

AMC Convergent IT



**REVIEW OF GAMBLING HARM
MINIMISATION MEASURES – CALL
FOR COMMENTS BY THE
INDEPENDENT PRICING AND
REGULATORY TRIBUNAL OF NEW
SOUTH WALES**

(ref 03/213)

Submission By AMC Convergent IT

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Preface to the contents of this report:

The comments on the various reports, and the review of those reports are confined to what is considered the most salient issues. It is acknowledged the difficulties researchers face in conducting research projects in the gambling/gaming and problem gambling fields. The review of the papers submitted to us by IPART is based upon the information contained in those reports and whilst there are critiques on conclusions, methodology and other various aspects of the provided reports no intended personal or professional criticism is meant of either the researchers or reviewers:

1. Executive Summary

We have confined our response to four papers:

- **Testing of Harm Minimisation Messages**
- **Modification to Machines**
- **Venue Shutdowns**
- **The Psychological Causes of Problem Gambling**

We have three major comments.

1. The two studies; testing of messages and modification of machines, illustrate the difficulty with the quality of some of the current research, resulting in unclear and unreliable information to policy makers.
2. Gambling is an individual, not group activity. This dictates, that solutions enabling responsible gambling and targeting problem gambling must be individually based. Many of the mooted strategies miss their mark because they fail to make this fundamental link.
3. The work and conceptualisations of Prof. Dickerson and colleagues, points to a direction, which will lead to effective harm prevention strategies.

1.1 Current Research

It is our view that the design and methodology of the two studies (testing of messages and machine modification) do not allow unequivocal conclusions and therefore confuse policy development. The review (Auckland UniServices Limited, 2003) into the study on modifications to machines helps even less.

In regard to the conclusions of the two studies and the review, we make the following comments. Without further empirical basis, we consider that messages on screens in the form tested do, little to assist gamblers. Conclusions in regard to the review of the study on machine modifications are dangerously unsafe. The obvious limitations and cautions in the two studies and review, appear to be given less credence than they warrant, and in the review, do not find their way into the conclusions. We suggest that actioning those machine modifications on the basis of these studies has the potential to do more harm than good. Specifically, reducing maximum bets size and reel spin may in fact keep gamblers, gaming for longer, risking recruitment of more gamblers into the problem gambler population, and others to episodes of impaired control and therefore gambling harm.

Social research is never easy, however, valid and reliable research is more easily accomplished by access to a population database of actual gambling behaviour. Such a database is available through web-based technologies, which continuously record

gambling behaviour. There is only one such system known to us, and that is Gambler Subtle Assist, which has been submitted to IPART in a previous review.

1.2 Flawed Group Focus

Along with untargeted messages on screens and machine modification, mandatory shutdowns is an undifferentiated group strategy of “denial of access” to all gamblers. It cannot succeed because it fails to reflect the fact that gambling is an individual activity. *Individual problems need individually focused solutions.* To implement global harm minimisation strategies could indeed achieve benefits to certain groups of gamblers, but at a cost to the majority gamblers, industry and governments. Many of the mooted strategies have the effect of reducing the pleasurable aspects of gambling itself, or will simply ban or block gambling for all, ie, venue shutdowns.

The study into shutdowns is based on qualitative data, and without wishing to comment on the reliability and validity of the data, is fundamentally a collection of opinions. A 24-hour shut down is a banning or removal of egm gambling and is not currently an option, yet 3-hour shutdowns are on the same continuum. 3-hour venue shutdowns are like a neurosurgeon using an axe in place of a scalpel. On the other hand, a shutdown strategy applied to individuals provides, whatever benefit machine shutdowns may have, without affecting players who do not need it. This approach is surgical as it only applies to individual players. Web based technologies enable shutdown or prevention of play of a specific player, from all forms of gaming, without requiring shutdown of venues, whilst not affecting the play of others for whom shutdowns are unnecessary. Individual focus turns an ineffective crude strategy into a potentially effective one. To extend the surgical analogy, web based technologies replace scalpels with lasers; maintaining the productivity of venues, convenience of recreational gamblers, by enabling this effective harm prevention measure to only be directed to those who require it.

In regard to messages on screens, we strongly suggest that web based technologies, which enable “at risk” and problem gamblers to be identified from their actual gambling behaviour and allow messages to be specifically tailored and presented to those individuals, provide the best method to send messages to gamblers. Web based technologies can be programmed to *only* send messages to those gamblers who need to heed them. Again, we are aware of no other system, other than Gambler Subtle Assist, which enables this.

