Research Brief

Conducting survey research using inmate digital tablets: Are respondents representative of the inmate population?

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AIMS The study aimed to develop an understanding of the extent to which inmates who respond to surveys delivered via digital tablet devices are representative of the overall population of inmates. Specifically, it compared the characteristics of inmates who responded to a large-scale survey of inmates in New South Wales correctional centres with those who did not, to identify over- or underrepresented groups and explore factors associated with survey participation.

FINDINGS

AND

CONCLUSIONS

A quantitative cohort comparison was conducted using data from a semi-annual inmate survey administered via digital tablets in October 2024. Respondents (n=2,774) and non-respondents (n=6,098) were compared across demographic, custodial, educational, and health-related variables sourced from administrative records. Statistical analyses included chi-square tests, t-tests, and non-parametric equivalents to assess differences in representation.

A number of key groups were found to be represented in the survey sample in proportion to their prevalence in the inmate population. These included Aboriginal inmates and those on remand, inmates with disabilities, mental health conditions, or addiction issues, and women who have children under the age of 18. However, some significant differences were found between the respondent and non-respondent cohorts. Women, middle-aged inmates (36-45), and those with higher educational attainment or stronger literacy and numeracy skills were overrepresented among respondents. Conversely, men, inmates aged 66 and over, those from culturally and linguistically diverse (CALD) backgrounds, and those with limited English proficiency or lower education levels were underrepresented.

We concluded that tablet-based surveys offer a promising method for collecting data from incarcerated populations, with generally broad representation. Our analysis suggests that the characteristics over- and underrepresented among respondents are not specific to the novel modality of the survey, but rather similar to surveys in other contexts. However, the study also suggests that surveys utilising such a research method could benefit from targeted interventions to address variability in representation among different groups and improve engagement with the survey, particularly for those with language and literacy barriers. We also point out that the features of digital tablets could offer unique opportunities to address these issues in ways that are otherwise not possible in other survey modalities.

INTRODUCTION

Since October 2020, Corrective Services NSW (CSNSW) has made digital tablet devices available to inmates in New South Wales (NSW) correctional centres, providing them with access to a variety of important communication, entertainment, and information features while they are housed in their cells. The tablets are mid-sized Android-based touchscreen digital devices, configured for limited internet access via secure Wi-Fi, with commonly used functions including direct phone calls to registered contacts and submitting administrative requests and applications (Thaler et. al., 2022). The tablets also enable inmates to access selected webpages, including news and entertainment sites.

CSNSW has used the tablets to deliver surveys to inmates for research and evaluation purposes, enabling access via whitelisted web pages (Barkworth et. al., 2022; Thaler et. al., 2023). These surveys have been used to assess inmate experiences of a variety of different aspects of their life in custody, including perceptions of correctional centre safety and social climate, as well as levels of connection with family and friends in the community (e.g. Barkworth et. al., 2022; Barkworth et. al., 2024). Although these studies generally found widespread and extensive use of tablets within NSW correctional centres, they also identified inmate characteristics associated with differences in overall levels of use of the tablets. These include between inmates with different levels of experience with technology and between male and female inmates (Barkworth et al., 2022; Thaler et al., 2022), which may have an impact on rates of responding to surveys administered through tablets.

While the application of novel research modalities such as tablet-based inmate surveys presents a unique opportunity to improve the efficiency and breadth of data collection from the overall inmate population and vulnerable populations that has previously been difficult to access (Sutton, 2011; Thaler et al., 2023), the use of such methods raises methodological questions about the quality and representativeness of collected data. As highlighted by Bethlehem (2010), the methods used to obtain survey data, and their unique characteristics, can have a substantial impact on the representation of different groups within the overall survey population. In this case, a potential example is that display limitations of the devices, as described by a previous review of tablet use by Thaler et al. (2023), could limit the interest or ability of inmates who are visually impaired or have limited English literacy to complete the survey on the device. In aggregate, this may correspond with diminished representation of people with these characteristics in samples of survey respondents.

Significant differences between the characteristics of respondent and non-respondent cohorts can substantially hinder the ability to generalise results from a survey sample to the population it covers as it can create meaningful differences between the two (Wilcox et al., 1994). Zhao (2020) points out that systematic underrepresentation of particular respondent characteristics raises the risk of overlooking issues important to populations that may be more difficult to access, particularly vulnerable groups.

