# 1. Experiment A

## 1. Demographic questionnaire

# Demographic questionnaire – Experiment A

*Please circle the appropriate answer or follow instructions.*

## 1. Identification

**1.1** Gender:    male / female

**1.2** Age:        _____ years old

## 2. Mobile phone usage

**2.1** How long have you been using a mobile phone?

less than 1 year / less than 2 years / between 2 and 5 years / more than 5 years

**2.2** How often do you:        a. make calls?

many times per day / a few per day / a few per week / very rarely

b.  send texts?

many times per day / a few per day / a few per week / very rarely

**2.3** How do you generally select the person you want to call? *Please tick off the appropriate answer*

☐        Browse a history list (dialled numbers, received calls…)
☐        Browse the contact list by scrolling vertically
☐        Browse the contact list by typing the first letters of the name

☐        Other, *please specify*:

**2.4** How would you describe your experience with "mass messaging" (sending a SMS to multiple recipients at once)? *Please tick off the appropriate answer*

☐ I use this functionality quite often / sometimes
☐ I have tried it once or twice
☐ I have never used this but I think I know how it works
☐ I don't know this feature

**2.5 Observations:**

## *2. System Usability Scale questionnaire*

(modified version)

# System usability scale – Experiment A

|                | Strongly disagree | | | | Strongly agree |
|---|---|---|---|---|---|

**1. I think that I would like to use this system frequently**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**2. I found the system unnecessarily complex**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**3. I thought the system was easy to use**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**4. I would imagine that most people would learn to use this system very quickly**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**5. I found the system very cumbersome to use**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**6. I felt very confident using the system**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**7. I needed to learn a lot of things before I could get going with this system**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**8. I would have needed a longer practice session.**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

9. Generally I think I was able to perform the tasks as quickly as I would expect when I browsed the:

- 91. short list
- 92. medium-sized list

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
|   |   |   |   |   |
|   |   |   |   |   |

v

10. Observations?

### *3. Informed consent form*

# Informed Consent Form for:
*"Evaluation of two list browsing interfaces for comparison of performances"*

This study aims at:
- comparing tasks completion time on two different list browsing interface
- gathering some feedback related to experience using the interfaces

All the participants are asked to perform a series of 12 tasks on a PC application simulating a mobile phone contact list. The participants will randomly be assigned on one of the two interfaces.

Your will be asked to perform the tasks as quickly and accurately as possible, as you would do in a real life situation when manipulating a phone contact list. You will also be asked to fill out a demographic questionnaire and a user satisfaction questionnaire. The outcome sought in this study is to evaluate user performances with the interfaces. The duration of the whole experiment is expected to be around 25 minutes.

By signing below you agree to take part in this study.

Your signature also signifies that you are aware that:

- The task completion times of your experimental activities will be recorded and give permission for this.
- All the results will be anonymised and the participants' name will be substituted. This also applies for the questionnaires.
- You can withdraw from this study at any time and ask for your records to be deleted.
- All data arising from the study will be used in accordance with the Data Protection Act 1998

Print:                                                    Signature:

Date:

This study will be conducted by Xavier Klingenfus

## *4. Tasks list*

The following list of tasks was used for both interfaces. Some tasks simulated single operations in a contact list (searching a contact to make a call, edit a contact info, etc…) whereas others simulated a multi-selection operation (selection of multiple recipients for mass sms sending, etc…).

## Short list (30 items):

**S1** – The cursor is positioned on the first item: the participant has to find and select:
**William Lycan**

**S2** – The cursor is positioned mid-list: the participant has to find and select:
**Andrew Bailey**

**S3** – The cursor is positioned on the first item: the participant has to find and select:
**Uriah Kriegel** then **Christopher Hill**

**S4** – The cursor is positioned on the first item: the participant has to find and select:
**Peter Caruthers, Yujin Nagasawa, Dan Lloyd and Torin Alter**

## Medium-sized list (110 items)

**M1** – The cursor is positioned on the first item: the participant has to find and select:
**William Robinson**

**M2** – The cursor is positioned on mid-list: the participant has to find and select:
**Alex Byrne**

**M3** – The cursor is positioned on the first item: the participant has to find and select:
**Warren Shrader** then **Austen Clark**