1.3 Effective Harm Prevention

Professor Mark Dickerson and colleagues’, report on the other hand suggests conceptualisations of a pathway “leading from impaired control to gambling related harm.” (Dickerson, M., Haw, J., and L. Shepherd, 2003, p II, III). They conclude, “that impaired control is a common and “natural” experience of the typical regular egm player” (Dickerson, et al, p 7). We strongly support this view of the failure path to problem gambling, and even regular players who would not yet be defined as “problem gamblers” also experience gambling harm from time to time and yet this harm is not currently addressed. We strongly advocate harm prevention mechanisms be implemented, which not only provide direct assistance to problem gamblers but

assist all gamblers, recreational and regular, avoid control impairment leading to gambling harm. In the same way, assistance is not targeted to alcoholics only; we should not wait till someone is identified as a problem gambler before safety mechanisms come into play.

In regard to the findings of Dickerson, et al, we agree,

“the crucial readjustment is that the issue needs to be considered not in terms of some individual difference(s) inherent in some players but that loss of control is the common and expected outcome of regular interaction between human beings and contemporary forms of continuous gambling.” (Dickerson, et al, p 23).

To focus on the problem gamblers as aberrant or flawed individuals and denying the problematic nature of gambling itself, allows gambling organizations to maintain it is the individual who is at fault and the gambling experience is perfectly safe. Past research has concentrated on defining the personality traits or psychological status of individuals and has neglected the risk potential of gambling itself. We are not advocating removal of gambling as a legal activity, but we are advocating, mandatory mechanisms to assist all gamblers retain control over their gambling and thereby avoiding impaired control and prevention of gambling harm.

Dickerson et al, cannot make a stronger statement, in regard to the inappropriateness of characterising problematic gambling as only occurring because a few gamblers are “disordered or pathological”, than the following:

“the idea that the harmful impacts of gambling arise in a few mentally disordered or pathological gamblers is utterly false. It seems that if one plays a gaming machine for 4 hours or more per week, making 13 purchases of a game per minute, find the process emotionally stimulating and an escape from frustration of everyday life, then impaired control over the duration of the session is a natural and expected human response” (Dickerson, et al). It is not a defence to this statement, that these gamblers only experience loss of control because they are escaping from everyday life. That we all experience the need to escape from time to time, makes all of us potentially vulnerable to what Dickerson describes; and if so, must demand protections be in place.

Perhaps the statements by Dickerson, et al, which best sum up our perspective in this regard are,

“changing the machine **or** the player to not lose control is ill conceived”

and

“A more appropriate aim from a consumer protection perspective is to maintain the integrity of the gaming experience- it is clearly enjoyable and what the consumer wants – and yet to prevent the enjoyed loss of control resulting in excessive, and harmful expenditure.” (Dickerson, et al, p 24)

Dickerson, refers to “in control” players, employing various strategies (Dickerson, et al, III), including:

- Setting strict time limits
- Strict monetary limits
- Avoiding gaming venues

Dickerson reports that nearly half of all regular players fail to maintain control at least some of the time (Dickerson, et al, 22). Gamblers may have every intention to stick to those limits but falter at the gate. Dickerson and colleagues' notion of pre-commitment and separation of gambling decisions away from the gambling floor, by time and geography, is the way forward to assist all gamblers set limits and stick to them.

Requiring all gamblers:

- To possess a card or other identification
- Readable by a central system
- Authorising or enabling gambling by that individual
- According to pre-commitments or parameters chosen by the individual at the time of acquiring of the card, or as from time to time amended,

applies this pre-commitment notion in practice.

We also agree with Dickerson, et al that *education campaigns and attempts to remove addictive components of poker machines are misdirected and unlikely to succeed*. We strongly agree that operators cannot detect problem gamblers, nor can they effectively exclude them. Problem gamblers can however be identified by their actual gambling behaviour recorded by web based technologies, and assistance directed to them. With web-based technologies, self-exclusion systems work and underage gambling is prevented.

In their recommendation section, Dickerson et al, state,

“In the context of the current trend toward cashless gambling/gaming there is now both the knowledge base and the technology to enable governments to develop a consumer protection environment that balances the individual freedom of the player with the opportunity for the community to prevent problem gambling and underage gambling ‘at a stroke’. In contrast to the present burgeoning bureaucracy associated with responsible gambling a regulated consumer protection approach could be derived from the one principle of defending the ability of all gamblers to make rational, controlled choices (and could be applied to all new gambling products as they emerge) and could be fully automated and web based. At the same time providing for very effective methods for assisting existing problem players.” (Dickerson, et al, p 25)

Nothing describes Gambler Subtle Assist better than this statement by Dickerson, et al. Gambler Subtle Assist is the only web-based system, of which we are aware, that will achieve these outcomes.

2. Testing of Harm Minimisation Messages

The authors of this report (Consumer Contact, 2003); caution the reader that the findings are suggestive, and not definitive. The authors indicate it is customary to remind the reader, that because of the methodology used and the small sample size, their qualitative research precludes statistical projections. We would go further and *warn*, rather than remind the reader, that the limitations in the methodologies and description of the study preclude any replication of this work, and few if any conclusions should be drawn in regard to the study objectives.

