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HEALTHY GAMES

- Games as a method to promote health

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CONTENT OF THE PRESENTATION

- **What is a health game and gamification?**
- **Why to use games or gamification for health promotion?**
- **Examples of health games**



WHAT IS A HEALTH GAME AND GAMIFICATION?



HEALTH GAMES

- **Health games are games that are developed and/or used for different kinds of health related purposes**
 - ➔ The health related goal is embedded into the game's design
 - ➔ Game elements are designed to influence determinants of the targeted health behavior or the actual behavior at the time of the game play
- Entertaining games (such as active video games) can be called as health games as well



GAMIFICATION

- Game elements can be used also in a non-game context
= ***gamification***
 - The purpose is to utilize the elements that make games interesting
 - These kinds of elements are for example points, levels and leaderboards

(Deterding et al. 2011; Hamari et al. 2014)



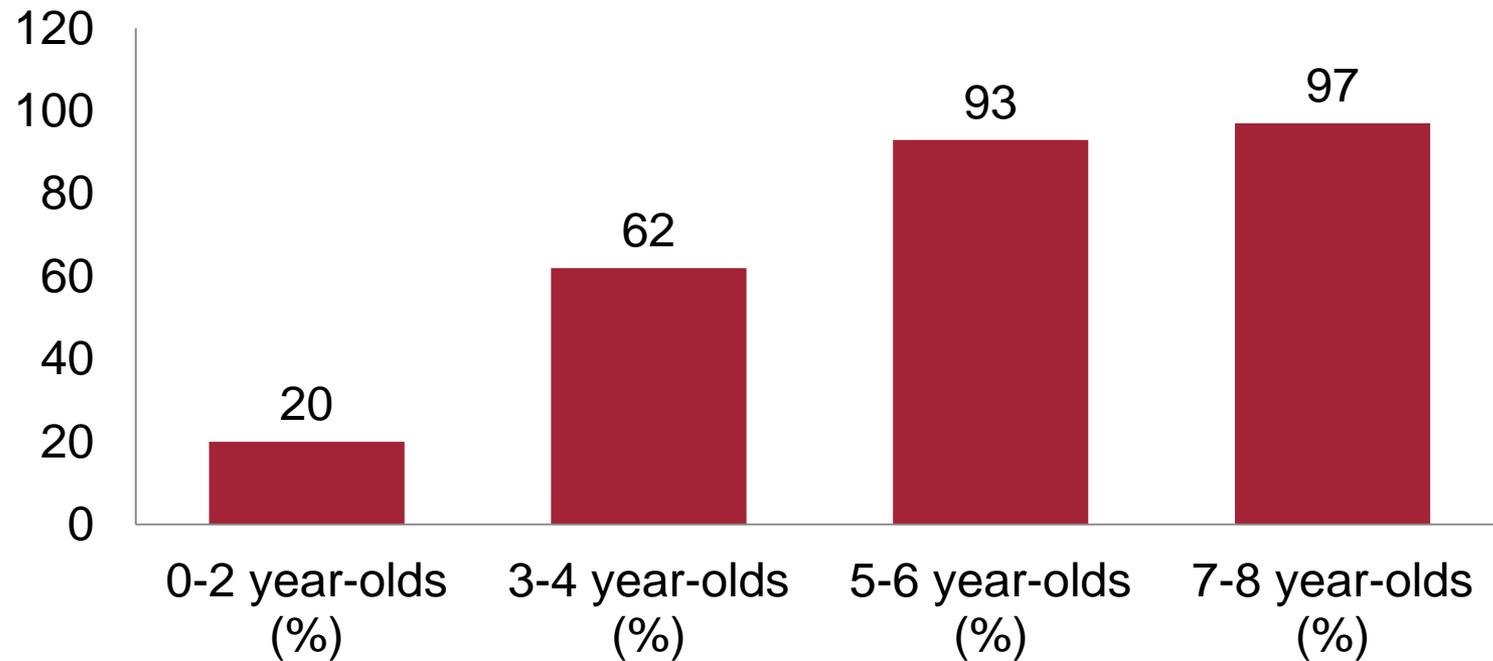
WHY TO USE GAMES OR GAMIFICATION FOR HEALTH PROMOTION?