**M4** – The cursor is positioned on the first item: the participant has to find and select:
**Nigel Thomas, Tom Polger, Edmond Wright and Robert van Gulik**

## Large list (200 items)

**L1** – The cursor is positioned on the first item: the participant has to find and select:
**Simon Prosser**

**L2** – The cursor is positioned mid-list and the participant has to find and select:
**Christina Bicchieri**

**L3** – The cursor is positioned on the first item: the participant has to find and select:
**Ryan Hickerson** then **Curtis Brown**

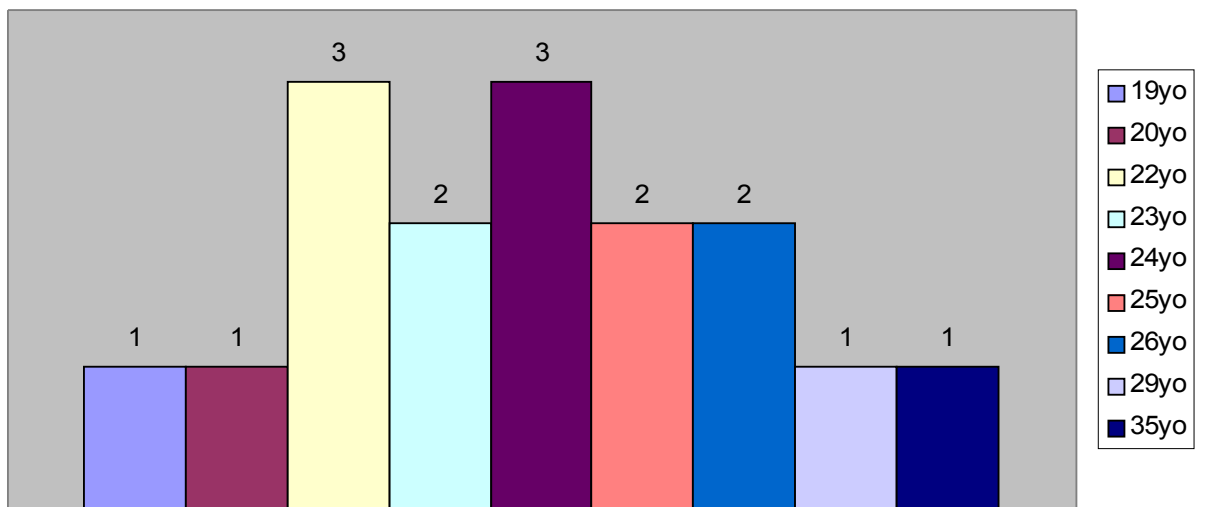**L4** – The cursor is positioned on the first item: the participant has to find and select: **Michael McKinsey, York Gunther, Gary Hatfield and Peter Ross**

