

How do activity statements impact gambling behaviour?

Results deck

November 2023



Executive Summary

Activity statements are a form of feedback to consumers on their gambling activity, summarising key statistics, such as the amount spent, won, or lost, over a specific period.

BIT ran an online lab experiment with 5,463 UK adults who gamble, **testing how 4 different versions of activity statements impact online gambling behaviour.**

Participants were randomised into five conditions:

- **Control 1: No stimulus.** No activity statement shown
- **Control 2: Baseline.** An amended version of an activity statement that was introduced in Australia
- **Treatment 1: Industry.** An activity statement aligning with the format a UK operator already uses
- **Treatment 2: Prediction correction.** Before showing an activity statement, individuals are asked to recall what they think they bet
- **Treatment 3: Call to action.** The activity statement includes a call to action inviting users to set up a deposit limit

Findings:

1. **Seeing any activity statement resulted in lower amounts bet, lower average stakes and improved recall of the amount bet.**
2. **The baseline and call to action statements decreased the total amount bet and average stake size the most, compared to receiving no statement.**
3. **Activity statements had no impact on the time spent playing or the number of spins.**
4. **9 in 10 participants felt that activity statements should be implemented.**

Activity statements allow people to learn more about their gambling behaviour and ultimately make more informed decisions. **Given these results, we feel activity statements are a promising intervention to reduce gambling harm.**



Implications and recommendations

Implications

Activity statements can **help individuals manage their online gambling behaviour**, through allowing them to make more informed decisions.

Individuals want to see activity statements in real life: most participants thought they were easy to understand and that they should be implemented.

The baseline and call to action activity statements emerged as the most promising versions. **Further testing is needed** on each of these designs on an operator website and potentially on which refined designs may have an impact on time spent on gambling and number of spins.

This experiment was not set up to test how activity statements affect different levels of gambling (per the [Problem Gambling Severity Index, PGSI](#)). More testing is therefore needed to assess impact on groups of interest and rule out backfire effects, for example linked to people with high levels of gambling experiencing distress when seeing their gambling spent or engaging in loss chasing.

This experiment did not investigate which **method of delivery** would be most effective for activity statements.

Recommendations



Roll out activity statements across online operators, incorporating this within upcoming White Paper consultations.



Trial the baseline activity statement and activity statement with call to action (to use gambling management tools) with gambling operators, with a specific focus on impacts to different PGSI groups.



Research and trial the delivery of the activity statement with gambling operators (email, app, website, in-play updates etc.)

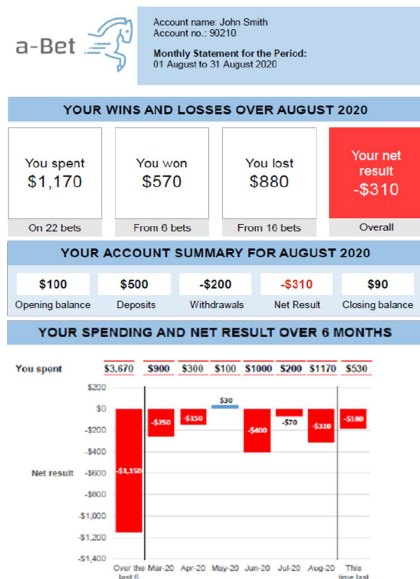
Section 1: Background

The study's context and aims.





Activity statements can potentially be effective in reducing gambling harms, but their effects are underexplored in the UK.



Activity statement taken from the Behavioural Economics Team of the Australian Government (BETA).¹

This study aims to measure the impact of different designs of activity statements on gambling behaviour.

Activity statements are a form of feedback to consumers on their gambling activity. They provide a summary of key statistics, such as how much money people have spent, won, or lost, over the past month. Operators in Australia are mandated to send their customers a monthly email containing an activity statement. However, no UK gambling operator currently offers them (although bet365 and SkyBet have similar offerings as an in-platform feature).

Research shows that individuals often inaccurately estimate their gambling wins and losses², which can result in people gambling more money than they intended too. Research shows that providing feedback on playing behaviour can result in reduced wagering and losses. **Evidence of the impacts of activity statements and their specific features on gambling behaviour, however, is limited.**

The recently published UK government White Paper³ referenced activity statements as an area of interest, specifically focusing on exploring their potential benefits in a Great Britain setting.

What we did: This online lab experiment tested the impact of activity statements on participants' gambling behaviour, as well as their appetite for an introduction of and sentiment towards activity statements.

¹ Behavioural Economics Team of the Australian Government. (2020). *Enhancing informed decision-making for online wagering consumers*.

² Wohl, M. J., Davis, C. G., & Hollingshead, S. J. (2017). How much have you won or lost? Personalized behavioral feedback about gambling expenditures regulates play. *Computers in Human Behavior*, 70, 437-445.

³ DCMS (2023). *High stakes: gambling reform for the digital age*



Our research questions focused on the impact of activity statements on gambling behaviour, and design features to improve their effectiveness.

Research question	The hypotheses we tested ¹
1. Does seeing an activity statement reduce gambling behaviour - specifically money spent?	H1a: Participants exposed to an activity statement will bet less money relative to the no activity statement control group. H1b: The impact will differ depending on the design of the statements, with the call to action version, asking people to sign up to a safer gambling tool, being the most effective.
2. Does seeing an activity statement increase awareness of the amount bet?	H2: Those that have received an activity statement will be better able to recall the total amount they bet, the number of spins they played, and the time they played for, with the participants in the prediction correction group having the best recall.
3. How do people feel about activity statements?	– <i>We did not have a specific hypothesis on how people would feel towards the statements.</i>
4. Do the benefits of an activity statement diminish at higher Problem Gambling Severity Index (PGSI) ² levels?	H3: Higher PGSI scores will be associated with smaller reductions in the amount bet relative to the reduction for lower PGSI scores. ³

¹ Our hypotheses were informed by our scoping work. Details can be found in [Appendix 1](#). Our full theory of change can be found in [Appendix 2](#).

² PGSI is an index consisting of nine items, resulting in score of between 0 and 27. A score of 8 or more represents someone experiencing high levels of gambling harm. We use the short-form PGSI definition and measurement developed by the [Gambling Commission](#).

³ This hypothesis was informed by scoping work interviews with experts, general population people who gamble and those with lived experience of gambling harm

Section 2: Methodology

The study's research design and analytical strategy.