WHY GAMES?

- 
- Games are fun and playing games is popular
 - Games are played regardless of age, gender and background (*Inchley et al. 2016; Mäyrä et al. 2016*)
 - The game play of young children (0-8 years) is also increasing and playing games is started at a younger age than before
 - 62% of children aged 0 to 8 years played digital games at least occasionally in Finland (*Suoninen 2013*)

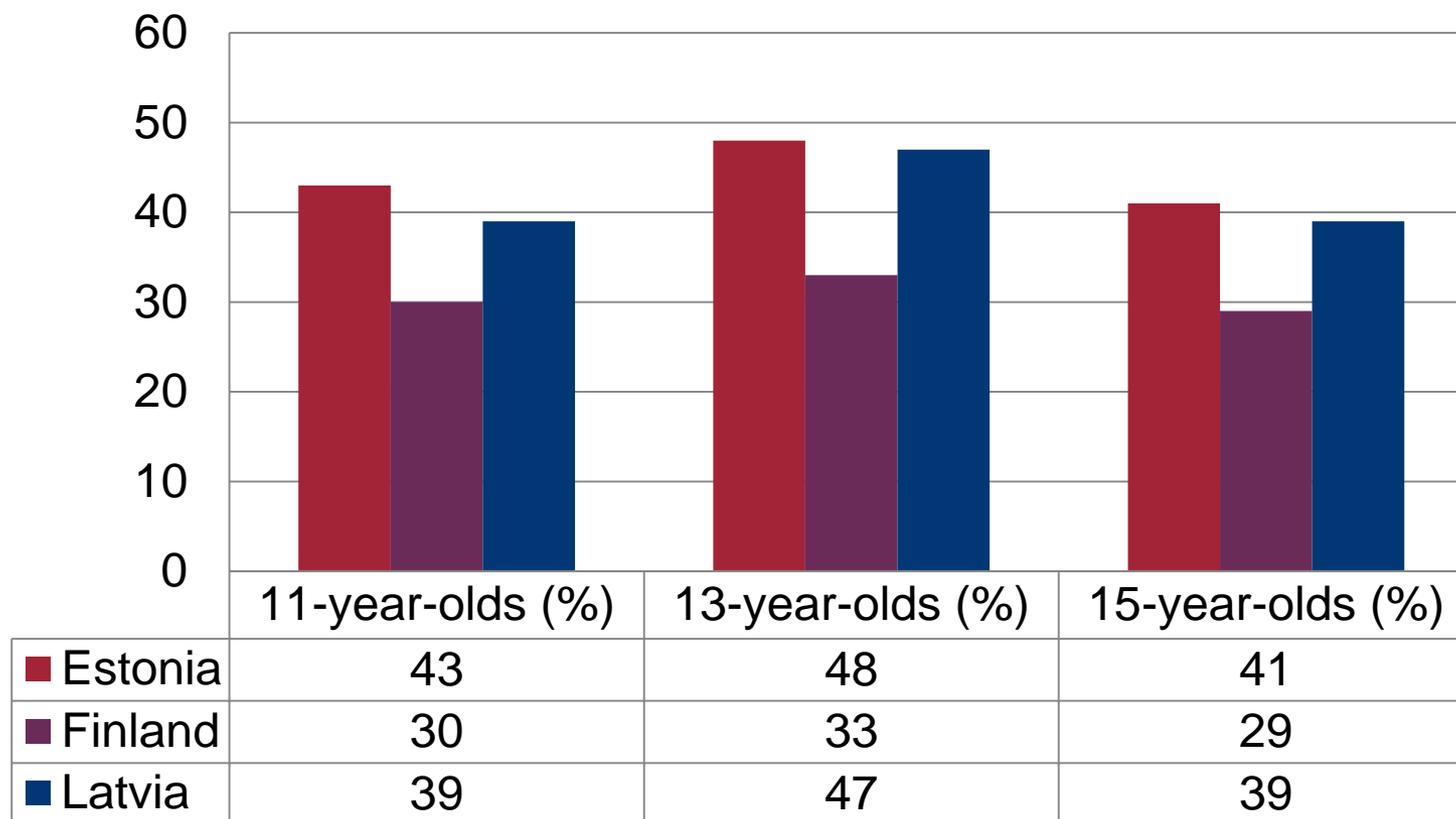
Percentage of children playing digital games at least occasionally in Finland