# 5. Demographic questionnaire results

*1.1 Gender*
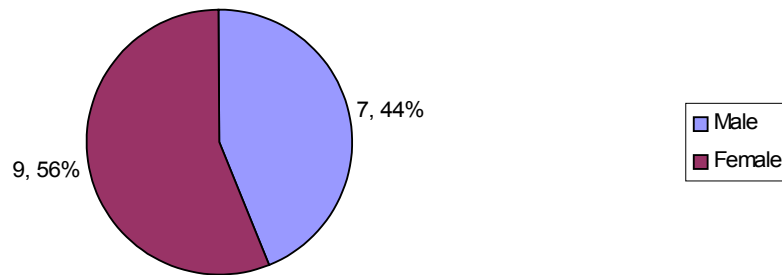


*1.2 Age*



*2.1 How long have you been using a mobile phone?*



x
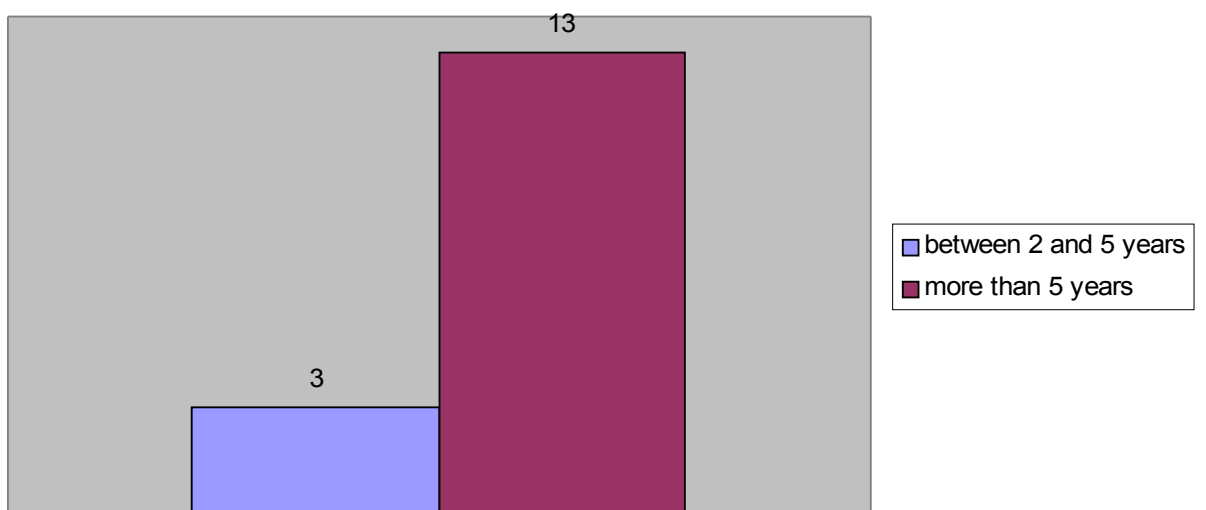
*2.2 How often do you:*

*make calls*
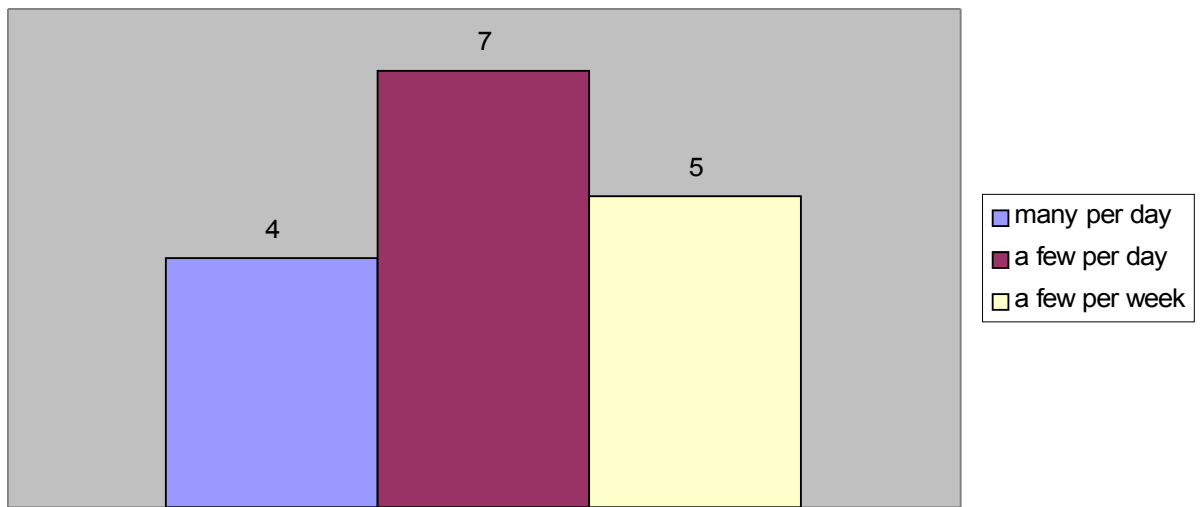


*send texts*
