Critical Review: Improving the Efficacy of Games for Change Using Personalization Models

This essay forms a critical review of Orji et al. [2017].

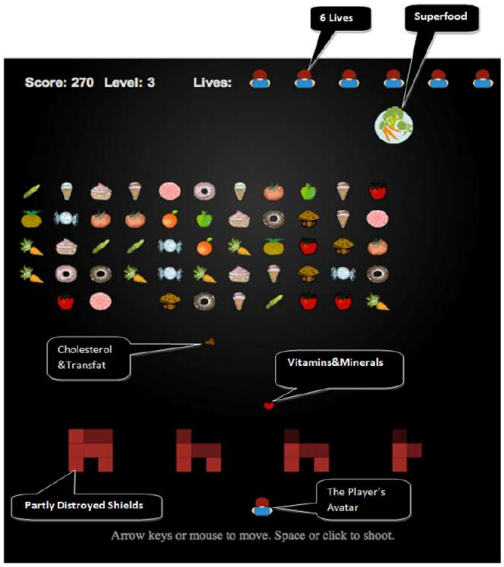

Figure 1: "Junk Food Aliens" (JFA): A persuasive game designed to change gamer behaviour towards healthy eating.

Table 1: β values: Strength of motivation of different players that result from different strategies.

Strategies / Gamer type	CMPT/ CMPR	COOP	CUST	PERS	PRAS	SEMT/ SUGG	SIML	REWD
Achiever	-	.15	-	-	-	.10	-	.10
Conqueror	.25	-	-	.12	-	.12	.14	-
Daredevil	-.10	-	-	-	-	-.14	.11	-
Mastermind	.12	-	.10	.12	-	.14	.12	-
Seeker	.10	-	.19	.11	.10	-	-	-
Socializer	.11	.17	-.12	-	-.12	-.13	-	-
Survivor	.17	-.20	-.13	-	-	.27	-	-.14

CMPT/CMPR = competition and comparison, COOP = cooperation, CUST = customization, PERS = personalization, PRAS = praise, SEMT/SUGG = self-monitoring and suggestion, SIML = simulation, REWD = reward.

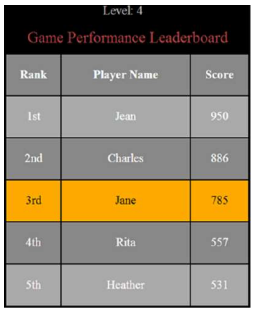

Figure 2: Competition-based version of JFA.

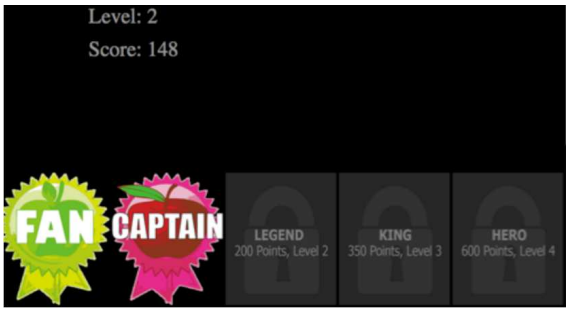

Figure 3: Reward-based version of JFA.

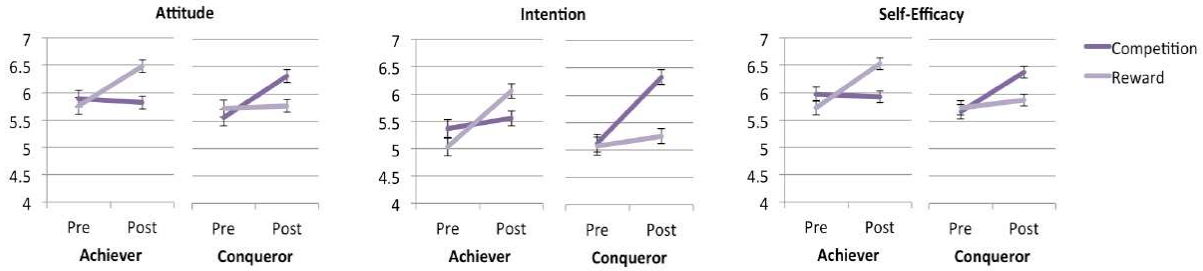

Figure 4: Mean values ± SE for Attitude, Intention, and Self-Efficacy by Gamer type (Achiever, Conqueror) and Game version (Competition, Reward).

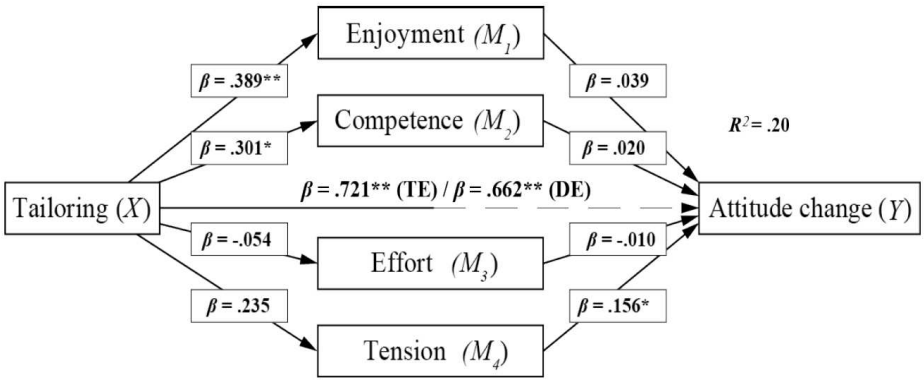

Figure 5: Parallel mediation model of tailoring on attitude change with play experience as mediator.