AIMS

A previous study reviewing the experience of conducting surveys using the digital tablets noted effective inmate engagement with the studies and high-quality data, but did not examine the differences between respondents and non-respondents or the inmate characteristics associated with differences in likelihood of responding (Thaler et al., 2023). The current study therefore aimed to examine the characteristics of a sample of inmates who responded to a large-scale survey delivered via digital tablets, and how these compared to the corresponding cohort of inmates who had the opportunity but did not respond to the survey.

By doing so, this study aims to provide future researchers with insights about the representativeness of data collected through inmate surveys using digital tablet devices, and the extent to which the views of priority groups, such as people with mental health challenges, are represented in survey findings. Through

this, the study can also identify groups that are over- or underrepresented among tablet-survey respondents, as well as explore potential factors that could impact the likelihood of responding among inmates. By extension, this study also seeks to identify the inmate groups that would be most amenable to participating in a tablet-based survey, and those that could benefit from targeted interventions or alternate research methods to improve accessibility and engagement.

METHODS

The study involved a quantitative comparison of the commonality of various characteristics among respondents and non-respondents to a survey. The survey used was one round of a semi-annual survey of inmates conducted by CSNSW as part of organisational improvement practices. The survey is delivered to all inmates in NSW correctional centres where digital tablets are available and is composed of 42 items across four psychometric measures, addressing constructs related to perceptions of correctional climate in addition to relevant outcomes such as experiences of wellbeing in custody.

The specific survey used for this study was delivered in October 2024. The survey was open to inmates for a period of three weeks. After the end of the survey period, responses that did not include meaningful data, or that met diagnostic criteria for careless responding¹, were excluded.

To ensure comparability across the respondent and non-respondent cohorts, both cohorts match the following criteria:

- housed in a correctional centre where inmates have access to CSNSW digital tablets
- in custody on the day of the survey launch
- not released or moved to another correctional centre at any point during the survey period.

Such criteria are important to ensuring that exploration of differences between the cohorts were not confounded by logistical issues that could have limited some inmates' opportunity or ability to respond to the survey. Of the inmates who met these criteria (N=8872), 2774 responded to the survey and were included in the respondent cohort for this study (n=2774). The remaining individuals, who did not respond to the survey, were included in the non-respondent cohort (n=6098).

Inmate data

Relevant inmate data was obtained from the Offender Integrated Management System (OIMS). This includes routine administrative and sentencing information, as well as specific details from assessments delivered as part of case management. One such assessment is the Level of Service Inventory – Revised (LSI-R) which estimates individuals' risk of reoffending based on an assessment of various criminogenic characteristics and needs (Andrews & Bonta, 1995). Inmate characteristics were also obtained from the Intake Screening Questionnaire (ISQ), a CSNSW tool administered to all inmates newly received into CSNSW custody to identify their unique needs and the supports from which they might benefit. Information about inmates' education and skills was obtained via the Core Skills Assessment (CSA), based on the Australian Core Skills Framework (ACSF) (DEWR, 2012). The CSA is used within CSNSW primarily to assess the abilities of inmates for the purpose of presenting them with educational and work opportunities². Sourced data relates to all participating inmates as at the launch date of the survey (23/9/2024). Inmate data used in the analysis,

¹ Survey responses where the respondent did not show due care in reading and considering the question/item are commonly seen as misrepresenting their true views/levels, impacting the quality of data and analytical results (Meade & Craig, 2012). We use a combination of three common methods for identifying likely careless responding via response speed, internal invariance and multivariate outlier status (Huang et al., 2012; Niessen et. al., 2016).

² https://correctiveservices.dcj.nsw.gov.au/documents/programs/compendium-of-assessments.pdf

outlined in Table 1, can be divided into four categories: demographics, custody and sentencing details, education and skills, and disability and mental health.