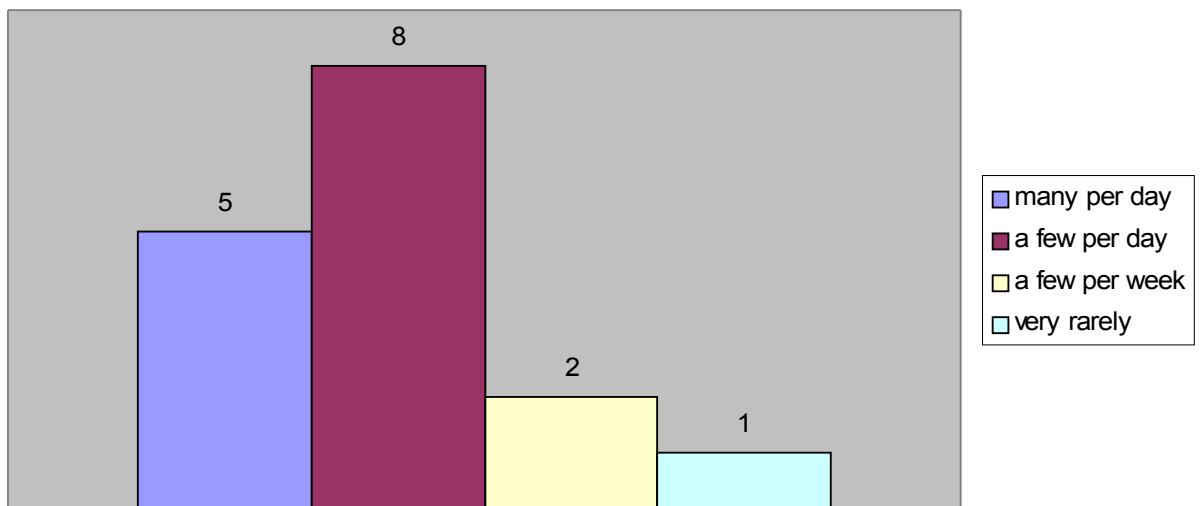


*2.3 How do you generally select the person you want to call?*
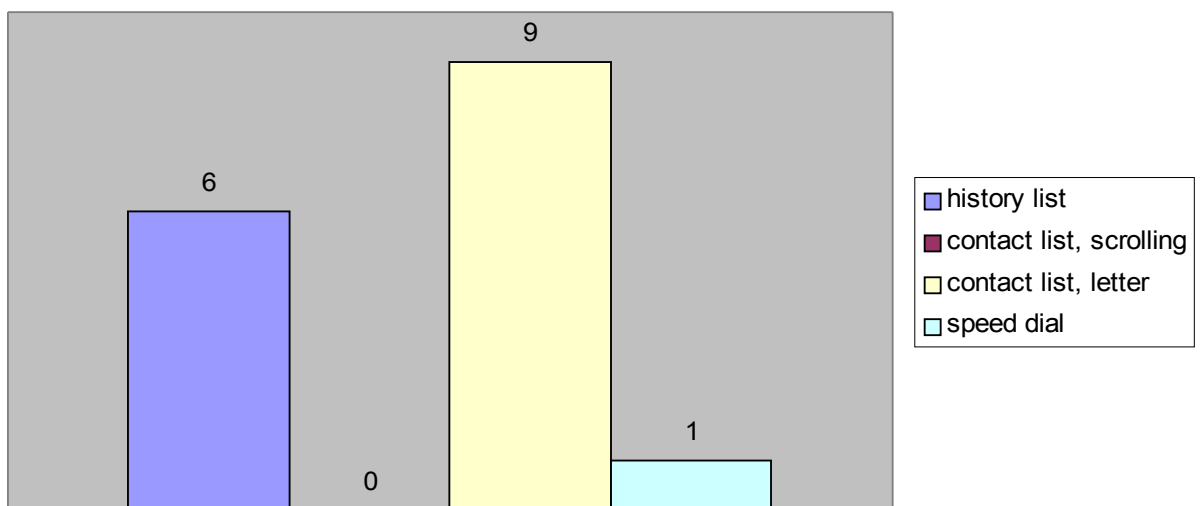
*2.4 How would you describe your experience with "mass messaging" (sending a SMS to multiple recipients at once)?*
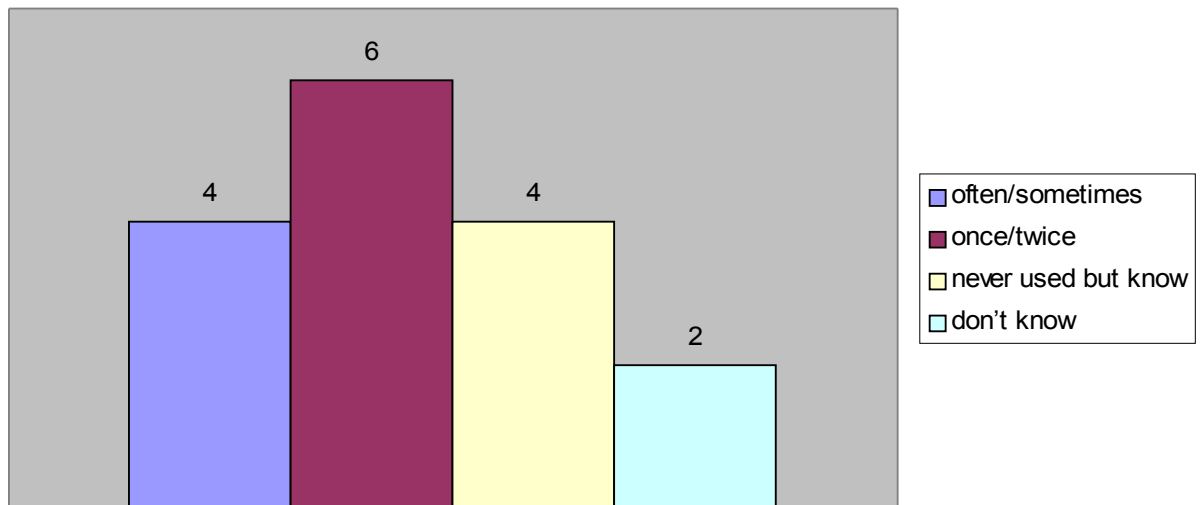