THE
BEHAVIOURAL
INSIGHTS
TEAM



THE
GAMBLING
POLICY &
RESEARCH
UNIT

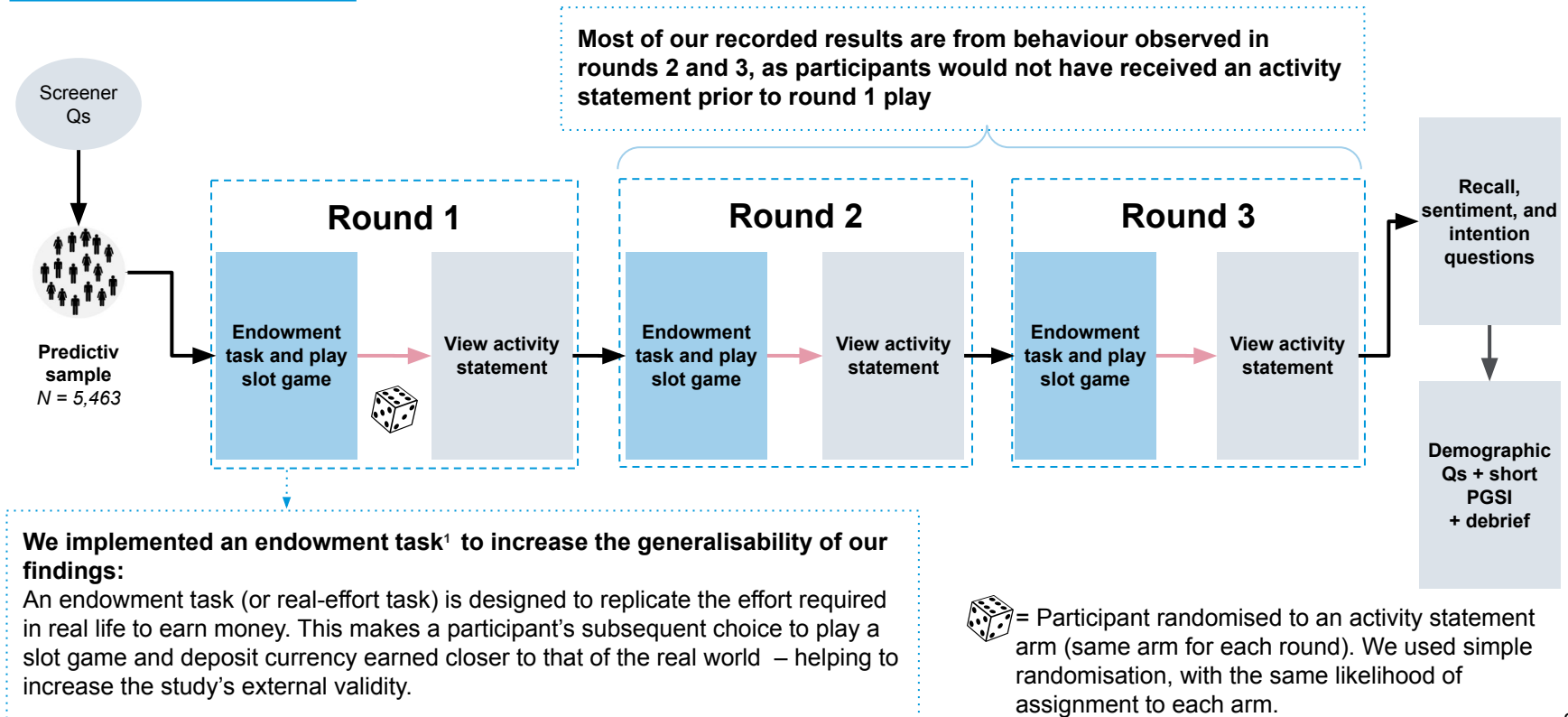


Methodology

Activity statement designs



Participants played an online slot game three times and were shown a new activity statement each time followed by questions on recall and their behavioural intention.

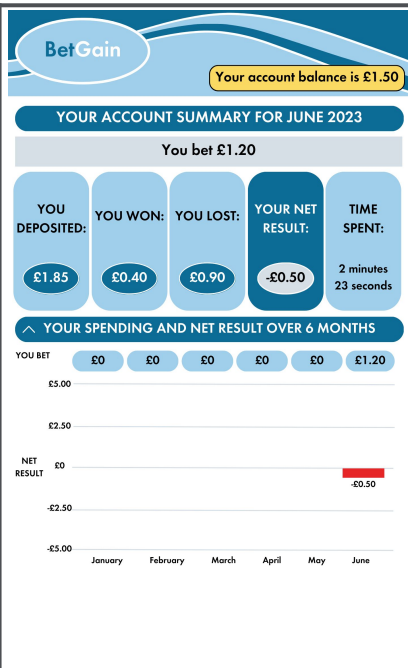


¹Newall, P. W., Byrne, C. A., Russell, A. M., & Rockloff, M. J. (2022). House-edge information and a volatility warning lead to reduced gambling expenditure: Potential improvements to return-to-player percentages. *Addictive Behaviors*, 130, 107308.



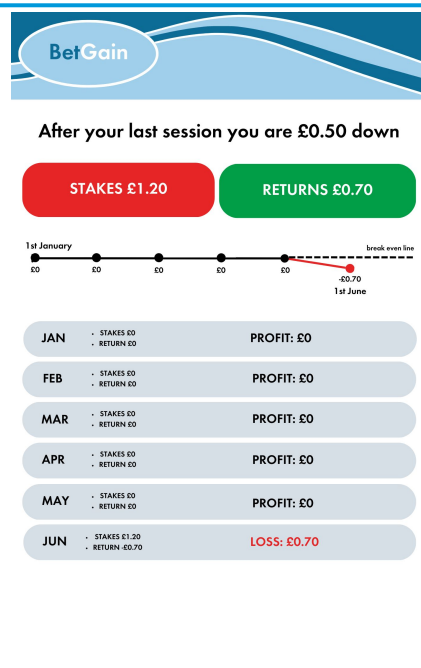
Participants were randomised into five conditions; four included activity statements whilst the control condition saw no statement.

No activity statement shown

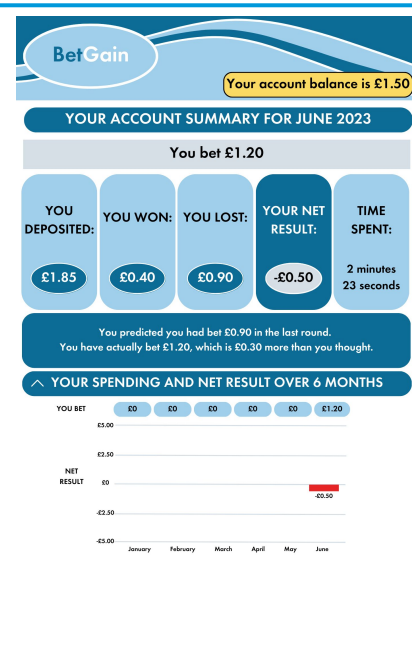


Control 1: No stimulus (n = 1080)

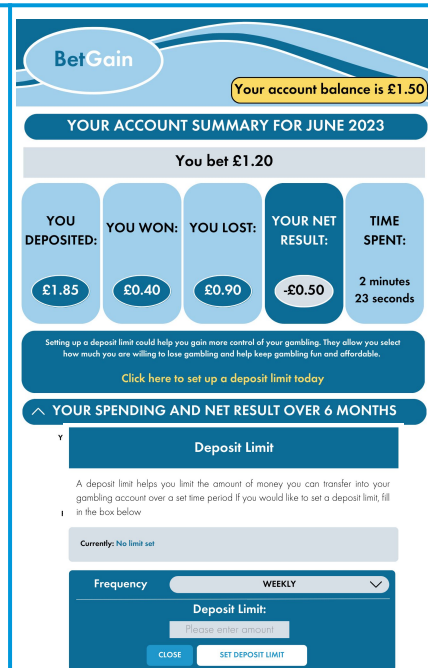
Control 2: Baseline (n = 1099)
An adapted version of an activity statement introduced in Australia.



Treatment 1: Industry (n = 1076)
Based on a feedback tool offered by an existing GB operator within their gambling account.



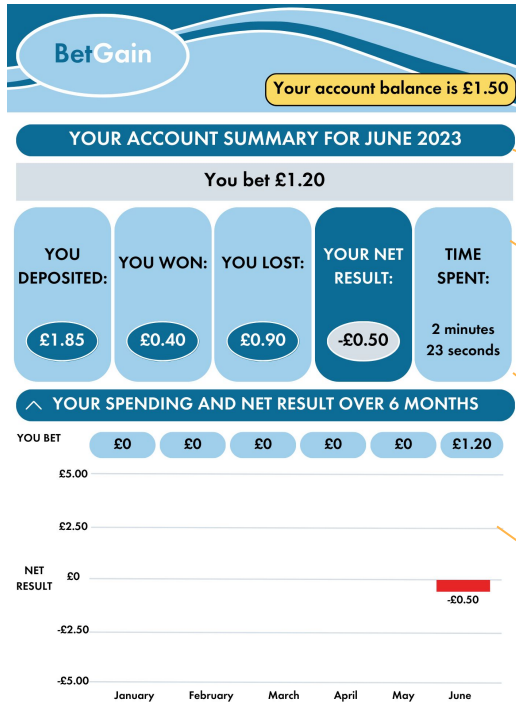
Treatment 2: Prediction correction (n = 1112)
Asks participants what they think they bet before seeing the statement.



Treatment 3: Call to action (n = 1092)
Includes an additional call to action to set up a deposit limit.



Control 2: Baseline - This activity statement forms a baseline for comparisons with both the control arm (no activity statement shown) as well as with other statements.



We used the Behavioural Economics Team of the Australian Government's (BETA)¹ design as our starting point, as to the best of our knowledge it is the only evidence-based activity statement, and made some design updates based on our scoping work to ensure relevance to a GB audience

Interview feedback suggested **including current account balance** as it was useful to have as a reference point in relation to spend

Reduced the number of reported statistics (in comparison to the BETA design) and moved them to one line, to help simplify the overall statement

Included **time spent gambling** as a metric following feedback from interviewees suggesting it was something they would be interested in seeing

Incorporated a **collapsible design** so individuals can easily digest the information but a more detailed breakdown is available if they are interested

¹ Behavioural Economics Team of the Australian Government (2018). *Better Choices: Enhancing informed decision-making for online wagering consumers*. Available at: https://behaviouraleconomics.pmc.gov.au/sites/default/files/projects/better-choices-online-wagering-report_0.pdf



Treatment 1: Industry - This activity statement is based on a profit and loss tool currently offered by an existing gambling operator.



The 'industry' arm was chosen as it reflects the tool most similar to an activity statement which is currently available to GB customers via SkyBet. We were interested in comparing the impact of this design relative to our own.

