

Mark D. Griffiths & Michael Auer

To cite this article: Mark D. Griffiths & Michael Auer (2022): Limit-setting in gambling: Some further thoughts and observations on Delfabbro and King (2021), International Gambling Studies, DOI: 10.1080/14459795.2021.2009003

To link to this article: https://doi.org/10.1080/14459795.2021.2009003

## Abstract

A recent review by Delfabbro and King (2021) published in *International Gambling Studies* examined the efficacy of voluntary versus mandatory limit-setting in gambling. The review examined 25 empirical studies (18 on voluntary limit-setting and seven on mandatory limit-setting). In this short commentary, we outline a few other thoughts and observations as a supplement to their review. Of the 25 studies reviewed, only ten were published in peer-reviewed journals and given the high reliance on studies in the grey literature, there were other studies that could have been included. There were also other studies not meeting Delfabbro and King's inclusion criterion that could have provided some further useful data.

**Keywords:** gambling; problem gambling; limit-setting; responsible gambling; player protection; harm minimization

## Limit-setting in gambling: Some further thoughts and observations on Delfabbro and King (2021)

Delfabbro and King (2021) recently published an excellent review paper examining the efficacy of voluntary versus mandatory limit-setting in gambling. The review examined 25 empirical studies (18 on voluntary limit-setting and seven on mandatory limit-setting). Here, we outline a few other thoughts and observations as a supplement to their review.

First, in Table 1, seven empirical studies examining mandatory limit-setting gambling in gambling are listed (including four that we co-authored). Delfabbro and King reported that all of these studies including our own were all carried out in Norway. However, our first published study on limit-setting (i.e., Auer & Griffiths, 2013) was actually carried out using behavioural tracking data supplied by an Austrian gambling operator (i.e., *win2day*).

Second, of the 25 studies reviewed by Delfabbro and King, 15 of the studies comprised studies published in the 'grey' literature or were conference papers (i.e., Bernhard, Lucas & Jang, 2006; Delfabbro, 2011; Delfabbro & Stevenson, 2013; Engebo, 2012; Focal Research, 2007, 2010; Hoffman, 2014, 2016; NatCen, 2015; Omnifacts Bristol Research, 2005, 2007; Schottler Consulting, 2009a, 2009b, 2010; South Australian Centre for Economic Studies, 2019) and only ten of the studies were published in peer-reviewed journals (i.e., Auer & Griffiths, 2013, 2019; Auer, Hopfgartner & Griffiths, 2018, 2019, 2020; Auer, Reiestad & Griffiths, 2020; Broda, LaPlante, Nelson et al., 2008; Griffiths, Wood & Parke, 2009; Ivanova, Magnusson & Carlbring, 2019; Nelson, LaPlante, Peller et al., 2008). There is no doubt that some of the data in the non-peer-reviewed reports are of high existential value and were useful to include but readers could perhaps have been made aware of which studies had undergone or had not undergone academic peer-review given the fact that many of the reports in the grey literature will not necessarily have undergone rigorous peer review prior to publication.

Third, although Delfabbro and King systematically searched the literature, there are some studies in the grey literature that were omitted which appear to have met the criteria for inclusion. However, given that the majority of studies included in their review were from the grey literature (15 out of 25 studies) there is no reason why some of these could not have been included. For instance, Griffiths (2014) conducted a preliminary evaluation of the responsible gambling initiatives implemented by the *Association of British Bookmakers* (ABB) with

specific emphasis on time and money spending limits. The data covered a 15-week period commencing March 1st, 2014 (when the new ABB Code of Conduct came into force nationally across all betting shops). Most of the data concerned gambling behaviour on fixed odds betting terminals (FOBTs). At a national level, the number of voluntary money limits set peaked in the first week that the ABB Code came into force (n=10,721) and declined every week with the lowest number in Week 15 (n=1,557). The same pattern was also observed for those that set voluntary time limits with the peak being the first week (n=5,652) and declining to the lowest number in Week 15 (n=832). At a national level, the percentage of sessions in which players set a voluntary spend limit was 0.27% in the first week and then declined every week to 0.04% in Week 15. These data clearly show that the publicity surrounding the introduction of limit-setting tools had some immediate effect with almost 11,000 instances of within-session limit setting in the first week. However, the take-up of voluntary responsible tools was extremely low. Moreover, while the data are robust and objective, the study only examined limit-setting over relatively short period of time and there was no longer-term follow-up.