*2.5 Observations:*

1x: - only started texting this year
1x: - mass messaging through Internet
1x: - not used to English names + hard to find Chinese names by typing letters

# 6. SUS questionnaire results

## 1. I think that I would like to use this system frequently
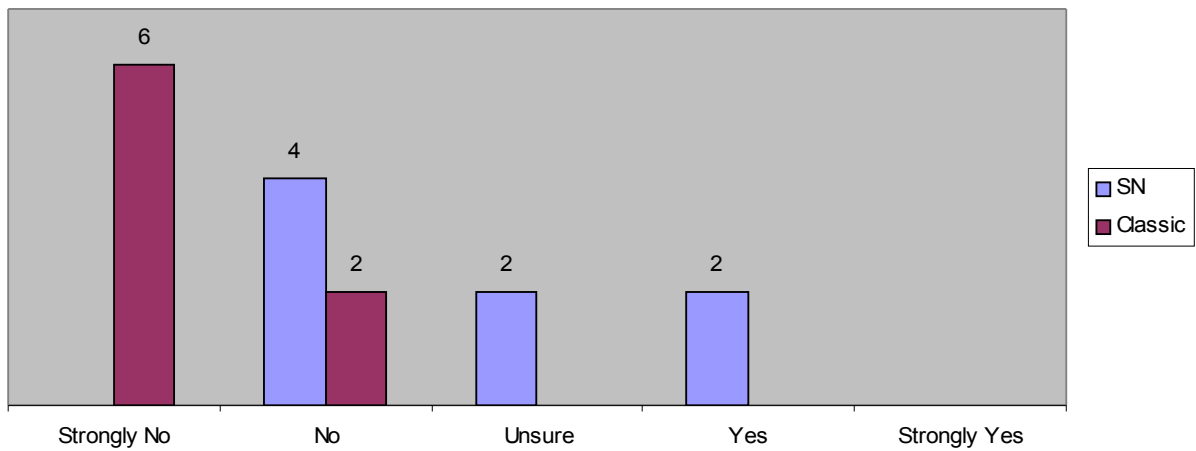