Table 1. Inmate data sourced from OIMS

Category	Variable meaning/purpose
Demographics	Inmate Sex
	Inmate's primary language is English
	Inmate CALD Status
	Inmate Aboriginal status
	Inmate's Marital status (at last intake)
	Age of inmate on survey launch date
	Inmate parental status (child under 18)
Custody and sentencing details	Legal status (i.e. Remand or Sentenced)
	Security level of current unit
	Time spent in custody in current centre (Days)
	Time spent in custody during current episode (Days)
	Time spent in custody over lifetime (Days)
	Days until Earliest Possible Release Date (EPRD)
Education and skills	Inmate's highest completed level of education
	Assessed skills – Reading
	Assessed skills – Numeracy
Disability and mental health	Inmate has disability - intellectual
	Inmate has disability - mental health
	Inmate engaged in an incident of self-harm (threatened, assessed or actual) $^{\scriptscriptstyle 3}$
	Inmate has current alcohol problem
	Inmate has current drug problem

Inmate age and sex were included as they were previously identified as factors affecting responding to surveys (e.g. Korkeila et al., 2001; Porter & Umbach, 2006) and overall use of digital tablets (e.g. Barkworth et al., 2022, Thaler et al., 2022). Variables covering inmates' heritage and language were included to examine the representation of vulnerable groups such as Aboriginal⁴ inmates and inmates from Culturally and Linguistically Diverse (CALD)⁵ backgrounds. As individuals' cultural background could have a bearing on responding to the survey through both cultural and linguistic mechanisms, we examined two interconnected variables covering both issues. These were whether the individual was identified as having a CALD background and whether their primary spoken language was not English.

Women in custody who have children under the age of 18 have previously been identified as a vulnerable group with particularly complex needs (Flynn, 2013; Lobo & Howard, 2021). In line with the aim of this study to assess the extent to which the voices of vulnerable/priority groups are represented in data collected via tablet-based inmate surveys, inmates' parental status was included in the analysis. To assess the comparative impact between men and women in this category, both groups were analysed separately in relation to their representation among the respondent cohort.

³ Variables covering all three types were aggregated into a single variable to enable recognition of all possible self-harm incidents in the analysis.

⁴ For the purposes of this report, we use the term 'Aboriginal' to refer to all First Nations Australians including Aboriginal and Torres Strait Islander peoples.

⁵ Defined as having a first language other than English, having a non-English speaking country of birth, and having a non-English-speaking culture. Aboriginal Australians are not included in this group.

Variables related to inmates' time and placement in custody were included in the analysis to examine the possibility that time in custody, whether historical, current, or expected, impacted inmates' engagement with the survey. Inmates' education and skills were considered to determine if inmates' ability to read and engage with the survey could impact their ability and interest in completing the survey (Bauer et al., 2025).

Similar considerations led to the inclusion of variables related to inmate disability and mental health. Previous research suggests that people with poor mental health or mental disorders are more likely to show suspicion and discomfort with surveys, and less likely to complete them (Perales & Baffour, 2018).

Data analysis

Analyses conducted in this study focused on assessing whether there were significant differences in the distribution of selected characteristics between the respondent and non-respondent groups. Given that the respondent and non-respondent groups collectively represent the effective population of people in prison who were eligible to complete the survey, we interpret imbalance between groups as indicative of differential representation of that characteristic in the respondent sample. To this end, we describe significantly increased prevalence of a given characteristic in the respondent sample relative to the non-respondent group as evidence of overrepresentation, and decreased prevalence as evidence of underrepresentation.

To assess the significance of differences in the distributions, we conducted appropriate statistical tests for each factor/variable against the 'response status' variable. All categorical variables were assessed using Chi-Square test of independence, with adjusted residuals used to identify the extent of over- or underrepresentation among survey respondents in particular subgroups. Where a variable is ordinal, linear-by-linear association analysis was used to identify any significant linear trends across categories with the survey response rates. Associations with continuous variables were assessed using independent sample t-tests, with non-parametric tests (Mann-Whitney U) replacing where assumptions of normality were not met.

FINDINGS

Demographics

As outlined in Table 2, men in NSW correctional centres were found to be significantly underrepresented among the respondent cohort for the inmate survey (90.4% vs 94.5%, X^2 = 49.768, p < .001). That is, the distributions of men and women across groups indicated that respondents were less likely to be men compared to non-respondents.