Word count: 0 words

References

Rita Orji, Regan L. Mandryk, and Julita Vassileva. Improving the efficacy of games for change using personalization models. *ACM Trans. Comput.-Hum. Interact.*, 24(5):32:1–32:22, October 2017. ISSN 1073-0516. doi: 10.1145/3119929. URL `http://doi.acm.org/10.1145/3119929`.

Critical Review: Exploring Interactions with Physically Dynamic Bar Charts

This essay forms a critical review of Taher et al. [2015].

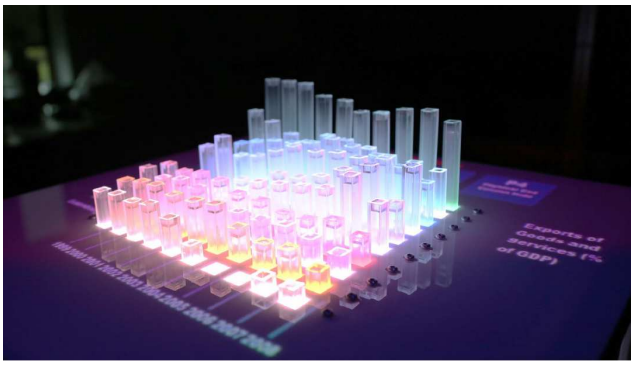

Figure 1: EMERGE: Exploring Interactions with Physically Dynamic Bar Charts using actuating physical rods and RGB LEDs to display international export data.

Table 1: Task-sets and interaction techniques explored during the user study.

Task	**Overview**	**Interaction Techniques**
Annotation ***(Process & provenance)***	Selecting and marking individual data points.	Point, pull, press.
Filtering ***(Data view & specification)***	Hiding and refining data for enhanced perception and comparison.	Swipe away, manual press, assisted press, press shortcut, and press to compare.
Organization ***(View manipulation)***	Data arrangement by moving rows and columns.	Drag and drop with immediate transition and hide-all with transition, press with instant transition and hide-all with transition.
Navigation ***(View manipulation)***	Controlling the view of large data sets.	Scroll, directional arrows, directional press, and paging.

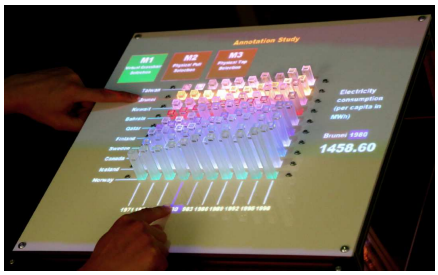

Figure 2: Annotation (Point technique).

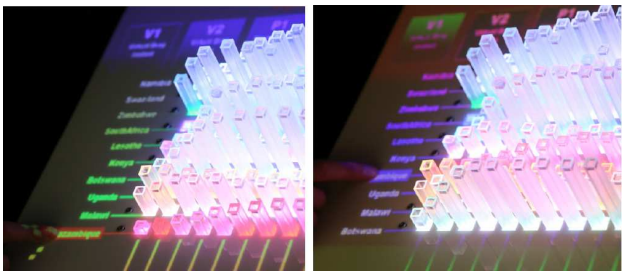

Figure 3: Organisation (Drag and Drop technique).

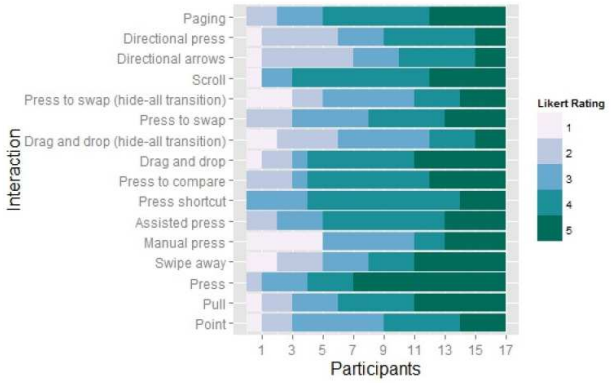

Figure 4: Likert scale ratings for helpfulness of interaction techniques. Range = 1: Strongly Disagree, 5: Strongly Agree.

Word count: 0 words

References

Faisal Taher, John Hardy, Abhijit Karnik, Christian Weichel, Yvonne Jansen, Kasper Hornbæk, and Jason Alexander. Exploring interactions with physically dynamic bar charts. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, CHI '15, pages 3237–3246, New York, NY, USA, 2015. ACM. ISBN 978-1-4503-3145-6. doi: 10.1145/2702123.2702604. URL `http://doi.acm.org/10.1145/2702123.2702604`.