The research method and description of the method fail to meet the standards required of an academic work.

2.1 TECHNIQUES

The authors consider FOCUS GROUP DISCUSSION is a highly appropriate method when dealing with emotional issues and attitudes. This may be the case but it does not easily enable a link to be made between a particular message, or any message on screen, and a “call to action” response by an *individual* gambler. The dependent variable resides in the individual and to seek data on that variable from group discussion is an inappropriate methodology and introduces uncontrolled variables, impossible to parcel out. This being said, any conclusions drawn must be treated with great caution.

2.2 FOCUS GROUP STRUCTURE

Five groups were formed into age range and single gender groupings.

- There is no suggested basis as to why the groups were formed in that way.
- The third group of males, aged 35 to 55, has no equivalence in a female group.
- It is not described how these participants were selected so no assessment of self-selection bias can be established. We are not told how many refused participation, and therefore the reader has no ability to further judge the representativeness of the groups formed. It is not explained how these groupings are representative of gamblers in general.

Conclusions are made as to the effectiveness of certain messages on regular or problem gamblers; however, the groups selected cannot confidently be known to represent regular or problem gamblers. The age distribution of the participants has not been demonstrated to represent the normal spread of age range for regular or problem gamblers. To define problem gamblers as those who gamble at least 3 times a week and answered yes to one question, introduces an untested definition of problem gambling. It is not supportable that the authors claim in their conclusion, that the results represent regular and problem gamblers, and gamblers generally.

2.3 THE STIMULUS

It is stated that half the respondents for each focus group played random message machines and half played running order messages. How is this possible given there were 9 in each group?

2.4 THE TEST MESSAGES

One section of the report clearly states the wording of the messages tested. The findings section has entirely different messages described. It is not clear which messages were presented to the participants, or how often.

2.5 THE INVESTIGATIVE PROCESS

It is not described how long participants played the stimulus machines or whether those who viewed the random order messages played for the same time those who viewed the ordered messages. It is not clear but is implied, the participants played the machines at Consumer Contact's offices. Presumably the participants were informed about the study as they gave their written consent. If so, the strong demand characteristics of knowing why they were there would further influence the import of the messages on the screen. This adds to the difficulty of generalizing the results to real gambling venue settings. There is no discussion as to the effect of these demand factors, or the knowledge by participants that they would be interviewed, would have on the responses of the participants. Some may argue that providing a more clinical setting, such as the Consumer Contact's offices, provides the best way to compare the efficacy of the various messages. This would lead to the assumption that the relative efficacy of each message remains constant across different settings and this draws a long bow. It could equally be argued that conducting testing of messages in clinical settings introduces further uncontrolled variables, making generalisation of findings to gambling venues unsafe. *If overall, messages sent in this way, in this setting and with these demand characteristics, fail to show significant effects, then it is less likely they will be noticed or absorbed in the highly charged and stimulatory environment of the gambling venue.*

Some time after playing on these machine participants were gathered together for focus sessions. There is no description of the time intervals involved or account taken of the obvious fact that the interval between cessation of play and focus sessions varied between individuals.

Participants were asked to nominate the three messages that had the most personal impact. Having asked for three messages to be nominated by participants and then claim, "There is a TRILOGY of messages that resonates with target gamblers", as if they have discovered an important psychological truth, is more than tautological.

Participants were asked as a group which three messages had the most impact. The objective of the study was to evaluate the impact and effectiveness on gambling behaviour of messages on screens. *The impact is on the individual, and the*

researchers appropriately, asked questions of individuals immediately after their gambling session. However, the authors make much more of the responses obtained from the focus groups. Specifically, participants were asked the question about impact, AFTER the group discussion. The responses cannot truly be assured to represent the impact on the individual as the responses recorded after group discussion are likely influenced by that discussion. During the focus groups, the messages were repeated to the participants in writing, and discussed. It cannot, truly be claimed that the responses, represent the impact of the messages on egm screens; rather it is likely, the repetition of the messages and discussion in the focus group determined the responses obtained during focus sessions.

The lack of internal consistency of responses between participants' responses immediately after play, and responses recorded at focus sessions, clearly points to group influence of individual responses during those sessions. Immediately after play, of the 44 participants, only 7 recalled the message, "Have you spent more money on gambling than you intended?" Yet, after the group session and after an undisclosed time interval, 39 participants of the 44 said this was the message that had the most personal impact. A corollary of this is that the most efficacious message, as suggested by the focus groups, has little impact at all, as 7 individuals or only 15% of participants only recalled it.

2.6 CONCLUSIONS AND RECOMENDATIONS

Several statements in this section are either unsupported by the findings, or are in contradiction of the authors' own discussions of the findings, or at least go beyond what can validly be claimed.