Considering the age of inmates, we did not find a continuous linear relationship between age and likelihood of being in the respondent group ($t = 1.010 \ p = .313$). Specific age-groups, however, were found to have a significant non-linear association with responding, associated with both under- and overrepresentation of different groups ($X^2 = 25.367$, p < .001). Inmates aged 66 and over were identified as significantly underrepresented among the respondent cohort (4.1% vs 6.0%, adjusted residual = -3.7, p < .001). Middle-aged inmates, between the ages of 36 and 45, however, were significantly overrepresented among the respondent cohort (29.7% vs 26.4%, adjusted residual = 3.2, p = .001). Other age brackets were found to be similarly represented across the different cohorts. Inmates' marital status was not found to be associated with differences in likelihood of responding ($X^2 = 3.617$, p = .306).

CALD individuals were underrepresented among the respondent cohort (25.7% vs 28.3%, X^2 = 68.835, p < .001). Additionally, inmates whose primary language was not English were significantly underrepresented among the respondent cohort (9.4% vs 15.8%, X^2 = 66.410, p < .001). Aboriginal inmates, however, were found to be similarly represented among both the respondent and non-respondent cohorts (31.3% vs 31.5%, X^2 = 0.023, p = .879).

Table 2. Representation of demographic factors among the respondent and non-respondent cohorts

Factor	Group	Responded		Not responded	
		N	%	N	%
Sex***	Male	2509	90.4	5761	94.5
	Female	265	9.6	335	5.5
Inmate Age***	18-25	303	10.9	750	12.3
	26-35	886	31.9	2009	32.9
	36-45**	824	29.7	1612	26.4
	46-55	452	16.3	934	15.3
	56-65	196	7.1	427	7.0
	66+***	113	4.1	366	6.0
Marital Status	Never Married	1611	59.7	3587	60.5
	Married/De-Facto	904	33.5	1999	33.7
	Divorced	106	3.9	200	3.4
	Separated but not divorced	77	2.9	140	2.4
CALD Status***	Inmate is CALD	2278	25.7	1724	28.3
	Inmate in not CALD	6594	74.3	4374	71.7
Primary language is English***	Inmate primary language is English	2510	90.6	5097	84.2
	Inmate primary language is not English	260	9.4	959	15.8
Aboriginal status	Aboriginal	867	31.3	1901	31.5
	Non-Aboriginal	1901	68.7	4137	68.5

^{***}p<.001 **p<.01

In recognition of differences between the experiences and characteristics of men and women in custody, as well as agency identification of women with children as a priority group, we split the cohort of inmates who have children under the age of 18 by sex and assessed their representation in the survey sample. As demonstrated in Table 3, we found that men with children were overrepresented among the respondent cohort compared to men without children (40.3% vs 37.9%, $X^2 = 4.460$, p = .035). Conversely, women with and without children showed no significant difference in responding (41.9% vs 35.5%, $X^2 = 2.535$., p = .111).

Table 3. Representation of inmate parental status, with additional division by sex

Factor	Group	Responded		Not responded	
		N	%	N	%
Parental status – Female inmates	Women with children (U18)	111	41.9	119	35.5
	Women without children (U18)	154	58.1	216	64.5
Parental status – Male inmates*	Men with children (U18)	1012	40.3	2182	37.9
	Men without children (U18)	1497	59.7	3579	62.1

^{***}p<.001 *p<.05

Custody and sentencing details

As illustrated in Table 4 and 5, several aspects of inmate sentencing and placement were found to be associated with differences in an individual's likelihood of responding to the survey. Inmate unit security classification was identified as associated with likelihood of responding but not in a direct linear way (X^2 =17.492, p<.001, Linear-by-linear association = 1.470, p = .225). The main difference was between inmates in minimum security units, who were significantly underrepresented among respondents (26.9% vs 29.8%, adjusted residual = -2.8, p = .005) and those in medium security units, who were overrepresented (22.3% vs 18.7%, adjusted residual = 3.8, p < .001). Inmates in maximum security units were evenly represented among the respondent

and non-respondent cohorts (54.3% vs 55%, adjusted residual = -.4, p = .689). No significant difference was identified between the respondent and non-respondent cohorts among sentenced and remand inmates (Sentenced: 61.5% vs 62.1%, X^2 = .248, p = .619).

