypotheses

**H1:** Lower breakoff rates and a lower measurement error in cross-sectional gamified web surveys.

**H2:** Higher participation rates in the 2<sup>nd</sup> wave in the gamified survey. No difference in test-retest reliability correlations between gamified and non-gamified surveys.

## Experimental Design



## Data Collection

- Children and adolescents **7-15 y.o.**
- Volunteer online access panel in Russia (Online Market Intelligence)
- 1st wave:** N=1,050; **participation rate 10.0%** (February 2014)
- 2nd wave:** N=737; **participation rate 70.7%** (April-May 2014)

## Questionnaires

- 79 items: questions about school and Internet usage

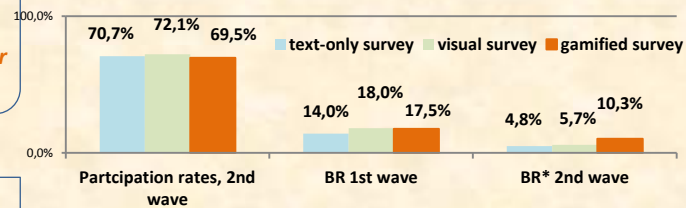
text-only survey	no images, Flash or Javascript-based questions
visual survey	background color, images, Flash-based questions, Javascript-based slider bars
gamified survey	the same design as the visual survey + gamification features

### Gamification features:

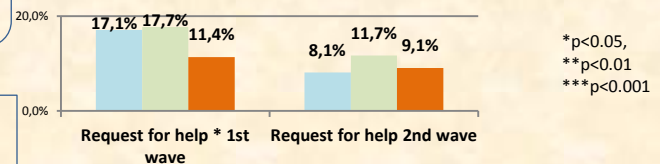
- Narrative** – traveling in the Antarctic and helping penguins
- Rules** – helping penguins, responding to questions, and receiving points
- Challenges** –helping and saving as many penguins as possible
- Rewards** – points and personalized feedback

## Results

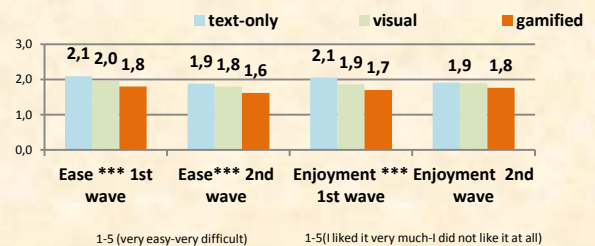
### Participation rates and breakoff rates (BR)



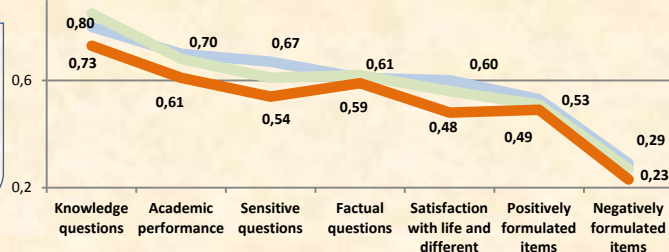
### Request for help



### Survey evaluation



### Average test-retest reliability correlations



### Measurement error

No differences in item nonresponse rates, straightlining, rate of socially desirable responses, rate of “don’t know” responses, primacy effects.

## Main findings and implications

- Gamified surveys** among younger respondents can be helpful in *cross-sectional studies* (ease and enjoyment of completing the survey).

- However, they distract the attention from the main task, which result in *lower reliability in longitudinal surveys*.

- **What can be done in longitudinal web surveys?**

- different narratives,

- new gamified features introduced sequentially