1. Introduction

Precise assessment of school readiness is critical.

This school readiness depends on the assessment methods used. Game-based assessments on computer tablets might be an effective means to directly assess school readiness skills in young children.

Evidence Centred Design (ECD) is a suitable framework to guide Game-Based Assessment (GBA) design.

2. Method

2.1. INSTRUMENT AND WORK STAGES

How are computer games, apps or game-like features used as tools to assess school children?

31 studies published between 2011 and 2019

Analysis of the following readiness domains:

1. Cognition and general knowledge;
2. Approaches to learning;
3. Physical well-being and motor development;
4. Social and emotional development; and
5. Language development.

Some quantitative outcomes:

Scopus had the highest number of articles (n = 11).

Europe had the highest representation (n = 10).

In summary, a) There is a predominance of interventions which… assessed the cognitive domains in school settings. b) Few interventions… targeted the enhancement of school readiness. c) The number of studies focussing on the GBA of school readiness domains is increasing, although too much attention is paid to cognitive domains at the expense of non-cognitive ones that have proved very useful in developing twenty-first-century skills.

The ECD framework can guide game designers to improve this assessment.

3. Results

Most empirical studies assessed cognitive domains (n = 25), especially arithmetic (n = 8). Socio-emotional development was measured to a little extent (n = 3).

In summary, a) There is a predominance of interventions which… assessed the cognitive domains in school settings. b) Few interventions… targeted the enhancement of school readiness.

4. Conclusions

The number of studies focussing on the GBA of school readiness domains is increasing, although too much attention is paid to cognitive domains at the expense of non-cognitive ones that have proved very useful in developing twenty-first-century skills.

The ECD framework can guide game designers to improve this assessment.