Table 4. Representation of factors relating to sentencing characteristics in the respondent and non-respondent cohorts

Factor	Group	Respo	Responded		ponded
		N	%	N	%
Legal Status	Remand	1068	38.5	2314	37.9
	Sentenced	1706	61.5	3784	62.1
Unit Security***	Minimum Security**	745	26.9	1810	29.8
	Medium Security***	590	21.3	1085	17.8
	Maximum security	1439	51.9	3184	52.4

***p<.001

In examining different measures of inmates' time in prison, only inmates' days left until their EPRD⁶ was associated with differences in representation. Inmates who responded to the survey on average had significantly longer time left on their sentences than those who did not (678 days vs 571.7 days, Z = -2.879, p = .004). Inmates' time spent in the current centre where they were housed was not identified as significantly associated with responding (Z = -1.880, p = .060) nor was their total time spent in custody during the current episode of incarceration (Z = -1.092, p = .275). Inmates' overall time in custody over the course of their lives was also not associated with responding to the survey (Z = -.312, p = .755).

Table 5. Factors relating to time in prison for inmates in the respondent and non-respondent cohorts

Factor	Respo	onded	Not responded		
	М	SD	М	SD	
Time in current centre (days)	700.2	1250.0	730.64	1244.8	
Time in custody during current episode (days)	215.0	342.3	202.1	325.6	
Time in custody during life (days)	1376.07	1537.2	1348.50	1480.8	
Days until Earliest Possible Date of Release**	678.0	1191.0	571.7	1066.9	

^{**}p<.01

Education and skills

An examination of factors related to the skills and education of inmates suggested that those with limited levels of education and lower assessed skills were underrepresented among the respondent cohort. Tests noted in Table 6 showed a significant relationship between level of education attained and response status ($X^2 = 22.601$, p < .001, Linear-by-linear association = 10.463, p = .001), with those who only completed less than Year 10 significantly underrepresented (22.4% vs 27.4%, adjusted residual = -4.5. p < .001) and those who completed Years 10-12 significantly overrepresented (54.3% vs 50.9%, adjusted residual = 2.6, p = .009). Those with post-school qualifications (e.g. TAFE or University degrees) or no schooling at all were found to be equally represented in the respondent and non-respondent cohorts.

⁶ Sentenced inmates only

Table 6. Representation of inmate education levels among respondent and non-respondent cohorts

Factor	Group	Responded		Not responded	
	•	N	%	N	%
Highest completed education level**	No Schooling	62	2.8	139	2.9
	School - Year 9 or under***	503	22.4	1297	27.4
	School - Year 10-12**	1221	54.3	2408	50.9
	TAFE/Vocational	431	19.2	828	17.5
	University - Bachelor or under	28	1.2	53	1.1
	University – Postgraduate	5	0.2	5	0.1

^{***}p<.001 **p<.01

Skills assessed as part of the Core Skills Assessment were also identified as significantly associated with likelihood of responding. Table 7 demonstrates that inmates with an assessed Reading level of two or below (out of five)⁷ were significantly underrepresented among the respondent cohort (43.0% vs 54.2%, χ^2 = 59.962, p < .001). This was also the case for assessed Numeracy level (53.2% vs 64.6%, χ^2 = 65.476, p < .001), using a similar scale.

Table 7. Representation of inmate assessed reading and numeracy levels among respondent and non-respondent cohorts

Factor	Group	Resp	Responded		ponded
		N	%	N	%
Reading Level***	Low score	766	43.0	1945	54.2
	High score	1017	57.0	1645	45.8
Numeracy Level***	Low score	945	53.2	2327	64.6
	High score	832	46.8	1274	35.4

^{***}p<.001

Disability and mental health

None of the examined factors related to inmate disability and mental health, shown in Table 8 and 9, were found to be significantly associated with likelihood of responding to the survey. Inmates with identified disabilities demonstrated very small, non-significant, differences in their representation among the respondent and non-respondent cohorts (Intellectual Disability $\chi^2 = 3.080$, p = .079; Mental Health $\chi^2 = 0.014$, p = .90). This was also the case for those who had self-harm incidents ($\chi^2 = 2.249$, p = .134).