In another study, the Global Online Gambler Survey (International Gaming Research Unit, 2007) collected data from 10,865 participants from 96 countries who reported that they had gambled at online casino sites, online poker sites, or both. The survey included information on gambling behaviour and attitudes, player protection, responsible gambling. Voluntary monetary spending limits were viewed by the majority as at least 'quite useful' (70%) with the least popular feature being voluntary time spending limits (51% reporting this as at least quite useful). Most participants were very opposed to mandatory spending limits, which were regarded as patronizing and overly restrictive. While the sample size for a survey of this nature was large, all the data were self-report and are subject to well established methods biases, and the participants were not necessarily representative of online gamblers at the time. Moreover, some data from some countries included very low numbers of participants.

Fourth, the key inclusion criterion was only to include studies that contained "the findings of trials of this technology in land-based or online environments (i.e. which contained data on what worked in practice)" which meant that potentially useful findings from laboratory-based studies on limit-setting were excluded from the review (e.g., Kim et al., 2014; Stewart and Wohl, 2013; Wohl et al., 2013) as well as one study examining the use of 'win limits' (Walker et al., 2015). The strict inclusion criterion also meant that auditing studies examining the extent to which limit-setting tools are being used by the gambling industry were also excluded (e.g.,

Bonello & Griffiths, 2017; Calvosa, 2017; Kazhaal et al., 2011; Marionneau et al., 2017; Smeaton & Griffiths, 2004). All of these studies would arguably have added important contextual information to the review although we acknowledge there are many limitations in the published experimental data including issues of sample validity, ecological validity, lack of a longitudinal perspective, and not using real money to gamble in these studies.

As with any review, there is a cut-off date and since the publication of Delfabbro and King's review, two large-scale studies have been published (both in the grey literature). The Behavioural Insights Team (2021a) carried out a study on drop-down menus that gamblers use to select their deposit limits. It was hypothesised that the high amounts of money commonly found in these menus lead players to select higher deposit limit amounts which would lead to spending more money gambling (known as the 'anchoring' effect). The study invited 45,000 Bet365 customers to set deposit limits. Of these, 4% responded and set limits. Those who voluntarily set limits were then randomly allocated into one of three groups: a control group (with the standard drop-down menu of limit-setting monetary amounts), a low anchor group (with a drop-down menu with lower limit-setting monetary amounts), and a no anchor group (with a free text box that the player could set their own deposit limit). The two primary outcome measures used to compare the three groups were the deposit limit that participants set, and the amount of money deposited in their account in the next 30 days (in the form of a daily deposit limit used as a proxy indicator for financial harm). The results showed that compared to the control group, the daily deposit limits were 45% lower in the low anchor group, and 46% lower in the no anchor group. In relation to the amount of money deposited, the control group deposited an average of £446 in 30 days, compared to £426 in the low anchor group (4.4% lower) and £361 in the no anchor group (18% lower). However, these reductions were not statistically significant (most likely due to the small number of players who actually set deposit limits). Moreover, it should be noted that this study has no similar comparators in the field because no previous limit-setting study has ever examined drop-down menu architecture.

In a second study, the Behavioural Insights Team (2021b) carried out a study to try and encourage gamblers to set deposit limits using 'commitment devices' with 23,592 customers from the gaming operator *Bet365*. The gamblers were randomly allocated into three groups: a control group who received a drop-down list of selected limits (n=7876), a self-persuasion group who received a drop-down list of selected limits but were also asked via an onscreen message to think about advice they would give to another player in setting a limit (n=7855),

and a personal commitment group who received a drop-down list of selected limits and an onscreen message to think about a reason for setting a limit (n=7861). Those in the two treatment conditions were sent SMS reminders 3, 10, and 21 days after the limit was set. The two primary outcome measures used to compare the groups were the amounts of money deposited by players in each of the three groups after setting a limit, and the proportion of players opting to set a limit in each group. The study found there were no significant differences between the three groups in terms of encouraging limit-setting. The findings indicated that significantly fewer customers opted to set deposit limits after being encouraged by one of the onscreen messages. In the control group. 4.4% set deposit limits compared to 3.6% of the 'selfpersuasion' group and 2.9% of the 'personal commitment' group. Again, there are no previous studies to directly compare these findings but it does not contradict any of the conclusions made by Delfabbro and King. Both of the studies by the Behavioural Insights Team had large sample sizes but the data only came from gamblers with one gambling operator (i.e., *Bet365*) and some of the accounts may be used by more than one individual.