After your last session you are £0.50 down



Net result framed as a summary statement, highlighting losses experienced during a session

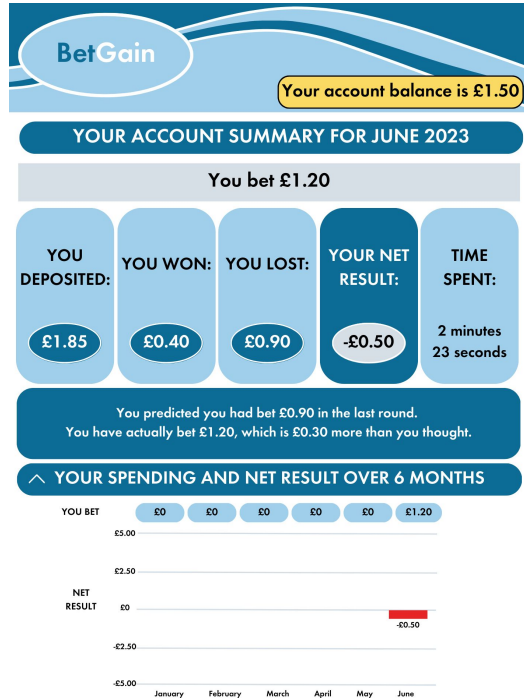
JAN	• STAKES £0 • RETURN £0	PROFIT: £0
FEB	• STAKES £0 • RETURN £0	PROFIT: £0
MAR	• STAKES £0 • RETURN £0	PROFIT: £0
APR	• STAKES £0 • RETURN £0	PROFIT: £0
MAY	• STAKES £0 • RETURN £0	PROFIT: £0
JUN	• STAKES £1.20 • RETURN -£0.70	LOSS: £0.70

Terminology includes stakes, returns and profit, in line with language used on operator sites. No definitions are offered of what these terms mean.

More detailed breakdown of wins and losses over a given time period



Treatment 2: Prediction correction - This version incorporates a message highlighting the difference between participants bet predictions and the actual amount bet.



This arm was included to explore the effect of making differences between expected and actual results more salient to the user, specifically here the amount bet.

Participants are asked, before they see the activity statement, to predict how much they thought they had bet in the previous round of slot game play. This prediction is then shown alongside the actual amount bet.

The prediction correction message reads:

“You predicted you had bet £0.90 in the last round. You have actually bet £1.20, which is £0.30 more than you thought”

This message updated each round with a summary of the previous gameplay and updated true amount bet. In addition to testing the impact on gambling behaviour, we were interested in **whether individuals’ predictions would become more accurate as the experiment progressed.**



Treatment 3: Call to action - This version included an additional call to action asking people to reflect on their gambling and set up a deposit limit.



A deposit limit was chosen as the tool to signpost to within the call to action mainly due to it being the most well known and used tool.¹ In addition to testing the impact on gambling behaviour, we were interested in whether users clicked on the call to action and whether they chose to set a deposit limit.

The call to action was:

“Setting up a deposit limit could help you gain more control of your gambling. They allow you select how much you are willing to lose gambling and help keep gambling fun and affordable.

Click here to set up a deposit limit today”

Deposit Limit

A deposit limit helps you limit the amount of money you can transfer into your gambling account over a set time period if you would like to set a deposit limit, fill in the box below

Currently: No limit set

Frequency: WEEKLY

Deposit Limit:
Please enter amount

CLOSE SET DEPOSIT LIMIT

Clicking the link opens this deposit limit page. We used findings from a previous field trial² to inform the design of the deposit limit, namely by using a free text box.

¹ Based on data from [Gambling Commission](#)

² [Behavioural Insights Team \(2021\)](#) *Applying behavioural insights to design safer gambling tools.*



Methodology

Experimental design



We recruited a sample of 5,463 participants who regularly gamble in the UK.

BIT recruited 5,463 participants to take part in this experiment¹. Only people who reported that they gamble at least every few months (excluding National Lottery draws) were eligible to participate.

Gender		Short-form Problem Gambling Severity Index (PGSI) ²		Ethnicity		Region	
Women	50%	Non-risk	50%	White	89%	South & East	29%
Age		Low risk	20%	Asian	5%	North	27%
18-24	15%	Med risk	21%	Black	3%	Midlands	18%
25-54	66%	High risk	9%	Mixed / other	3%	Scot/NI/Wales	15%
55+	19%					London	11%

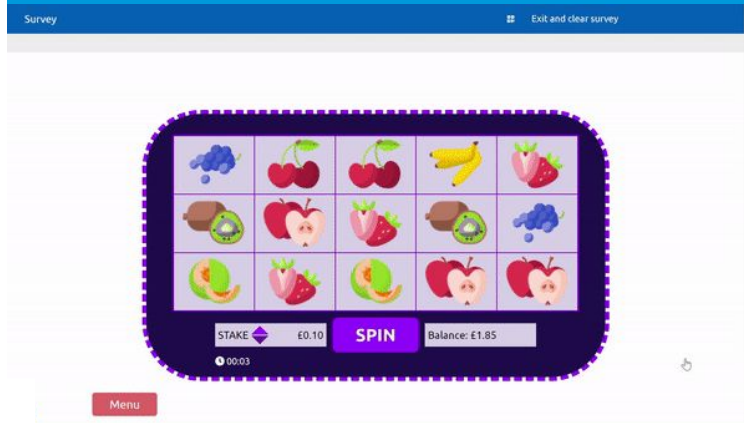
¹ Compared to gambling participation statistics collected by the [Gambling Commission](#) (noting that they use a broader definition of gambling: individuals who gambled at least once in the past four weeks excluding National Lottery draws), our sample contained more individuals aged 25-54 (30.9% vs 66% in our sample) and more individuals experiencing any problems from gambling per the short-form PGSI (low, medium or high risk) (11.2% vs 50% in our sample). We do therefore need to be cautious when extrapolating our results to a wider gambling population.

² We calculate a short-form PGSI based on 3 rather than the full 9 questions, to minimise burden on participants. A score above 4 is considered high-risk. We previously demonstrated similar classifications into categories (no to high risk) for the full and short-form PGSI in this online setting, suggesting the short-form PGSI is a good proxy of the long form.

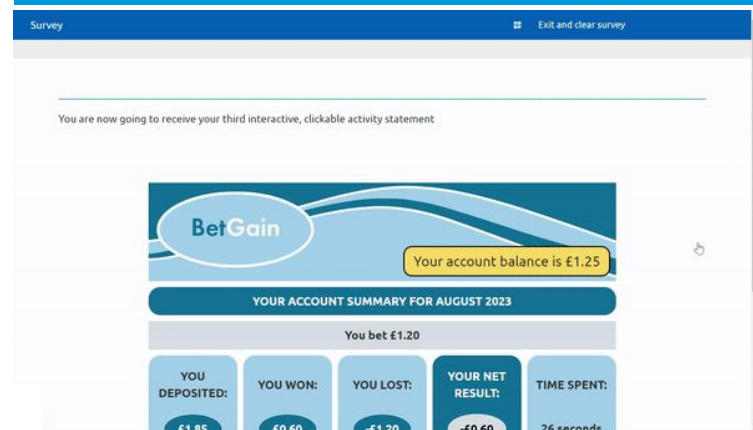


Participants played our in-house slot game 'Fruit Rush', which we used to simulate a real gambling environment and measure impact on gambling behaviour.

We used Fruit Rush to measure the impact of activity statements on our primary behavioural outcome measure, average total stake per participant.



After each game, participants viewed the activity statement for their condition.



Participants could bet a min. of £0.10 and a max. of £1.00 each spin.

The game automatically ended after 5 min or when participant's balance reached £0. Fruit repetitions in adjacent reels reward the following: (A) 3x: a bonus spin; (B) 4x: 3x of the stake; (C) 5x: 18x of the stake.



We ran this trial as an online lab experiment. While we tried to simulate real world behaviour where possible, there are some caveats when interpreting results.

Why run as an online lab experiment?

We wanted to build the evidence case for activity statements ahead of running a field experiment in collaboration with a gambling operator. This would allow us to be more confident in ruling out backfire effects and allow us to test more versions of the activity statements, as well as outcomes such as comprehension, which is not always possible in a field setting.

How did we simulate real-world online gambling?

- We asked participants to play on a slot game therefore allowing them to engage in actual gambling behaviour
- We asked people to bet with small amounts of money earned from an endowment task, to give them a sense of ownership of the money they used to gamble during the trial
- We asked participants to imagine a specific time period for each round of play



Lab or field?



In lab experiments, participants are presented with information in an artificial and controlled environment and asked to make hypothetical choices. In a field experiment, participants make 'real' choices, for example about gambling, directly on an operator's website. Here, their behaviour is therefore more reflective of what happens in real world situations.