Table 8. Representation of inmate disabilities among respondent and non-respondent cohorts

Factor	Group	Responded		Not responded	
		N	%	N	%
Disability – Intellectual	Has Intellectual Disability	163	5.9	163	6.9
	No Intellectual Disability	2611	94.1	2611	93.1
Disability – Mental Health	Has Mental Health Condition	370	13.3	819	13.4
	No Mental Health Condition	2404	86.7	5279	86.6
Self-harm incident	Self-harm incident	853	39.6	1798	37.9
	No Self-harm incident	1921	60.4	4300	62.1

Addiction issues, as shown in Table 9, were also not associated with differences in representation among the respondent cohort. Inmates assessed as having a recent or current addiction to alcohol were not significantly over-or underrepresented among survey respondents, and this was also the case for those

⁷ This threshold was used as it represents an important criterion for inmates' assessment as having an 'Education Responsivity Factor.'

assessed as having a recent or current drug addiction (Alcohol addiction χ^2 = 2.194, p = .139; Drug addiction χ^2 = 1.078, p = .299).

Table 9. Representation of inmate addiction history among respondent and non-respondent cohorts

Factor	Group	Responded		Not res	ponded
		N	%	N	%
Addiction (recent or current) - alcohol	No alcohol addiction	297	24.6	703	26.9
	Alcohol addiction	909	75.4	1911	73.1
Addiction (recent or current) – drug	No drug addiction	752	62.3	1676	64.0
	Drug addiction	455	37.7	941	36.0

CONCLUSIONS

This study examined characteristics of samples of inmates in NSW correctional centres who did and did not respond to a survey delivered via digital tablets to assess the extent to which this novel research modality can help researchers access respondents who are representative of the underlying population of people in prison. The study compared the distribution of characteristics among the respondent cohort against non-respondents, and identified characteristics found to be more prevalent as overrepresented and those less as underrepresented.

Specifically, this study examined variations in inmate demographics such as age, sex, and heritage, as well as custody and sentencing details such as inmates' legal status, unit security and time spent in custody. It also examined parental status, as well as differences in educational attainment and skills, and inmates' special needs relating to disability and mental health conditions.

In reviewing demographic factors, the study found an association between the sex of inmates and likelihood of responding, which accords with previous studies in other contexts that identified women as significantly overrepresented among the respondent cohort (e.g. Porter & Umbach, 2006). This also aligns, to some extent, with findings from previous research done within some of the same correctional centres in NSW. Barkworth et al. (2022) found that the survey response rate among inmates of a participating women's prison was substantially higher than that in the nearby men's prison where inmates were also invited to participate.

Several demographic and sentencing characteristics were identified as having significant, but mixed or non-linear, associations with responding. These include inmate age, where those aged 66 and over were identified as significantly underrepresented among the respondent cohort, while middle-aged inmates (aged 36-45) were significantly overrepresented. Previous research into factors associated with responding to surveys similarly found that older people were generally less likely to respond to surveys in comparison to middle-aged people, suggesting a variety of possible reasons, including age-related cognitive limitations and other health issues (Korkeila et al., 2001; Norton et al., 1994; Tennstedt et al., 1992).

Similarly significant but non-linear findings related to the security of units in which respondents were housed also highlight the importance of follow-up research into the preferences and motivations of inmates completing surveys. The significant underrepresentation of inmates housed in minimum security units raises the possibility that greater freedoms and activity options provided to inmates, as are often found in minimum security units, could impact their interest in spending time completing the survey. Fox et al. (2011) provides some support for this possibility, observing that inmates are less likely to participate in research activities when they are likely to interfere with other activities such as visitation or physical recreation. However, the dearth of detailed research into the motivations of inmates in relation to survey responding, and tablet-based surveys in particular, suggests that follow-up research and consultation with inmates could help further clarify the mechanisms affecting response patterns.

