# Sex differences of phone use in social situations 

## ASSIGN BUSTER


#### Abstract

In society women are given the stereotype of being on mobile phones more than men. The observation investigated whether females are more likely to be seen on their phone than men in a public place. Phone usage between sex difference was determined by which participant was on their phone more for over three minutes and numbers were collected and counted. A significant difference was found in phone usage between different sexes. Females were found to use their mobile phones more than men than was expected. This provides support from previous research that females are more likely to use their phones in a public setting.


Sex difference on phone use in a social situation

Research on the difference between sexes on phones has previously relied on reports from what people suggest or what they think by judging and stereotyping, making self-reported behaviour biased reducing the amount and range of behaviours that are studied at the same time. (Onnela, Waber, Pentland, Schnorf, \& Lazer, 2015).

Previous study" The MENTHAL project" (Andone et al., 2016)focused on how different age and sexes affect phone usage and studies where done over a 28 day period with selected participants, varying from ages of 16 onwards. This was longitudinal study using questionnaires with the same participants over a large scale. Data was collected from the same participants for more than one study.

Computers in Human Behaviour is another research project which focus on what they think is " acceptable etiquette"(Forgays, Hyman, \& Schreiber, 2014). This research focused on sex difference in age and focuses more on asked question through a survey. Data collected was done through asked questions on phone usage and what was thought to be socially accepted on phone use in public rather than through direct observation of usage through sex difference. It covers a large age group, varying from 18-68 years but data collected was done through opportunity selection of sex but not through direct observable behaviour.

The naturalistic observation will take part in Starbucks in a seated coffee shop in the Bridges shopping centre in city of Sunderland. The observation will use cross-sectional studies over a short period of time within a two-hour period. Three-minute intervals per couple or group of numbers of more than one person will be used to measure which sex used their phone more and numbers will be taken.

This study will involve random selection to make sure groups are as similar as possible and chosen fairly to remove any lurking variable that can have influence over the outcome of my research. Participants were chosen from an unknown sample of the public, leaving people to be assigned by chance not choice. This research also increases the chances of probability so that a source has equal chance which could differentiate the outcome. What my study will do different to the other studies is although other studies supported my hypothesis on ' woman use their phones more in social situations, appose to men' I wanted to collect my data fairy without being bias in anyway but knew the risk I was taking by making my study
opportunity by observational differences compared through sexes as it could alter and change each time if the study was done more than once, or at different times of the day but my research removed any variable of being done unfairly, there for I expect to see this pattern of results.

Method

Participants

Participants used in current study was taken from an opportunistic sample. Their where 47 participants in total. 13 of which were male and 34 females with a mean age of 11.75 and a standard deviation of 14.68 which was taken doing an observation with the public in a coffee shop in the city of Sunderland. All participantswere observed in a natural environment and undisturbed and unaware of my presence. Participants under the age of sixteen were excluded from this observation and single figures of the public who did not stay where also not counted in numbers.

Materials/procedure

Materials used in this study were very minimal. They were three students in total. Two of which took numbers of participants on their phones and the other one used a mobile device to time three-minute intervals per couple or group. Materials consisted of two sheets of paper for information on statistical numbers so that each student could do two copies to replicate and two pencils were uses to write the collected numbers down. All participants were measured with three-minute intervals, over two hours with no resting period from 2 pm till 4 pm .

## Design

In this current research, opportunity sample was used with participants through direct observation, so the sample size could not be predicted. The research was designed so that all participants had equal time and were measured in equal numbers with mixed sex. Between the subject factor was sex type, within subject factor was the participant who was on the phone or off phone. The participant on the phone or off the phone was the dependant variable and the independent variable was male or female. My dependant variable, was made as fair as possible so that my independent variable could not be manipulated so opportunity controlled any lurking variable which enabled the population to ensure an equal and fair trial.

## Discussion

The present study was designed to measure if sex type varied in the use of a mobile phone in social situations. This is providing the hypothesis by stereotyping that ' woman use their phones more in social situations, appose to men'. Further study in this area was done to investigate if high numbers would have replicated from the previous study that was conducted on sex type and phone use. Previous research did support my hypothesis, however other research that was gathered, used different methods, such as questionnaires with standardized questions over a longitudinal study. Data was collected from the same participants but not through chance making the variable bias.

[^0]collected from 30, 677 recorded participants, from which 16, 147 are males and 14,523 are females making the findings still to support my hypothesis however, that data could have been altered as the participant filled in a questionnaire, whereas my data was done through direct observation making the participant unknown to the fact they were being studied or observed so numbers could not be controlled.

Previous research's on" Computers in Human Behaviour"(Forgays et al., 2014), looked at sex difference on phone beliefs but not on numbers of sex difference in social situations, but more if sex thought it was appropriate to use a device in social situations. The findings from this result were interesting as it highlighted that more men found it acceptable to use a phone in a social situation. Although it did not support my hypothesis in any way as numbers were not given for overall sex use, therefor I wanted to extend my research further to pursue these findings over a shorter period and again eliminating any lurking variable as the previous data was collected by completing a survey.

Within this research, interest was paid to sex difference and relationships between the interpersonal motives of who uses their phone more, not like previous research where they had to be collected over a longer period, with several different areas being measured such as which apps where used or more popular between gender or which gender thought it was more acceptable to use a phone in a public place. Previous research was different as it was longitudinal, so evidence was not available straight away and involved repeated studies. Current research was collected by cross-sectional, so results will be obvious after 2 hours and only involved one observation.

Future research would be done to change limitations by counting single participants who came in to the coffee shop alone or participants who were having a takeout as these numbers where not counted and taking into consideration.

Another limitation to current research was the fact a coffee shop was used and not a bigger social situation as this could of given a larger sample to observe, although the numbers were significant with data and random a larger sample could have made a difference to the study and the overall findings.

Results

For this research, a chi square test was carried out to identify if woman use their phone more in social situations appose to men. Results from the chi square test show significant difference between phone usage and sexes although it was not a large amount with a $p$ value ofp>. 012. Reporting the results of a Pearson's chi square test $\times 2$
$(1)=6.313, p>.012$. Results from these findings showed although my findings supported my hypothesis, these results were not of a massive finding due to the sample size being small.

Standard residuals were used to measure the strength between the expected and observed values of sex on the phone. The information collected showed that females use their phone more than men than was expected. This was bigger than anticipated. However, the hypothesis was still correct.

Table 1. Sex difference on phone in social situations

|  | No phone | On phone | Total |
| :--- | :--- | :--- | :--- |
| Male $12(8.3)$ | $1(4.7)$ | 13 |  |
| Femal |  |  |  |
| e 18(2.7) | $16(12.3)$ | 34 |  |
| Total | 47 |  |  |

Total ..... 47

## References

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- Onnela, J.-P., Waber, B. N., Pentland, A., Schnorf, S., \& Lazer, D. (2015). Using sociometers to quantify social interaction patterns. Scientific Reports, 4 (1), 5604. https://doi. org/10. 1038/srep05604


[^0]:    " The MENTHAL project" (Andone et al., 2016), did have significant results in numbers as it processed an incredible large amounts of data which was