Caveats when interpreting results:

We should still be cautious when drawing conclusions about a real world setting and extrapolating to different gambling contexts because:

- This trial only looked at gambling behaviour in relation to slot games, and the impact might be different for other types of gambling/ betting.
- Just because people (say they would) do something in an online experiment, this doesn't mean they always will in real life. Our primary outcomes are based on actual amounts bet, however (1) this is money earned within the experiment and amounts are small, (2) some secondary measures are based on self-report measures included within the trial, such as whether they think activity statements are easy to understand.
- Participants viewed the activity statement immediately after play. In the real world, there would likely be a greater time period between play and seeing a statement, which could impact recall and gambling behaviour.

Section 3: Findings

The impact of activity statements on gambling behaviour



Summary of findings

1. Seeing any activity statement resulted in lower amounts bet, lower average stakes and improved recall of the amount bet. Activity statements had no impact on the time spent playing or the number of spins.
2. The baseline and call to action statements performed best with respect to the total amount bet and average stake size, compared to receiving no statement.
3. 8 in 10 participants felt that activity statements were easy to understand and 9 in 10 thought they should be implemented.

- ✔ There is **strong evidence** that exposure to an activity statement results in less money bet compared to receiving no statement.
- ✔ There is **strong evidence** that varying the design of the statement impacts its efficacy. However, there was no variation between our two top performing treatments, the baseline and call to action.
- ❓ There is **some evidence** that activity statements improve recall, but this varies by the metric asked to remember.
- ✘ There is **no evidence** that higher PGSI scores are associated with smaller reductions in the amount bet compared to the reduction for lower PGSI scores.



Research Question 1

Does seeing an activity statement
reduce gambling behaviour-
specifically money spent?

RQ1: Does seeing an activity statement result in reduced gambling behaviour- specifically money spent?



Seeing any activity statement resulted in lower total amounts bet, lower average stakes, and improved accuracy in recalling the total bet value.



Total value bet
(round 2&3)



Average stake
(round 2&3)



Average spins
(round 2&3)



Bet recall accuracy[†]
(all rounds)

No statement

£5.99

0.50

34

£5.06

Statement

£5.87*

0.48**

32

£3.63**

Data collected by BIT between 16 June and 17 July 2023.

Reference is 'no statement' control

Covariates: Gender, Age, Ethnicity, PGSI Class, Location, Income, Employment, Round 1 balance, Round 1 bet

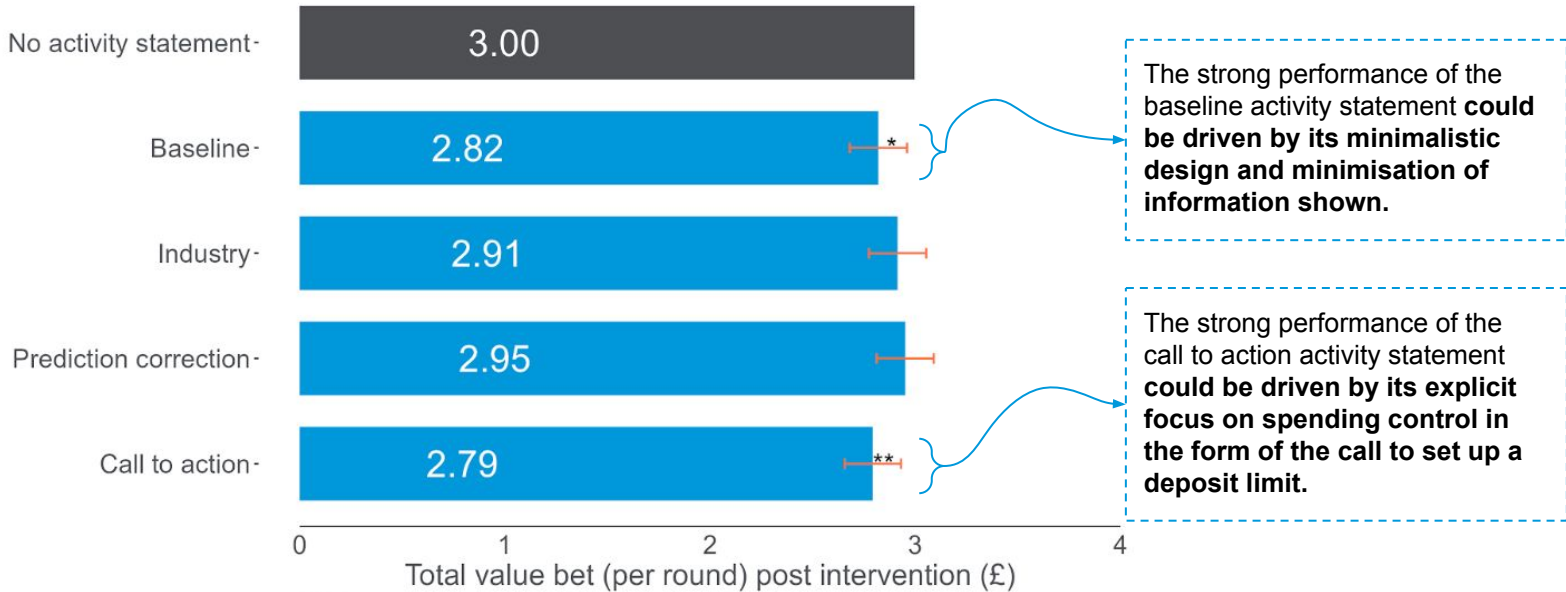
** $p < 0.001$, * $p < 0.05$, + $P < 0.1$

† This is the difference between the actual bet and the recalled bet, a smaller value indicates a smaller recall error and a positive value indicates an underestimate.

RQ1: Does seeing an activity statement result in reduced gambling behaviour- specifically money spent?



Participants who saw the baseline and call to action statements bet significantly less than those who saw no statements.



n = 10914
** p < .01, * p < .05, + p < 0.1
Primary analysis, with covariates
Corrected for multiple comparisons
Model = "Ancova (individual clustered SE)"

Data collected by BIT between 16 June and 17 July 2023.

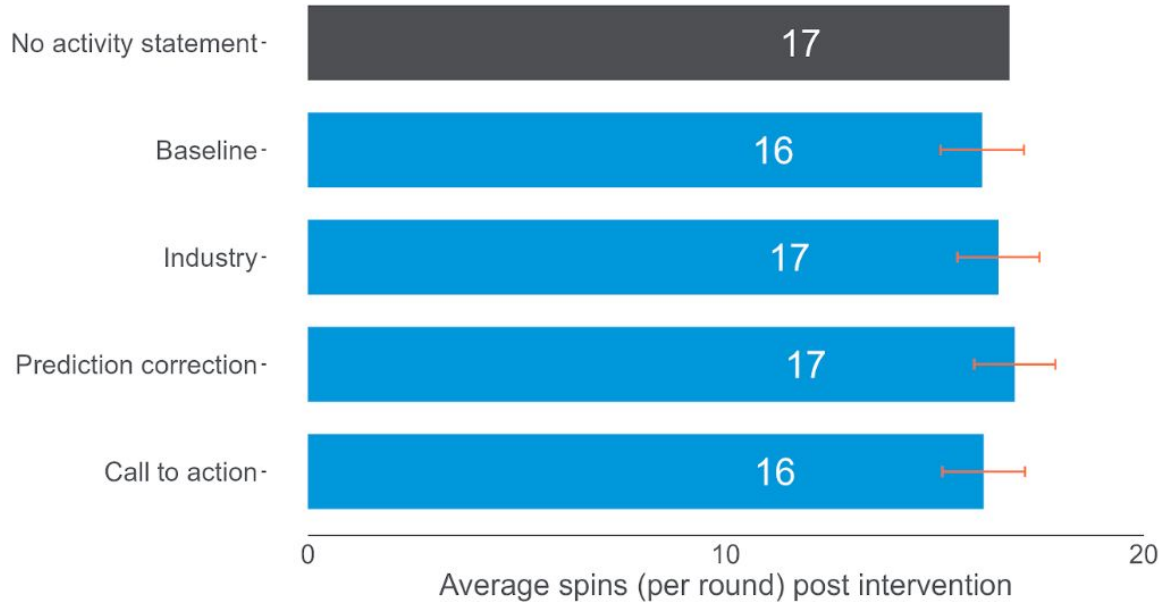
Reference is 'no activity statement'

Covariates: Gender, Age, Ethnicity, PGSI Class, Location, Income, Employment, Round 1 balance, Round 1 bet

RQ1: Does seeing an activity statement result in reduced gambling behaviour- specifically money spent?



There was no variation in the number of spins between arms, which may be due to the statements' focus on money lost as opposed to the number of spins.



Given the lack of impact of activity statements on the number of spins and time spent playing*, future research could explore whether refined designs could impact these metrics in addition to money-related outcomes.

n = 10914
** p < .01, * p < .05, + p < 0.1
Secondary analysis, with covariates
Corrected for multiple comparisons
Model = "Ancova (individual clustered SE)"

Data collected by BIT between 16 June and 17 July 2023.