One possible, though perhaps unsurprising, mechanism affecting inmates' responding involves issues that are related to written surveys in general rather than unique to digital tablets. Our study identified several such characteristics, including poor English language skills and lower educational attainment, as associated with lower likelihood of responding. Previous research has found that limited ability in the language of the survey, as well as low levels of literacy and overall education, is associated with survey non-response and noncompletion (Bauer et al., 2025, Wenz et al., 2021). Martin et al. (2021) suggest that this is related to respondents avoiding surveys and questions that they see as presenting a heavier cognitive burden than they are able or willing to bear.

Beyond the groups over- and underrepresented among the respondent cohort, it is also important to highlight the factors found to have no significant association with response rates, identifying groups that were represented in proportion to their prevalence in the inmate population, particularly those of vulnerable people. These include Aboriginal inmates and those with identified disabilities (intellectual/mental health) and addictions (drugs/alcohol), as well as those on remand (and sentenced). No statistically significant difference was identified between the representation of female inmates with children and the representation of those without children among the respondent cohort. Noting such representation assists in clarifying the effectiveness of this novel survey method in capturing the voices of these groups.

Importantly, the study's findings did not match those of previous research examining inmates' overall use of the digital tablets in NSW Correctional Centres. This suggests that that groups overrepresented among the respondent cohort are not necessarily those who use the tablets more heavily, meaning that inmates' responding to the survey may not be simply a function of their overall use of the tablets. Most prominent among the differences is the underrepresentation of male inmates among the respondent cohort, which contrasts with the finding in Barkworth et al. (2022) that male inmates used the tablets more often and for longer. Furthermore, our finding that male inmates with children are overrepresented compared to men without children is also inconsistent with Barkworth et al. (2022), who found that having dependent children is not associated with variations in tablet use.

Although the study did not identify severe lack of representation in any particular group, one implication of the findings is the need to consider targeted interventions to boost survey participation among underrepresented groups. Our results suggest that simply increasing general tablet use among low-usage groups may not be enough to raise their survey participation. Instead, they suggest that interventions aimed at helping inmates having difficulty engaging with written surveys could be more impactful. Although not yet available in tablets used in NSW correctional centres, digital technology could in the future offer unique ways to do this that are practically impossible in some other survey methodologies. These include using text-to-speech conversion to help inmates with limited literacy and numeracy engage with survey text (Wood et al., 2018).

There are limitations to this study, which would, to some extent, affect the generalisability of the findings. Primarily, these relate to the limited number of surveys, contexts and inmate populations that could be examined due to the novelty of the delivery method and the limited implementation of similar technologies in other jurisdictions. The study examined the characteristics of respondents to one survey conducted at one timepoint, among inmates with access to digital tablets in one jurisdiction. The questionnaire covered specific topics and represented only one design approach. Due to these, the analysis cannot account for possible variations in responding over time or across different contexts, including differences in respondent interests and impacts of questionnaire design and survey model. Furthermore, the disparity in sizes between categories within some groups means that significant differences identified by statistical tests on small groups (e.g. inmates with no schooling, and those aged 66 and over) could be overstated.

Ultimately, this paper assists future researchers to clarify their expectations regarding the composition and representativeness of respondent samples to future surveys of inmates delivered via digital tablets, and to identify the inmate groups that are likely to be over- or underrepresented in such surveys. A clear understanding of such groups allows researchers to consider ways to improve their representation, either through analytical interventions such as reweighting, or through methodological interventions aimed at improving their interest and ability to complete the survey.