The tautological claim of a TRILOGY of messages has previously been discussed. One of the TRILOGY messages, "Are you gambling longer than planned?" is described as one of the two triggers which has universal application to the gambling population and is one of the three most effective, as it acts as a trigger for gamblers to question their behaviour. This message was not mentioned by the participants as one that would prompt a call to G-line. It is then difficult to understand its status in the conclusion as a TRILOGY member. One can more easily conclude with the authors,

"The EFFECTIVENESS of these messages however, is somewhat limited when considering their ability to issue a call-to-action to assess regular and problem gamblers' current behaviour and then to consider a change in the future". (Report, p23)

We conclude, this study is not helpful in progressing the understanding of the usefulness, or otherwise, of messages on EGMs as a harm minimisation tool. The study is faulty in its design and faulty in regards to its conclusions and statements made. If some credence can be placed in the participants' initial recall of the messages, then the effectiveness of these messages is further questioned. Of the 792 total possible recalls of 18 discrete messages by 44 participants there were only 139 recalls of messages immediately after cessation of play. Some of these recalls, are obviously aided by previous knowledge by participants triggered by what they saw.

For example, 24 participants registered G-line and 7 recalled the G-line number. It is likely, that for at least some of the participants, recall came from long-term memory attained by means other than exposure to messages on screen.

Our considerations and work suggest that, messages to specifically targeted individuals are a fruitful area of research. We strongly suggest that web based technologies, which enable identification of “at risk”, problem gamblers and those experiencing “impaired control” by their actual gambling behaviour, allow messages to be specifically tailored, targeted and presented to those individuals. It is more likely that these individuals would heed the messages given, as they have direct and personal relevance. *Messages sent at random to every gambler, are soon learnt to be ignored*, because statistically, they are unlikely to apply to an individual gambler at that point in time. Such an approach is likely to teach individuals to ignore such messages. Web based technologies can program messages be sent, only to those gamblers who need to heed them. Targeted messages are a practical reality and provide the best way to present messages via EGMs.

3. Machine Modifications

The following reports were considered in this section:

- University of Sydney Gambling Research Unit (USGRU) Final Report (Blaszczynski, Sharpe & Walker, 2001): *The assessment of the impact of the reconfiguration on electronic gaming machines as harm minimisation strategies for problem gambling.*
- Centre for International Economics (CIE), 2003, *Gaming machine revenue at risk The impact of proposed modifications to gaming machines in NSW*
- Auckland UniServices Limited, 2003, *Assessment of the Research on Technical Modifications to Electronic Gaming Machines in NSW, Australia – Final Report*

The authors (referred to here as researchers) of the USGRU report, themselves understood and indicated the limitations of their own studies:

- The clubs and hotels involved were a sample of convenience and cannot be assumed to represent of clubs and hotels state wide (University of Sydney Gambling Research Unit (USGRU) Final Report, Blaszczynski, Sharpe & Walker, 2001, p 7,63).
- Patrons who participated were not a representative sample of the gambling population as a whole. The proportion of problem gamblers within the sample group does not match the generally accepted proportion of problem gamblers within the gambling population. The authors state that it was not possible to determine the proportion of participants who agreed or not to take part in the study. The researchers state that a large proportion declined to participate in the study. (USGRU, p 62)
- There is likely a differential effect between recreational and problem gamblers in agreeing to participate in the study. (USGRU, p 62)
- The researchers state, “The results of study 2 therefore should be used as a guide to inform decision making policies with the proviso that findings may not be generalized to the total population of hotel and club patrons.” (USGRU, p 62)
- That participants knew they were observed while playing was likely to affect how they gambled. The researchers describe the possible effects of this on gambling behaviour. (USGRU, p 62)
- There was some interaction between participants and observers that likely affected how they gambled. (USGRU, p 62)
- The researchers go further and say, “these factors warrant caution in extrapolating these results to all gamblers across NSW or indeed other states or countries.” (USGRU, p 63)

Auckland UniServices Limited; referred to herein as, the reviewers, also supported and extended the concerns of the authors.

We cannot agree with either the USGRU researchers that, “The study is relatively naturalistic...”, or with the reviewers’ statement that the research was conducted so.

The following features of the study environment are hardly naturalistic:

- Signs displayed in venues indicating a study was in place
- PA announcements proclaimed a study was in place
- Study area roped off
- Several observers obviously present
- Machines with signs indicating they were experimental
- Large proportion of approached patrons refusing to participate
- Patrons that did participate, drinking and smoking less and leaving early

Participants clearly did not think they were in a “naturalistic setting. This, and the fact that certain buttons were disabled, undoubtedly giving the impression to players that there were playing “dud” machines, can explain the findings, that patrons spent less time on modified machines. The researchers recognized this limitation. Players would likely do their duty as voluntary participants and then get on with playing real machines in the venue proper. That there is some evidence they did stay longer on the unmodified modified machines which still accepted \$10 max bets, could likely be because they worked as expected. Players gambled with their own money and would likely, be less inclined to spend their own time or money on experimental machines, when there was real gambling to be done in the venue. That the participants did stay at the machines for long periods of time at the experimental machines, leads us to conclude that the selection process did result in heavy skewing resulting in a remaining sample of players who spent considerably more time on these machines than in the venue proper. Discussion further in our submission elaborates on this point.