Reference is 'no activity statement'

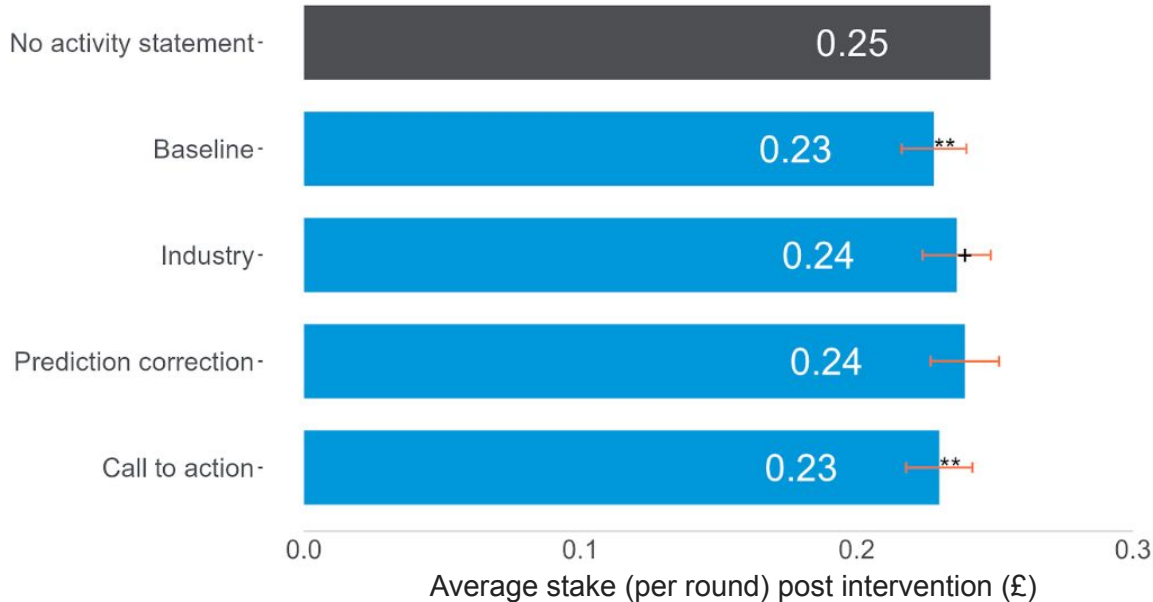
Covariates: Gender, Age, Ethnicity, PGSI Class, Location, Income, Employment, Round 1 balance, Round 1 spins

*Results for time spent playing not shown in this results deck.

RQ1: Does seeing an activity statement result in reduced gambling behaviour- specifically money spent?



Participants who saw the baseline and call to action statements significantly reduced their average stake per round.



n = 10914
** p < .01, * p < .05, + p < 0.1
Secondary analysis, with covariates
Corrected for multiple comparisons
Model = "Ancova (individual clustered SE)"

Data collected by BIT between 16 June and 17 July 2023.

Reference is 'no activity statement'

Covariates: Gender, Age, Ethnicity, PGSI Class, Location, Income, Employment, Round 1 balance, Round 1 stake



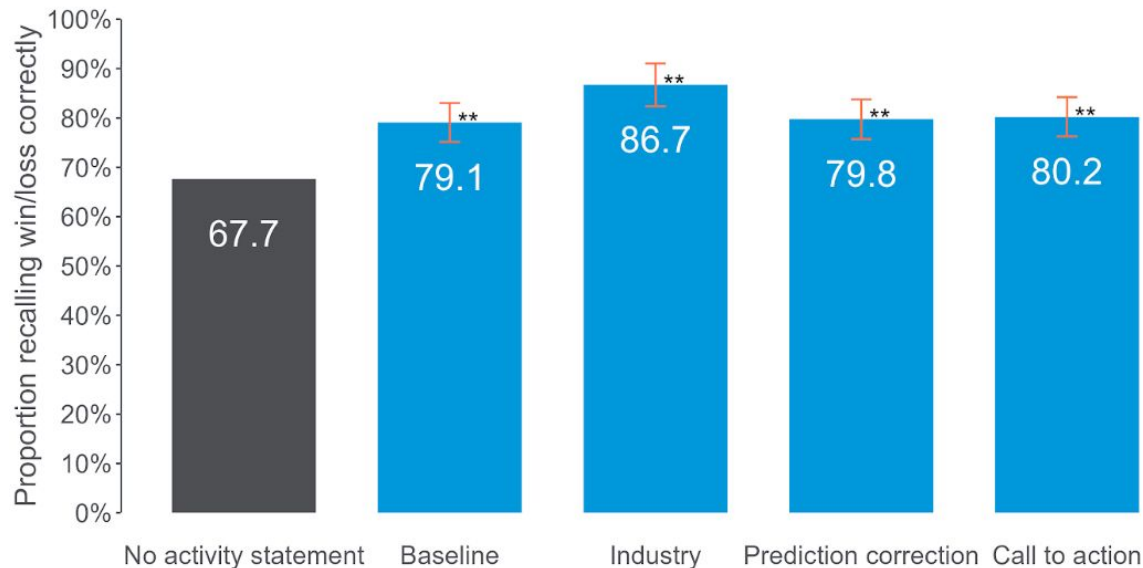
Research Question 2

Does the presentation of an activity statement increase awareness of how much people bet?



RQ2: Does the presentation of an activity statement increase awareness of how much people bet?

Activity statements increased participants' ability to recall if they had won, lost or broken even, with the industry arm performing best.



n = 5458

** p < .01, * p < .05, + p < 0.1

Exploratory analysis, with covariates

Corrected for multiple comparisons

Model = "Logistic regression"

Data collected by BIT between 16 June and 17 July 2023.

Reference is 'no activity statement'

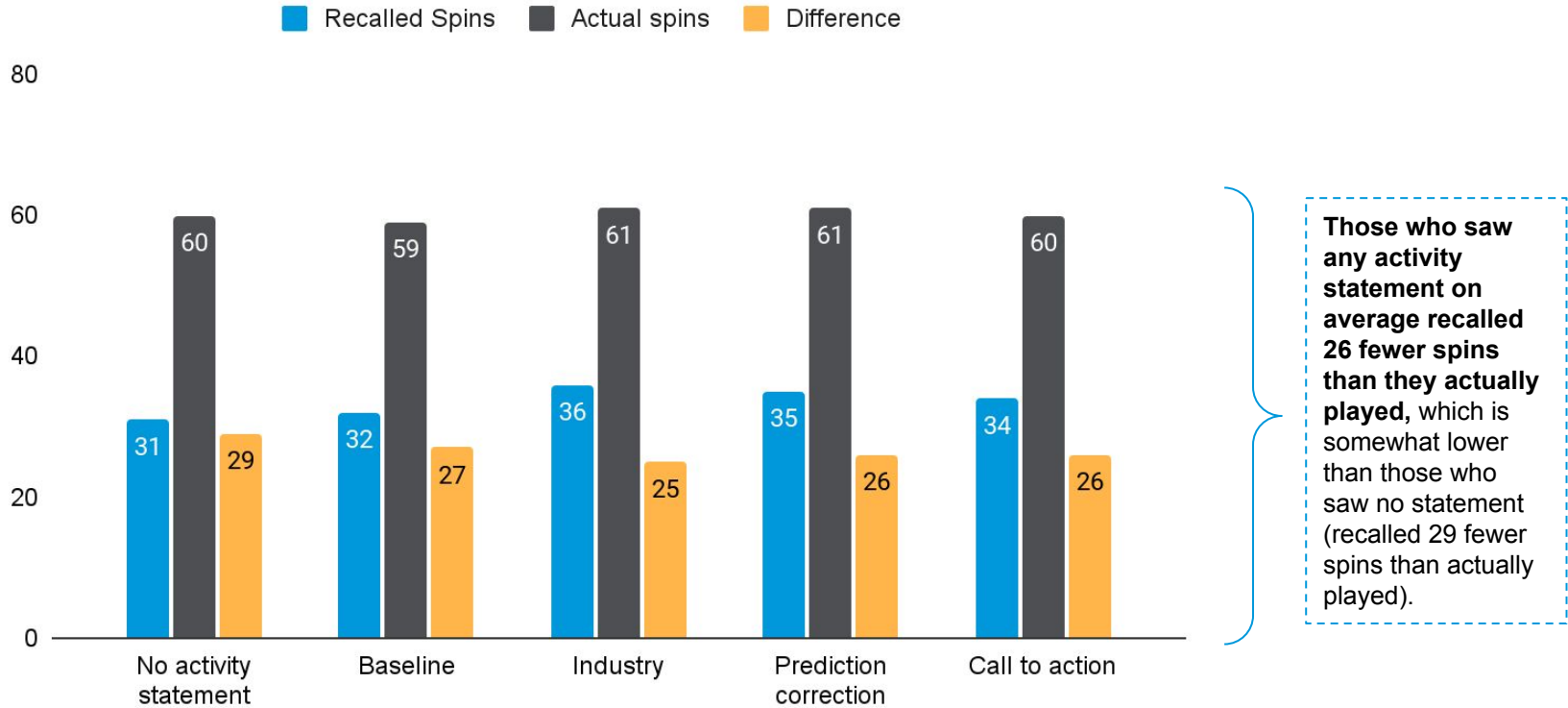
Covariates: Gender, Age, Ethnicity, PGSI Class, Location, Income, Employment, Round 1 balance

Outcome: Binary value taking 1 if respondent correctly remembered their overall performance (win, lost or broke even) and 0 otherwise



RQ2: Does the presentation of an activity statement increase awareness of how much people bet?