None of the additional studies cited in this short commentary here would change any of the conclusions made by Delfabbro and King (2021). However, we think our additions supplement Delfabbro and King's review.

## References

Auer, M., & Griffiths, M. D. (2013). Voluntary limit setting and player choice in most intense online gamblers: An empirical study of gambling behaviour. *Journal of Gambling Studies*, 29(4), 647–660. https://doi.org/10.1007/s10899-012-9332-y

Auer, M., & Griffiths, M. D. (2019). Predicting limit-setting behavior of gamblers using machine learning algorithms: A real-world study of Norwegian gamblers using account data. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-019-00166

Auer, M., Hopfgartner, N., & Griffiths, M. D. (2018). The effect of loss-limit reminders on gambling behavior: A real-world study of Norwegian gamblers. *Journal of Behavioral Addictions*, 7(4), 1056–1067. https://doi.org/10.1556/2006.7.2018.106

Auer, M., Hopfgartner, N., & Griffiths, M. D. (2019). An empirical study of the effect of voluntary limit-setting on gamblers' loyalty using behavioural tracking data. *International Journal of Mental Health and Addiction*, *17*, 1–12. https://doi.org/10.1089/cyber.2019.0202

Auer, M., Hopfgartner, N., & Griffiths, M. D. (2020). The effects of voluntary deposit limitsetting on long-term online gambling expenditure. *Cyberpsychology, Behavior, and Social Networking*, *23*(2), 113–118. https://doi.org/10.1089/cyber.2019.0202

Auer, M., Reiestad, S. H., & Griffiths, M. D. (2020). Global limit setting as a responsible gambling tool: What do players think? *International Journal of Mental Health and Addiction*, *18*(1), 14–26. https://doi.org/10.1007/s11469-018-9892-x

Behavioural Insights Team (2021a). *Applying behavioural insights to design better safer gambling tools. Part 1: Anchoring: Commitment devices.* London: GambleAware

Behavioural Insights Team (2021b). Applying behavioural insights to design better safer gambling tools. Part 2: Commitment devices. London: GambleAware

Bernhard, B., Lucas, A., & Jang, D. (2006). *Responsible gaming device research report*. University of Nevada.

Bonello, M., & Griffiths, M. D. (2017). Analyzing consumer protection for gamblers across different online gambling operators: A descriptive study. *Gaming Law Review and Economics*, *21*(3), 278–285. https://doi.org/10.1089/glre.2017.2134

Broda, A., LaPlante, D. A., Nelson, S. E., LaBrie, R. A., Bosworth, L. B., & Shaffer, H. J. (2008). Virtual harm reduction efforts for internet gambling: Effects of deposit limits on actual internet sports betting behaviour. *Harm Reduction Journal*, *5*(1), 27. https://doi.org/10.1186/1477-7517- 5-27

Calvosa, P. (2017). Responsible gambling strategies for internet gambling: An empirical investigation into the Italian gambling market. *International Journal of Business Management*, 12(7), 17-34.

Delfabbro, P. H. (2011). *An evaluation of the Maxetag budget-setting feature. Final report.* Department for Treasury and Finance.

Delfabbro, P. H., & King, D. L. (2021). The value of voluntary vs. mandatory responsible gambling limit-setting systems: A review of the evidence. *International Gambling Studies*, 21(2), 255-271.

Delfabbro, P. H., & Stevenson, J. (2013). *Ongoing evaluation of the playsmart voluntary precommitment system*. Department of Treasury and Finance.

Engebo, J. (2012). *IVTs and tools for responsible gambling: Multix and Belago*. Paper presented at the 9th European Conference on Gambling Studies and Policy Issues. Loutraki, Greece.

Focal Research. (2007). Assessment of the behavioural impact of responsible gambling device (RGD) features: Analysis of Nova Scotia player-card data. Windsor trial VLT player tracking system— Nova Scotia gaming corporation responsible gaming research device project: Final report. Nova Scotia Gaming Corporation.