3.1 Researchers’ conclusions & recommendations in regard to reduction of maximum bet size.

- Reducing the maximum bet size did not appear to lead to sessions being prolonged. However, it is possible that this reflected a player’s choice to use a different machine where the larger bet sizes were available or to substitute other forms of gambling. While there was no evidence in this study that reducing the maximum bet size would have any effect on persistence in play, only further research that investigated patterns of play in venues where all machines were modified, would resolve this issue. (USGRU, p 10,11)
- This study provides preliminary evidence to support the effectiveness of reducing the maximum bet size from \$10 to \$1 on electronic gaming machines for at least a small proportion of players. (USGRU, p 11)

The researchers provide a strong caution to the findings, stating, “It is important to note that this study is being conducted under conditions of choice. Players may elect to play the standard or modified machines or to avoid them. If all machines were modified in any of the ways investigated here, it would not be possible to draw strong inferences concerning expenditure and time on machines under conditions of no

choice from the data available in this study. Both the expenditure data and the time data are best regarded as measures of the extent to which players prefer one kind of machine (standard) over the other kind of machine (modified), or their indifference to the modifications. Extrapolations to conditions of no choice must be made with caution.” (USGRU, p 71)

3.2 Reviewers’ conclusion in regard to reduction of maximum bet size.

- The reduction of maximum bet size shows strong potential as a machine-based modification to minimise harm associated with problem gambling.

The reviewers themselves express caution regarding generalizing from choice to no-choice situations. The reviewers claim a major limitation of Centre for International Economics (CIE), 2003, Study 1 and 3, is that the conclusions of that study are based on the assumption that player behaviour in a choice situation represents future behaviour in a no-choice situation (Auckland UniServices Limited, p 61,63). The reviewers say such an assumption is unwarranted (Auckland UniServices Limited, p 63). Even more strongly the reviewers state, “Regarding the economic impact, the review team feels it’s highly problematic to extrapolate from the individual machine level to venue level in an environment where patrons could choose between modified and unmodified machines” (Auckland UniServices Limited, p 30). They then go on to demolish the conclusions of CIE Study 1 and 3 on the basis of this unwarranted assumption. Inexplicably, they do not apply the same standard to the USGRU studies, and in fact appear to accept this “unwarranted” assumption, and indeed strengthen their own conclusion, in regard to modification of maximum bet size, beyond the conclusion of the researchers. They do recognize the difficulty with generalizing the findings in choice to no-choice situations in the USGRU studies and point out, “Difficulties in extrapolating findings from research findings that allow for choice between modified and unmodified machines to proposed no-choice setting” (Auckland UniServices Limited, p 54,55). In regard to the USGRU studies, they do not go as far as saying; the assumption that findings would be representative of future behaviour in no-choice situations is unwarranted. The reviewers are well aware of this serious limitation but appear to ignore it.

The reviewers’ conclusion, that the authors of the USGRU report weakened the strength of some of the findings and dampened the implications for harm minimization in their executive summary, appears to imply some bias on the part of the USGRU authors (Auckland UniServices Limited, p 22). One is tempted to suggest the reviewers themselves are selective in regard to the application of the assumption of generalization. One could also conclude, the reviewers have made a stronger, than warranted case for the benefits of the machine modifications in the USGRU report, and down played the revenue implications in the CIE report. To us, the reviewers’ conclusions in regard to the findings of these two reports are at odds. It is not possible to effectively reduce problematic gambling and not affect revenue at the same time. The greater the impact on problematic gambling, the larger the revenue impact must be. Our contention is that if they applied their concern regarding generalization, in the same degree to the USGRU studies, they would not possibly make the strong conclusion they do. They do not temper their conclusion that reducing maximum bets shows strong potential to minimize harm, which is based on the same assumption. We

suggest their strong conclusion is unwarranted on the basis of this suspect assumption alone, despite the other serious flaws in study methodology.

3.3 Reel Spin

There is a general consensus between the researchers and reviewers that this measure is not a useful harm minimisation strategy. We consider that the researchers came to this conclusion because there was no finding of dramatic increase in persistence or increased time at the machines and, quite appropriately, because of the real potential for further gambling harm by the evidence that some participants did gamble longer as a result of machine modifications. We consider the reviewers dismissed this measure as useful because there was no dramatic increase in duration of gambling, and not because of the potential harm for some who will increase time gambling. We conclude this because of the absence of any discussion of the possible harm associated with reduction of reel spin in their review of the USGRU studies. It is only in relation to the CIE report that they point out the possibility of modifications, unspecified, causing gambling harm. Again it appears the reviewers use these and other concerns to support their position in regard to the CIE report but ignore these same concerns in relation to the USGRU report.