Recall accuracy of the number of spins played was higher for those who saw an activity statement, however overall accuracy was low.



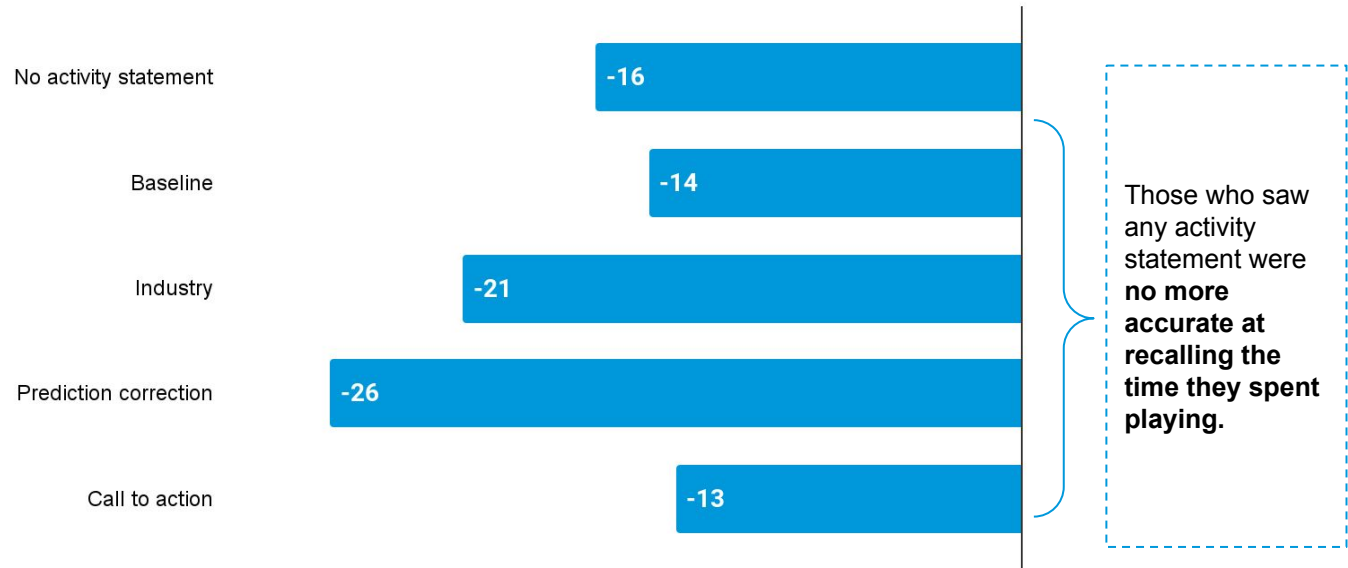


RQ2: Does the presentation of an activity statement increase awareness of how much people bet?

Activity statements had no impact on recalling time playing the slot machine. On average, all respondents overestimated the time they had spent playing.

Total time recalled (s)	Actual Time (s)
360	345
349	335
366	345
373	348
351	338

Difference between recalled time and actual time spent in seconds (All rounds)





RQ2: Does the presentation of an activity statement increase awareness of how much people bet?

People who clicked to open a graph had better recall. Those who lost were better able to recall their result than those who won, potentially due to **loss aversion**.



Using statement data

	Recalled result correctly
Clicked no graph	80%
Clicked any graph	84%**
Clicked all graphs	88%**



Result recall

	Recalled result correctly
Won	68%+
Lost	79%

Loss aversion describes the idea that losing hurts more than winning an equivalent amount.¹

Loss aversion could have had an influence on recall of results. **People who lost might have started paying more attention to their results** due to the pain the losses caused them.

Data collected by BIT between 16 June and 17 July 2023.
 Covariates: Gender, Age, Ethnicity, PGSI Class, Location,
 Income, Employment, Round 1 balance
 ** p < 0.001, * p < 0.05, + P < 0.1

¹ Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and uncertainty*, 5, 297-323.



Research Question 3

How do people feel about activity statements?

RQ3: How do people feel about activity statements?



8 in 10 felt that activity statements were easy to understand and 9 in 10 thought they should be implemented.

When asked for further feedback on the activity statements...



91% of participants who saw activity statements thought they had the right amount of info (stable for all statements)



88% of participants who saw activity statements thought they should be implemented (stable for all statements)

% of participants who thought the activity statement was...	Baseline	Industry	Call to action	Prediction correction
...easy to understand	84%	80%	85%	84%
...useful	77%	74%	78%	76%
...informative	83%	80%	81%	79%
...overwhelming	16%	14%	18%	13%
...boring	13%	15%	12%	14%



RQ3: How do people feel about activity statements?

Participants were broadly positive about activity statements and liked the designs. There were some concerns around potential backfires and confusing metrics.



Many found the information very informative, and easy to follow, however there was confusion around how best to interpret some of the metrics

- *“Very easy to see at a glance how much you’ve spent, won, and whether or not you’ve made a loss or gain”*
- *“I think it’s well formatted and not overly cluttered. It uses language that is easy to understand and digest”*
- *“There is some confusion around net result. Surely the amount I deposit is the amount I have lost, or the maximum I reach in that instance?”*



Some had suggestions on additional information that would have been helpful

- *“You have to press the net result button for the graph to appear, I think it should be visible without needing to click”*
- *“I think it could also state average bet per game”*
- *“It’s easy to read but I don’t think people are interested unless the colours were different. Reds for losses are more in your face”*
- *“Perhaps offer a weekly statement or you should be able to see daily statements when you click on the month”*



Some warned that seeing how much they’ve won/lost could encourage them to keep playing

- *“It’s good to see how much you lost as it is a deterrent. On the other hand people might play more to try to recoup what they have lost”*



Research Question 4

Do the benefits of an activity statement diminish at higher PGSI levels?



RQ4: Do the benefits of an activity statement diminish at higher PGSI levels?

We found evidence that activity statements may be most effective for those experiencing moderate levels of gambling harm.

Total amount bet after intervention	No statement	Any statement
No harm (PGSI 0) (N = 2,711)	£5.83	£5.48 ⁺
Low harm (PGSI 1) (N = 1,109)	£6.03	£5.91
Moderate harm (PGSI 2-3) (N = 1,142)	£6.59	£5.99 [*]
Severe harm (PGSI 4+) (N = 497)	£5.45	£5.83

Although not a statistically significant finding, there is some evidence that seeing a statement might increase the total amount bet for individuals with a high PGSI.

We are aware of some concern among experts that activity statements could lead to distress or backfire for individuals with high gambling spend, who confirmed this in user interviews. Future testing could oversample for this group and conduct statistical testing to check whether these results are still observed.

However, given the effectiveness on average, the overall aim should be to identify how activity statements can be implemented while ensuring that - where necessary - the risk of backfires in certain subgroups is mitigated.

Data collected by BIT between 16 June and 17 July 2023.



** $p < 0.001$, * $p < 0.05$, + $P < 0.1$


Reference = No statement

RQ4: Do the benefits of an activity statement diminish at higher PGSI levels?



Descriptive analysis suggests that the impact of an activity statement may also differ by gender, ethnicity and age.

	Men		Women			White		Ethnic Minority	
	No statement	Statement	No statement	Statement		No statement	Statement	No statement	Statement
Total bet after intervention	£5.81	£5.62	£6.18	£5.79	Total bet after intervention	£6.04	£5.81	£5.62	£4.82
Total stake	0.54	0.51	0.45	0.39	Total stake	0.49	0.45	0.54	0.44
Total time	3.07	2.88	3.24	3.28	Total time	3.16	3.10	3.11	2.90

	Under 25		25-54		Over 55	
	No statement	Statement	No statement	Statement	No statement	Statement
Total bet after intervention	£5.26	£5.20	£6.14	£5.87	£6.12	£5.50
Total stake	0.59	0.53	0.52	0.47	0.36	0.33
Total time	2.44	2.27	3.03	3.05	4.15	3.78

RQ4: Do the benefits of an activity statement diminish at higher PGSI levels?