(Suoninen 2013)



Percentage of adolescents playing games for 2 or more hours on weekdays (2013/2014)



BENEFITS OF GAMES IN HEALTH PROMOTION

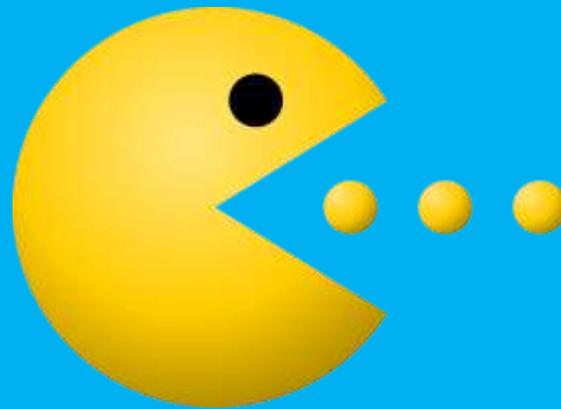
- Use of game elements can engage and motivate users
 - Possibility to reach those that are difficult to reach with traditional health promotion methods
 - Possibility to encourage setting and reaching health-related goals
- Digital games can
 - be used to practice skills that are impossible to practice in real life environments
 - support interactive learning and communication
 - be tailored based on individual needs
 - be used to provide individualized feedback

Examples of positive outcomes achieved with health games:

- Adherence to medication or other treatment
- Change in attitudes
- Health related knowledge
- Change in symptoms
- Medical visits/school absence
- Cognitive skill development
- Improved communication
- Health behavior change
- Understanding negative effects
- Health-related motivation
- Motor skill development
- Improved balance
- Improved hand-eye coordinaton
- Perceived competence in sport
- Reaching psychotherapeutic goals
- Self-efficacy
- Self-esteem
- Self-management/skills/self-care
- Decrease in pain and anxiety

Das et al. 2005; Parisod et al. 2014b; Peng ym. 2011; Barnett ym. 2011; Biddiss & Irwin 2010; Dayle 2009; Papastergiou 2009; Guy ym. 2011; Peng ym. 2012; Leblanc ym. 2013

EXAMPLES OF HEALTH GAMES



ACTIVE VIDEO GAMES

- **In children (3-18 year-olds) active video games appears to**
 - be effective in achieving light to moderate physical activity levels
 - increase energy expenditure, heart rate and oxygen consumption
- **However, active video games cannot be recommended only for meeting daily physical activity recommendations**



ALIEN HEALTH GAME

- **Alien Health** has been used to teach adolescents to learn about nutrition while playing an active video game



(Johnson-Glenberg et al. 2014)

MOBILE HEALTH GAME "FUME"

- **FUME** aims to support tobacco-related health literacy among early adolescents
 - i.e. motivation and ability to achieve, understand and use tobacco-related information
- The game includes five minigames with short tasks given to the player
- The feedback provided illustrates the positive sides of tobacco-free life or negative consequences of tobacco use



- Health games have potential in promoting children's health and they can make health related issues fun for children
- Games offer many possibilities, use imagination!





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Thank you for your interest!

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