## 2. I found the system unnecessarily complex
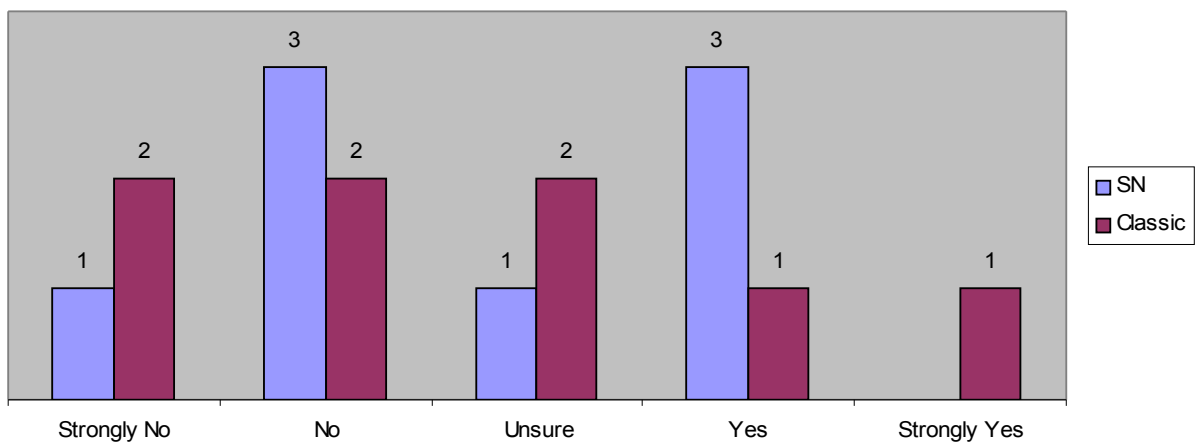


## 3. I thought the system was easy to use
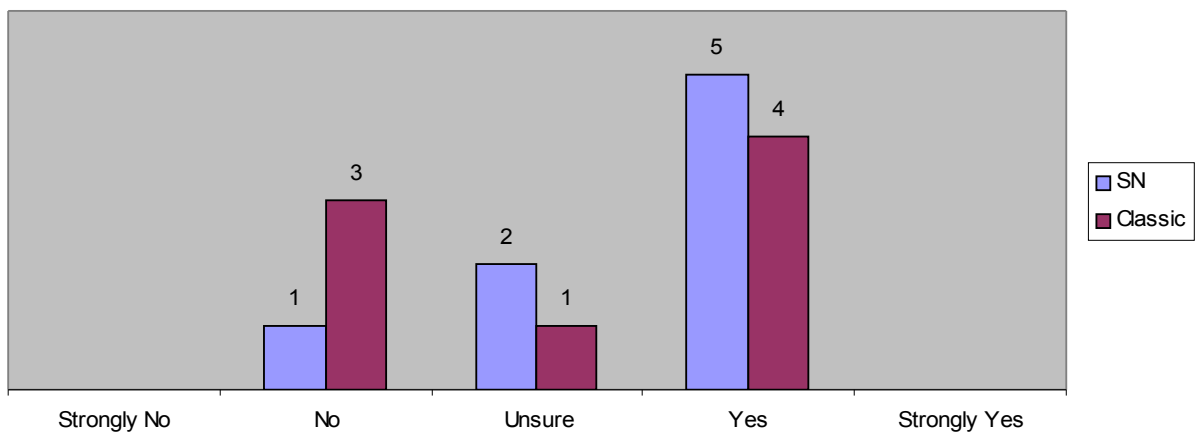
*4. I would imagine that most people would learn to use this system very quickly*
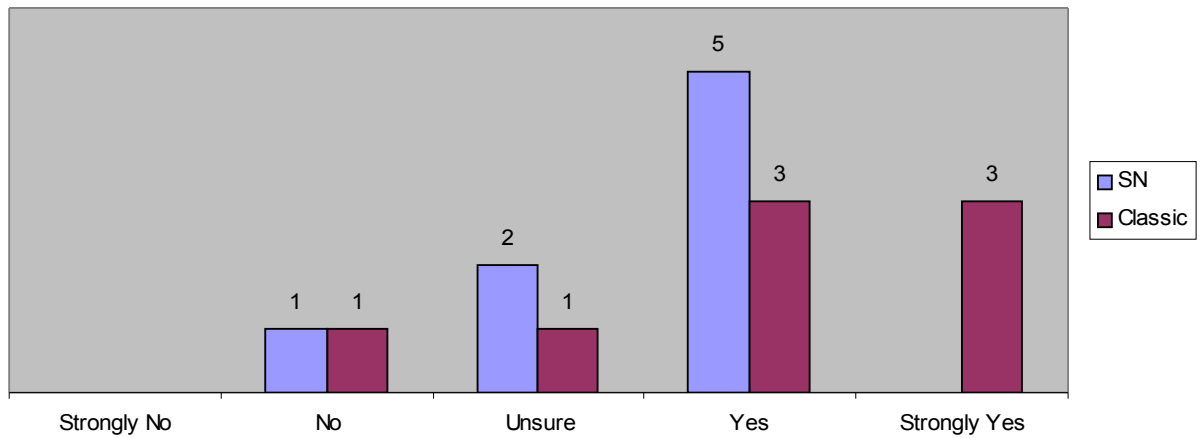