Participants scoring low, medium or high on the PGSI, showed greater engagement with the call to action compared to those with no risk.

The call to action included the following statement.

“Setting up a deposit limit could help you gain more control of your gambling. They allow you select how much you are willing to lose gambling and help keep gambling fun and affordable.

Click here to set up a deposit limit today”

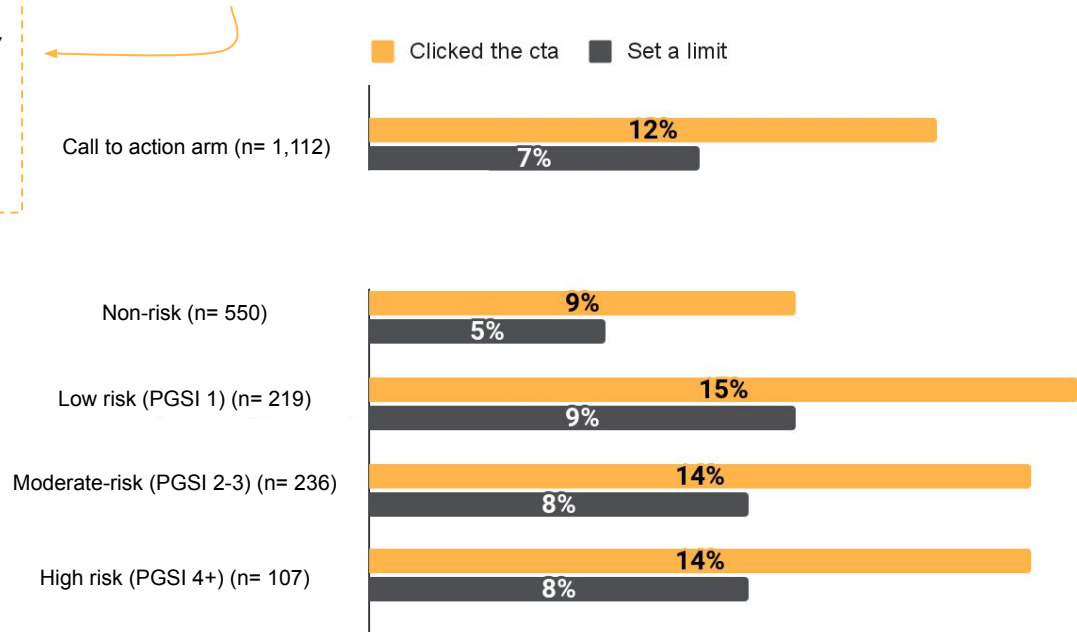


Of those who saw the call to action
(n = 1,112)

12%

clicked on it in any round

Call to action (CTA) clicks and limit set for any round



Summary



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Summary of findings

1. Seeing any activity statement resulted in lower amounts bet, lower average stakes and improved recall of the amount bet. Activity statements had no impact on the time spent playing or the number of spins.
2. The baseline and call to action statements performed best with respect to the total amount bet and average stake size, compared to receiving no statement.
3. The prediction correction arm performed best in improving recall of total amount bet.
4. 8 in 10 participants felt that activity statements were easy to understand and 9 in 10 thought they should be implemented.

- ✔ There is **strong evidence** that exposure to an activity statement results in less money bet compared to receiving no statement.
- ✔ There is **strong evidence** that varying the design of the statement impacts its efficacy. However, there was no variation between our two top performing treatments, the baseline and call to action.
- ❓ There is **some evidence** that activity statements improve recall, but this varies by the metric asked to remember.
- ✘ There is **no evidence** that higher PGSI scores are associated with smaller reductions in the amount bet compared to the reduction for lower PGSI scores.



Implications and recommendations

Implications

Activity statements can **help individuals manage their online gambling behaviour**, through allowing them to take more informed decisions.

Individuals want to see activity statements in real life: most participants thought they were easy to understand and that they should be implemented.

The baseline and call to action activity statements emerged as the most promising versions. **Further testing is needed** on each of these designs on an operator website and potentially on which refined designs may have an impact on time spent on gambling and number of spins.

This experiment was not set up to test how activity statements affect different levels of gambling (per the [Problem Gambling Severity Index, PGSI](#)). More testing is therefore needed to assess impact on groups of interest and rule out backfire effects, for example linked to people with high levels of gambling experiencing distress when seeing their gambling spent or engaging in loss chasing.

This experiment did not investigate which **method of delivery** would be most effective for activity statements.

Recommendations



Roll out activity statements across online operators, incorporating this within upcoming White Paper consultations.



Trial the baseline activity statement and activity statement with call to action (to use gambling management tools) with gambling operators, with a specific focus on impacts to different PGSI groups.



Research and trial the delivery of the activity statement with gambling operators (email, app, website, in-play updates etc.)

Appendix



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UNIT



An in-depth scoping phase informed the design of the different activity statements.

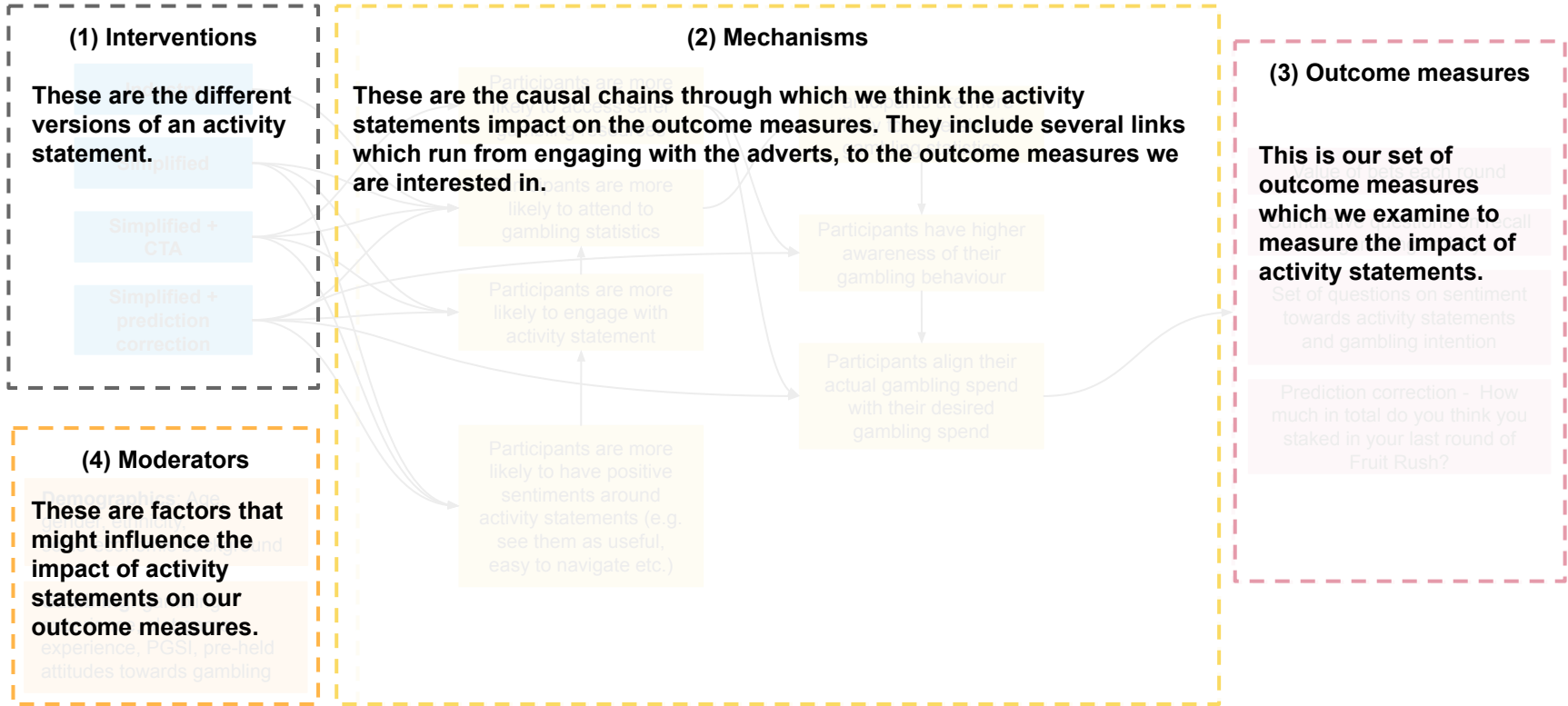
Activity	Description	Learnings
Evidence review	We conducted a rapid evidence review on the most effective design of activity statements. Evidence provides (limited) information about effective design and delivery of activity statements	Research gaps indicated we should focus on the content, design, and timing of activity statements ¹
Expert interviews	We held interviews with a range of key stakeholders to get their steer on activity statement design	- <i>Design and content</i> : 1) include salient elements to capture attention; 2) include recommendations; - <i>Reception and timing</i> : Send at the optimal moment
Gambling management survey	We ran a survey investigating sentiment on activity statements and gather feedback on what features should be included (n=2,000)	-Individuals want them sent via an app and by their operator -Individuals want to receive them weekly ²
User interviews	We conducted interviews with individuals with lived experience of gambling harm and individuals who gamble, showing them prototype of potential activity statements, to get their feedback	-People want to see trends over time -Desire from users for personalisation, in terms of delivery method and frequency

¹ Research from Australia shows activity statements are generally effective in reducing amount staked. See: Behavioural Economics Team of the Australian Government (2018). *Better Choices: Enhancing informed decision-making for online wagering consumers*. Available at: https://behaviouraleconomics.pmc.gov.au/sites/default/files/projects/better-choices-online-wagering-report_0.pdf

² Scientific literature shows support for the hypothesis that individuals are better at managing their money on a weekly basis compared to a monthly basis. See for example: Hershfield, H. E., Shu, S., & Benartzi, S. (2020). Temporal reframing and participation in a savings program: A field experiment. *Marketing Science*, 39(6), 1039-1051.