Focal Research. (2010). Evaluating the impact of the "My-Play" system in Nova Scotia: Phase 1. Regular VLT player benchmark survey: Technical report. Nova Scotia Gaming Foundation.

Griffiths, M. D. (2014). *Responsible gambling initiatives and preliminary evaluation of the ABB Code of Conduct*. London: Association of British Bookmakers.

Griffiths, M., Wood, R. T. A., & Parke, J. (2009). Social responsibility tools in online gambling: A survey of attitudes and behaviour among internet gamblers. *Cyberpsychology and Behavior*, *12* (4), 413–421. https://doi.org/10.1089/cpb.2009.0062

Hoffman, B. H. (2014). *Norsk tippings responsible gambling platform* [Paper presented]. At the 10th European Conference on Gambling Studies and Policy Issues. Helsinki, Finland.

Hoffman, B. H. (2016). Mandatory pre-commitment loss limits. Norsk Tipping.

International Gaming Research Unit (2007). The global online gambling report: An exploratory investigation into the attitudes and behaviours of Internet casino and poker players. Final report prepared for eCOGRA (e-Commerce and Online Gaming Regulation and Assurance).

Ivanova, E., Magnusson, K., & Carlbring, P. (2019). Deposit limit prompt in online gambling for reducing gambling intensity: A randomised controlled trial. *Frontiers in Psychology*, *10*, 639.

Kazhaal Y., Chatton, A., Bouvard, A., Khiari, H., Achab, A., & Zullino, D. (2011). Internet poker websites and pathological gambling prevention policy. *Journal of Gambling Studies, 29*, 51-59.

Kim, H. S., Wohl, M. J., Stewart, M. K., Sztainert, T., & Gainsbury, S. M. (2014). Limit your time, gamble responsibly: Setting a time limit (via pop-up message) on an electronic gaming machine reduces time on device. *International Gambling Studies*, *14*, 266–278.

Marrionneau, V., Järvinen-Tassopolous, J. (2017). Consumer protection in licensed online gambling markets in France: the role of responsible gambling tools. *Addiction Research and Theory, 6,* 436-443.

NatCen (2015). *ABB code for responsible gambling and player protection: Evaluation of early impact among machine gamblers*. Responsible Gambling Trust.

Nelson, S. E., LaPlante, D. A., Peller, A. J., Schumann, A., LaBrie, R. A., & Shaffer, H. J. (2008). Real limits in the virtual world: Self-limiting behaviour of internet gamblers. *Journal of Gambling Studies*, *24*(4), 463–477. https://doi.org/10.1007/s10899-008-9106-8

Omnifacts Bristol Research (2005). *Nova Scotia player card research project: Stage I research report*. Nova Scotia Gaming Corporation.

Omnifacts Bristol Research (2007). Nova Scotia player card research project: Stage III research report. Nova Scotia Gaming Corporation.

Schottler Consulting (2009a). *Major findings of a trial of a card-based gaming product at the Sandgate RSL: Card-based trial evaluation, March to September 2008.* 

Schottler Consulting (2009b). *Major findings of a trial of a card-based gaming product a the redcliffe RSL*.

Schottler Consulting. (2010). *Major findings and implications: Player tracking and precommitment trial. A program and outcome evaluation of the PlaySmart precommitment system.* S.A. Treasury.

Smeaton, M. & Griffiths, M.D. (2004). Internet gambling and social responsibility: An exploratory study. *CyberPsychology and Behavior*, *7*, 49- 57.

South Australian Centre for Economic Studies (SACES). (2019). *Evaluation of yourplay: Final report*. Department of Justice and Community Safety.

Stewart, M. J., & Wohl, M. J. A. (2013). Pop-up messages, dissociation, and craving: How monetary limit reminders facilitate adherence in a session of slot machine gambling. *Psychology of Addictive Behaviors*, 27, 268–273.

Walker, D. M., Litvin, S. W., Sobel, R. S., & St-Pierre, R. A. (2015). Setting win limits: An alternative approach to "responsible gambling"? *Journal of Gambling Studies*, *31(3)*, 965-986.

Wohl, M. J., Gainsbury, S., Stewart, M. J., & Sztainert, T. (2013). Facilitating responsible gambling: The relative effectiveness of education-based animation and monetary limit setting pop-up messages among electronic gaming machine players. *Journal of Gambling Studies, 29*, 703–717.