Our view is that any conclusions drawn from the study, because of the limitations described, must be treated with caution. We consider there are, logical rationales and some indications in the studies, that slowing of reel spin on all machines in all venues potentially results in at least some players gambling longer, leading to gambling harm. Duration of gambling session is a likely factor in the development of gambling harm (Dickerson, M., Haw, J., and L. Shepherd, 2003). We must carefully consider, any proposed harm minimisation strategy, which is likely to increase duration of play. This is clearly understood by the researchers who state, “In conclusion, on the basis of this study, there is very weak evidence to suggest that slowing down the reel spins of electronic gaming machines may help a small proportion of problem gamblers, but there is evidence of potential unintended negative consequences, specifically that it may simply extend the period of play for a cohort of individuals” (USGRU, p 67). The reviewers do accurately restate this conclusion in their review of Study 2. Instead of stating the researchers’ said, “there is evidence of potential unintended consequences”, they wrote “conversely it may have unintended negative consequences” (Auckland UniServices Limited, p 55). The reviewers criticise the authors’ comment “...may help a small proportion of problem gamblers” as not sufficiently acknowledging that even a small benefit is worthwhile. They state, “The comment, “...may help a small portion of problem gamblers” perhaps is good enough evidence as far as harm minimisation is concerned in the same manner that “installing a locked gate around a swimming pool” might only save a small number of children from drowning.” (Auckland UniServices Limited, p 32). We cannot agree that the standard of certainty should be diminished in the area of harm minimisation. While one can agree with implementing harm minimisation measures that help even a few gamblers, we must also be careful not to legislate untested life vests and drown more children than we save. The reviewers admonish the researchers for not being positive enough about the possible benefit of this modification but then conclude in their Executive Summary, “The reel spin modification does not appear, at this stage, to be an effective harm minimisation strategy.” (Auckland UniServices Limited, p 6). To

then ignore the evidence of the potential harm of the measure, which is not acknowledged anywhere in the reviewers' own work, is a serious omission.

The possibility of added harm due to slower reel spin is well understood by the researchers, but ignored by the reviewers. The researchers clearly make this point, "It was the participants who gambled more slowly who were likely to play for longer. Indeed, speed of play accounted for 12% of the variance in persistence on its own. This is an important finding because it suggests that if one were to slow down the speed with which the wager cycles were played, players might simply play for longer. This suggests that slowing down the speed of games might actually increase the harm associated with gambling because the gambler would remain at the machines longer. Further research is required to clarify this point." (USGRU, p 65) Indeed the researchers' report that reduced reel spin did increase time on machines by 2.7 minutes, though this difference was not statistically significant (USGRU, p 57). It should be noted that the players on \$1 maximum bet machines, only spent an average of 4.6 minutes less on these machines and this was statically significant. It is well to note that this is the difference that leads the reviewers to make such a strong conclusion on the efficacy of reducing bet maximum size.

3.4 Number of Problem gamblers club/hotel.

The authors found that more problem gamblers were found within the hotel sample (USGRU, p 56).

This and conclusions based on this finding must be treated with extreme caution as:

- Two hotels withdrew from the study after five days of participation
- Of the 779 participants, the South Oaks Gambling Screen was only available from 634 participants, further biasing the sample.
- There are no described protocols to establish standardisation into the recruitment process.
- The acknowledged differential effect of recruitment on recreational and problem gamblers is potentially great. The configuration of machines in the hotels was dramatically different to those of the clubs. Hotels had one modified machine along side another unmodified machine in the gaming room. There were signs indicating the study was in place and the machines were labelled as experimental. In clubs there were 8 machines in each venue, the location chosen by the Club Manager but not described. In study 1, these machines were roped off and presumably this was also the case in Study 2. Two research assistants were allocated to each hotel and 4 to each club. To a visiting gambler the situations could not appear more different. It is likely that in the more naturalistic setting of the hotel, problem gamblers were more likely to agree to participate. In the club with a large bank of labelled experimental machines and 4 researchers hovering, it is more likely problem gamblers wished to avoid the study to get on with their gambling on real machines. Evidence of this is presented in USGRU Study 3, where all 18 problem gamblers avoided all "pirates" machines for the duration of the study (USGRU, p78). One could list further reasons for the skew, but suffice to say there are too many uncontrolled variables to lend any credence to the results.

