Active Video Games: The Battle for Attention

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Objective: Inactivity is a substantial global burden, economically and physiologically (Ding et al., 2016). Video games are a prominent contributor to inactivity. Active video games (AVGs) can alleviate video game related inactivity. However, AVGs perform consistently poorly on the commercial market, in terms of total volume and market share. Thus, the purpose of this study was to explore how AVGs compare to non-active video games (NAVGs), based on gameplay experience. Methods: 32 participants (25 male, 7 female), completed a novel review-based survey that compared five AVGs to NAVGs, across 10 design constructs. Data analysis included paired-samples T-tests. 5 participants, all male, a sub-sample of the 32 participants also completed a semi-structured interview. The interview was conducted to build on the quantitative comparisons. Thematic analysis was conducted to identify themes. Results: Findings from the review survey and semi-structured interviews indicated that participants perceived AVGs unfavourably to NAVGs. Mean scores for the five AVGs were low (3.97 out of 10), compared to NAVGs (the players personal 10 out of 10). Participants perceptions indicated that AVGs deliver lower quality world design ($P < 0.01$), characters ($P < 0.05$) and stories ($P < 0.01$), compared to the genre mean (3.97). These three design constructs were judged as essential components of video games via qualitative exploration. Qualitative exploration also highlighted several important issues; gamer motivation, the lack of quality and variety in AVGs, the stereotype in AVGs, and the practical limitations of the associated hardware. The findings support the Gamer Motivation Model. A mixed-reality platform idea, proposed as an innovative solution to these issues, was received positively by all five interviewees. Conclusions: This study has provided novel insights into understanding why, given that AVGs work practically, they are not working commercially. These findings have implications for game developers including, but not limited to, applying the Gamer Motivation Model and improving the world design quality. AVGs that address limitations of current products have the potential to contribute to reduced sedentary behaviour, and thus, prevention of associated ill-health. An innovative mixed-reality platform solution was received positively by participants and should be the focus of future research.