REFERENCES

- Andrews, D. A., & Bonta, J. (1995). Level of Supervision-Revised (LSI-R): An offender assessment system. User's guide. Toronto, ON: Multi-Health Systems
- Barkworth, J., Thaler, O., & Howard, M. (2022). *Implementing digital technologies in prisons: Inmate uptake and perceived value of in-cell digital tablets.* Sydney: Corrections, Research, Evaluation and Statistics
- Barkworth, J., Heinecke, K., Thaler, O., & Howard, M. (2024). *Implementing digital technologies in prison: Inmates' ongoing experiences of tablet access and connections with family and friends.* Sydney: Corrections, Research, Evaluation and Statistics
- Bauer, I., Kunz, T., & Gummer, T. (2025). Plain language in web questionnaires: effects on data quality and questionnaire evaluation. *International Journal of Social Research Methodology*, 28(1), 57–69.
- Department of Employment and Workplace Relations (DEWR). (2012). *Australian Core Skills Framework. Canberra: Commonwealth of Australia.* https://www.dewr.gov.au/skills-information-training-providers/australian-core-skills-framework
- Flynn, C. (2013). Mothers Facing Imprisonment: Arranging Care for Their Adolescent Children. *Women and Criminal Justice*, 23(1), 43–62.
- Fox, K., Zambrana, K., & Lane, J. (2011). Getting In (And Staying In) When Everyone Else Wants To Get Out: 10 Lessons Learned From Conducting Research With Inmates. *Journal of Criminal Justice Education*, 22(2), 304–327.
- Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and Deterring Insufficient Effort Responding to Surveys. *Journal of Business and Psychology*, 27(1), 99–114.
- Korkeila, K., Suominen, S., Ahvenainen, J., Ojanlatva, A., Rautava, P., Helenius, H., & Koskenvuo, & M. (2001). Non-response and related factors in a nation-wide health survey. *European Journal of Epidemiology*, 17, 991–999.
- Lobo, J., & Howard, M. (2021). Women in prison: An examination of the support needs of women in custody with children. Sydney: Corrections, Research, Evaluation and Statistics
- Meade, A. W., & Craig, S. B. (2012). Identifying Careless Responses in Survey Data. *Psychological Methods*, 17(3), 437–455.
- Niessen, A. S. M., Meijer, R. R., & Tendeiro, J. N. (2016). Detecting careless respondents in web-based questionnaires: Which method to use? *Journal of Research in Personality*, 63, 1–11.
- Norton, M. C., Breitner, J. C. S., Welsh, K. A., & Wyse, B. W. (1994). Characteristics of Nonresponders in A Community Survey of the Elderly. *Journal of the American Geriatrics Society*, 42(12), 1252–1256.
- Martin, S., Lechner, C., Kleinert, C., & Rammstedt, B. (2021). Literacy skills predict probability of refusal in follow-up wave: evidence from two longitudinal assessment surveys. *International Journal of Social Research Methodology*, 24(4), 413–428.
- Perales, F., & Baffour, B. (2018). Respondent mental health, mental disorders and survey interview out comes. Survey Research Methods, 12(2), 161–176.
- Porter, S. R., & Umbach, P. D. (2006). Student survey response rates across institutions: Why do they vary? *Research in Higher Education*, 47(2), 229–247.
- Sutton, J. (2011). An ethnographic account of doing survey research in prison: Descriptions, reflections, and suggestions from the field. *Qualitative Sociology Review*, 7(2), 45–63.
- Tennstedt, S. L., Dettling, U., & McKinlay, J. B. (1992). Refusal Rates in a Longitudinal Study of Older People: Implications for Field Methods. *Journal of Gerontology*, 47(6), S313–S318.
- Thaler, O., Barkworth, J., & Howard, M. (2022). *Implementing digital technologies in prisons: A qualitative study of inmate experiences*. Sydney: Corrections, Research, Evaluation and Statistics

- Thaler, O., Barkworth, J., & Howard, M. (2023). Conducting survey research using inmate digital tablets: Lessons learned from research conducted in NSW correctional centres. Sydney: Corrections, Research, Evaluation and Statistics
- Wenz, A., al Baghal, T., & Gaia, A. (2021). Language Proficiency Among Respondents: Implications for Data Quality in a Longitudinal Face-To-Face Survey. *Journal of Survey Statistics and Methodology*, 9(1), 73–93.
- Wilcox, J. B., Bellenger, D. N., & Rigdon, E. E. (1994). Assessing Sample Representativeness in Industrial Surveys. *Journal of Business & Industrial Marketing*, 9(2), 51–61.
- Wood, S. G., Moxley, J. H., Tighe, E. L., & Wagner, R. K. (2018). Does Use of Text-to-Speech and Related Read-Aloud Tools Improve Reading Comprehension for Students With Reading Disabilities? A Meta-Analysis. *Journal of Learning Disabilities*, 51(1), 73–84.

Zhao, K. (2021). Sample representation in the social sciences. Synthese, 198(10), 9097-9115.



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