3.4.1 Max Bets

Of n = 497 participants from whom data was available, 3.5% placed maximum bets of an amount greater than \$1. The report does not say, but presumably “placed maximum bets” means on the machines that would accept them, and there were likely other participants who attempted to place such bets on restricted machines and were not able. It was not possible for the 96.5% or 479 of the remaining participants to be aware of bet restrictions, and any effect of such modification is not possible. This being so, it is quite possible that the few gamblers who attempted to make larger bets on restricted machines, immediately ceased play on those machines and conceivably sought another, which would accept larger bets. Quite possibly several modified machines may have been encountered and recorded dramatically short play duration before the gambler encountered an unmodified machine or decided to abandon the study to play in the gaming room proper. It is likely this effect was greater on problem gamblers than non-problem gamblers. It is also likely that players perceived the machines to be broken and avoided them. The researchers acknowledged this possibility (USGRU, p 77). It is possible that the known superstitious nature of some gamblers may have led them to avoid these machines as being unlucky. The relatively few gamblers who become aware of the max bet restriction, which is not to their liking, could easily skew the results of the large proportion of participants who had no awareness that the machine was modified. If this scenario did occur, it would easily account for the relatively small reduction in duration of play on max bet restricted machines of 4.6 minutes.

Table 5 (USGRU, p 59), shows problem gamblers spent an average of 41.6 minutes gambling and recreational gamblers spent an average of 28.8 minutes. The relative effect of problem gamblers, who were observed to gamble for longer durations than recreational gamblers, were likely to skew the distribution of results if they were more likely to cut short their gambling session on modified machines. The difference between recreational and problem gamblers in terms of number of machines played does not support this, although it is possible that recreational gamblers changed machines as a demand characteristic of the experimental situation and problem gamblers did so to find higher bet machines. The recreational gambler would not change the duration of play on the basis of encountered differences in machines but rather “try out” different machines to assist the researchers. Problem gambler would likely spend a short time on restricted bet machines because they sought unrestricted ones.

Study 1, investigates machine modifications on satisfaction ratings of participants. It was reported that only 1 of more than 300 participants who took part in this study was able to identify the maximum bet modification (USGRU, p 52). The authors themselves appear disturbed by this fact and say “Maximum bet did affect satisfaction and enjoyment in some analyses, although the results are somewhat complex and difficult to interpret, particularly in light of the finding that only 1 in more than 300.... was able to identify this modification.” The authors expressed similar concerns about modification to note acceptors (USGRU, p 53). The authors continue to be quite descriptive and specific in describing the findings regarding satisfaction differentials between clubs and hotels and between recreational and problem gamblers (USGRU, p

53). This is despite the interview evidence of the inability of participants to identify what the modification were, and given the observed evidence, from Study 2, that few participants had the opportunity to encounter a bet restriction, because so few placed bets larger than \$1. Strangely, this does not seem to have caused them to question the reliability or validity of their data. Presumably, the participants in Study 2 were similarly not able to notice the bet modification in that study. Little is made of this disturbing finding by either the researchers or the reviewers.

An analysis by gambling status revealed that 2.3% of recreational versus 7.5% of pathological gamblers placed bets greater than \$1. Of the total sample of 634 who completed the SOGS, 20% obtained a score of 5 or more. The authors report that 7.5% of the problem gamblers, which represented 20% of the total sample, bet above the \$1 level (USGRU, p 10). 7.5% of the problem gamblers in Study 2, for whom data was available on max bet size, represents 7 problem gamblers. Only 17 of the 497 participants placed maximum bets of greater than \$1. How many of the participants who played limited bet machines attempted to place bets of greater than \$1, and were thwarted by the button being inoperable? Having encountered a button that did not work, how many of the players ceased play and left the machine to play on another machine in the bank of experimental machines, or left the venue, or went to play in the gaming room proper? In the discussion of Study 3 on expenditure, the authors recognize this issue, stating, “The remaining buttons, while still physically present, were inoperable. Thus, *players may have avoided these machines since they may have appeared to be defective with some buttons not operating* “(USGRU, p 77, italics added).

Given that a participant, playing a machine restricted to \$1 and never attempted to make a bet greater than \$1, how could that player know they were playing a bet-restricted machine? How could the effect of that restriction ever become evident to the player and how could such a restriction possibly affect play? Either there can be no effect of restricting max bet size, or participants must have attempted to bet higher and encountered inoperable buttons.

When asked, participants were not able to identify what modifications were made to the machines. Given this is the case, it would not be possible for player behaviour to be altered by max bet restrictions if this was not evident to the player. It is not clear how many participants successfully and unsuccessfully placed bets. These were behaviours readily observable by the researchers, but are not recorded.

Minimum player return is legislated at 85%. The modified and unmodified machines were set at 90%. It is not stated that the participants were informed that this was the case. If so, this may explain why participants played longer at the machines, and introduces another uncontrolled variable. That someone may argue this effect would remain constant on each type of machine, and the data regarding modifications is still valid, is an assumption that would need to be empirically established and does nothing to assist the usefulness of the results or conclusions of this study, and application to the real gambling situation.