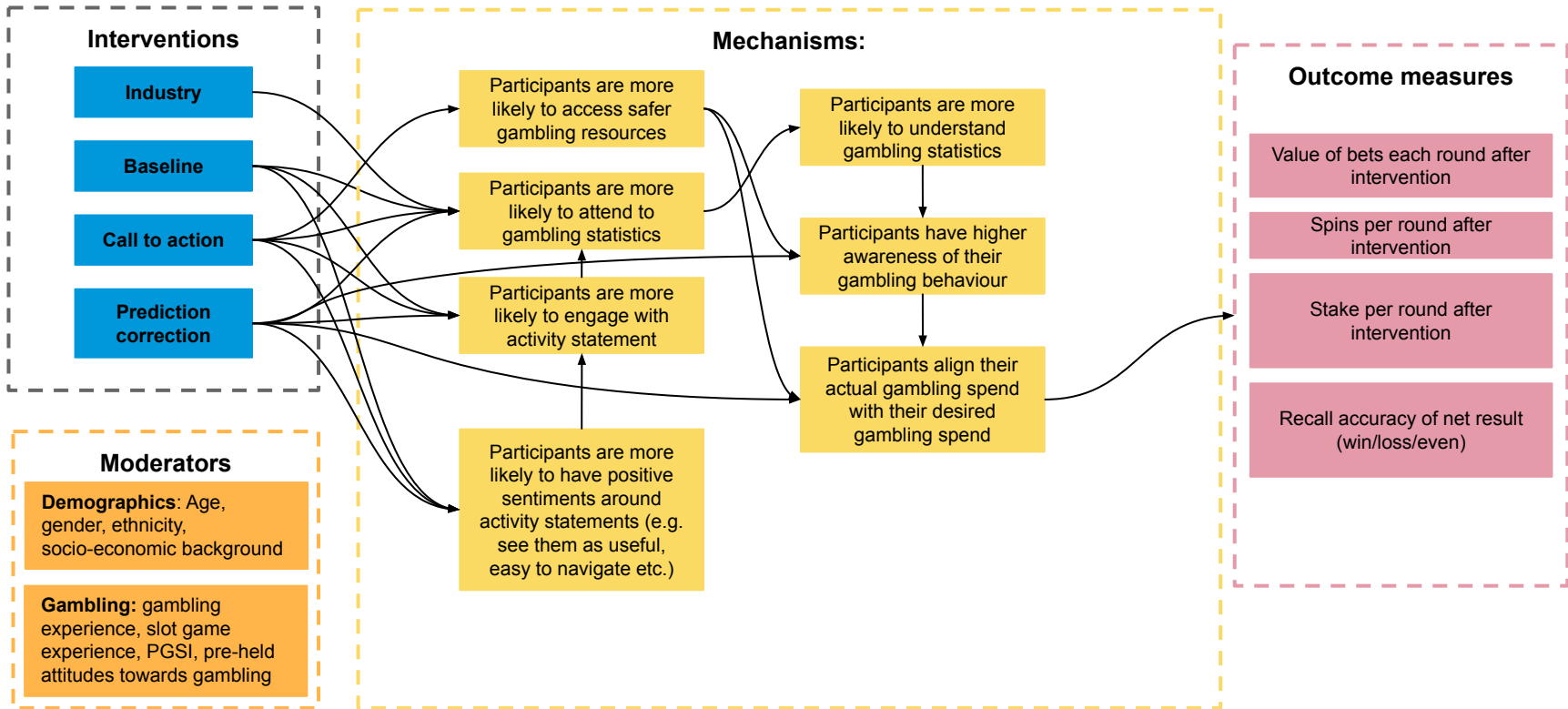


A Theory of Change outlines how we predicted each 1) intervention would affect the 3) outcome measures, through the 2) mechanisms.





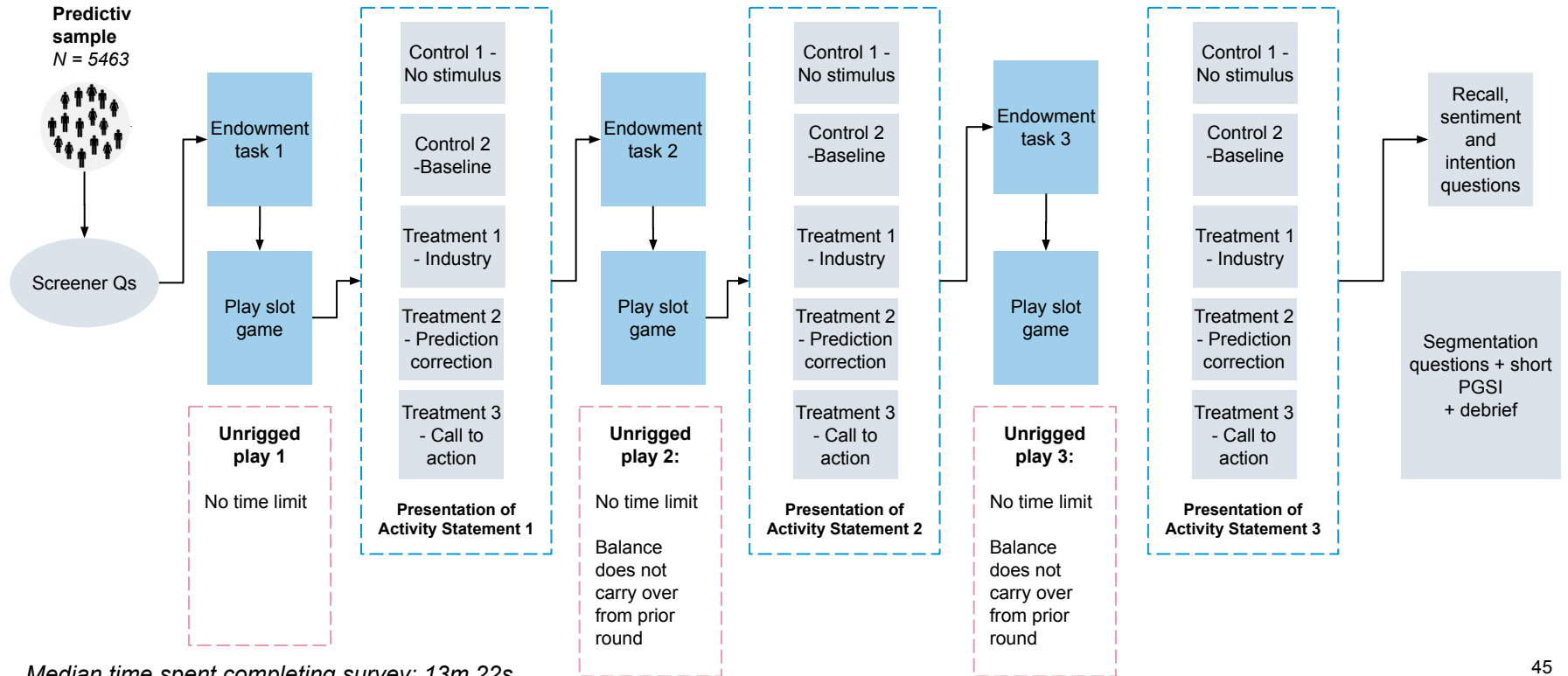
We identified attention to and engagement with gambling statistics as the main mechanisms through which activity statements affect gambling behaviour.





Appendix 3: Detailed experimental flow

Participants played an online slots game three times and were shown a new activity statement each time followed by questions on recall and their behavioural intention.



Median time spent completing survey: 13m 22s

Also collected data for all respondents on income, education, employment and PGSI mini-screen category (calculated within survey).



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