Data from USGRU Study 3, derived by the Turbo system provides some intriguing results. The researchers conclude there is no evidence that problem gamblers avoided modified machines more than non-problem gamblers. The results certainly confirm

this, but *what the researchers did not say was that gamblers with SOGS scores of 5 or more, spent 5 times the duration on modified machines.* In a one-week period, unmodified machines were played for 1354 minutes and modified machines were played for 1700 minutes (USGRU, Table 12, p 75). Presumably, the data for both sets is derived from all 522 players. Given there were 522 players who played those machines, the average time spent on modified machines is 3.25 minutes and 2.59 minutes on unmodified machines. Table 13 presenting data of these gamblers on all machines played in the venue, confirms they spend about 3 minutes on a machine. In Study 2, participants played for an average of 31 minutes, on an average of just over 2 machines. One must also question the results of study 2 given the average time spent by gamblers (3 minutes) in the more naturalistic setting of Study 3 is less than the difference (4.6 minutes) in the time spent between modified and unmodified machines in Study 2. Clearly the players in Study 2 spent considerably more time at each machine than they do in gambling venues proper. The two data sets are clearly different distributions and the gambling behaviour of participants in Study 2 cannot be representative of normal gambling behaviour.

3.4.2 Further inconsistencies within the review

Section 3.3.1 provides revealing statements by the reviewers about their concerns regarding reduction of maximum bet and slower reel speed as potential causes of gambling harm. This is in contrast to their conclusions on the effect of machine modifications in regard to maximum bet size in the USGRU report, which is strong and positive with no qualification. In contrast, their critique of the CIE report, the reviewers provide several reasons why we need caution in extrapolating from choice situations, as in the studies to the real situation of no choice in venues. The first reason considered by the reviewers is the substitution to other machines, saying, “If only some of the machines are replaced, then people may substitute away from those machines with modifications towards the other machines.” They go on to amplify this point but appear to minimize the concern of the authors of the USGRU report by saying, “This aspect in fact has been acknowledged and briefly discussed in the USGRU Report”. The reviewers go on to suggest in response to the CIE report that people may extend the time they play as a result of modification and this will have an impact on revenue. This assists them to argue the revenue losses will not be as great, and supports their conclusion, that the CIE authors have overestimated these losses. However, to do this the reviewers must accept that the extra time spent gambling, “may have negative impact such as additional time away from home or employment” (Auckland UniServices Limited, p 25) To accept this and use this to support their conclusions on revenue implications, directly contradicts their unequivocal conclusion in regard to the USGRU report which implies that bet modification and reel spin do not lead to more time at machines.

In 5.3 Implications for Enjoyment and Satisfaction for Players, the reviewers state, “It has not been possible to derive any specific conclusions in these two important psychological constructs “ because they “were measured exclusively by two single items on a previously “unvalidated” questionnaire.” In Appendix D, the reviewers make a number of conclusions that do differentiate levels of enjoyment and satisfaction; this is despite their statement in 5.3, or the major unexplained difficulty, for both the researchers and reviewers, that participants were largely unable to recognize any modifications of the machines. In the case of restricted bet size, only 1

of more than 300 participants recognized the modification. The reviewers state quite clearly in 5.3, that it is not possible to derive specific conclusions but then make quite differentiated conclusions about both satisfaction and enjoyment in regard to bet size, despite participants not being able to recognize the modification.

3.5 Duration of play and the development of gambling harm

Elsewhere in our submission we have pointed out the concerns of the authors of the USGRU report to the possibility of increased time on machines as a result of machine modifications. The reviewers themselves also discuss this possibility. The researchers however fail to adequately describe the major failure path to gambling harm from this effect. They consider if gamblers do increase the time they spend gambling, because of machine modifications, they would not necessarily spend more time at the venue because the increased time gambling could be absorbed in the overall time spent in venues by the substitution from other non-gambling activities. They do however admit that for those gamblers who go to venues for the specific purpose of gambling, the modifications will increase time at venues (USGRU, p 67). *The factor the researchers and the reviewers give focus to, is length of time at the venue. Dickerson, et al, make a strong case that it is the duration of play, leading to impaired control, which results in gambling harm.*

3.6 Conclusion

Our conclusion is that the authors of the USGRU report had more than enough justification to qualify their conclusions in the way they did, but still gave the findings too much credence. Further, it is the reviewers who have not taken full account of the serious methodological weaknesses in the studies, nor their own serious concerns about the ability to extrapolate the findings to the real gambling no choice situation. They have used their concern about extrapolating the findings to criticize the findings of the CIE report but fail to level the same criticism to the USGRU report or their own conclusions to the report. We are led to the view that the reviewers have not heeded the limitations of the reports, the qualifications made by the researchers or their own. They have selectively emphasized concerns that support their own conclusions that machine modifications will assist problem gamblers, and the revenue consequences are overestimated. Given that the reviewers listed and described many serious limitations of the studies it is difficult to see how they then arrived at these conclusions.

4. Venue Shutdowns

Comments imbedded in Executive Summary

5. The Psychological Causes of Problem Gambling

Comments imbedded in Executive Summary

6. References

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