*5. I found the system very cumbersome to use*
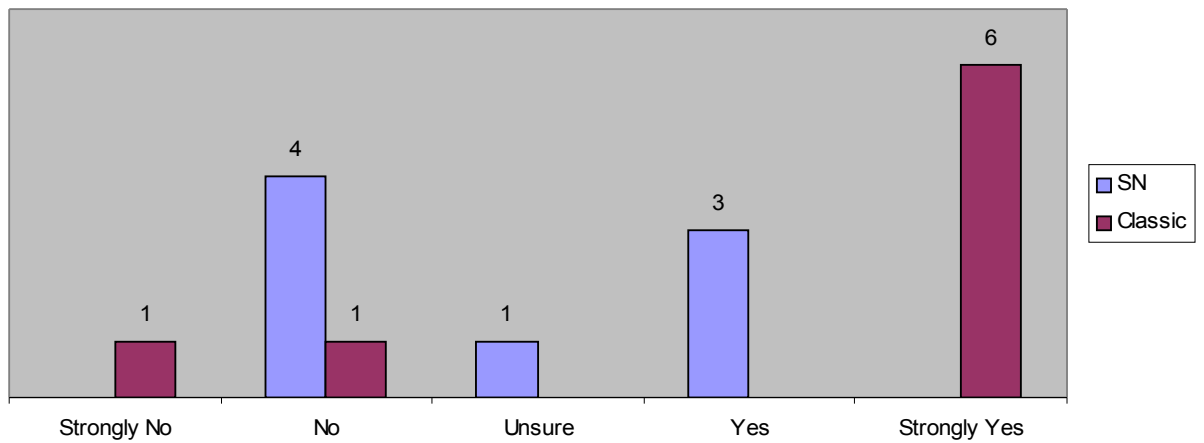


*6. I felt very confident using the system*
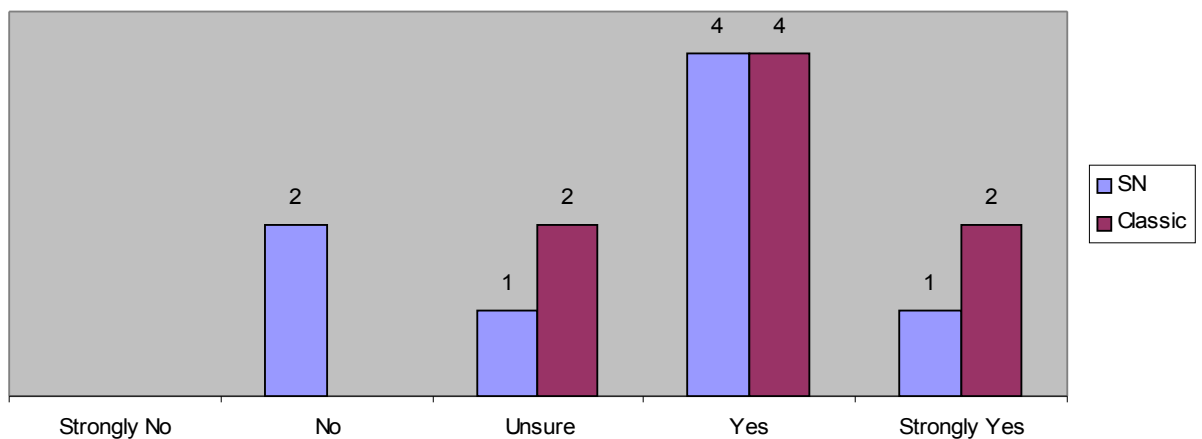
*7. I needed to learn a lot of things before I could get going with this system*
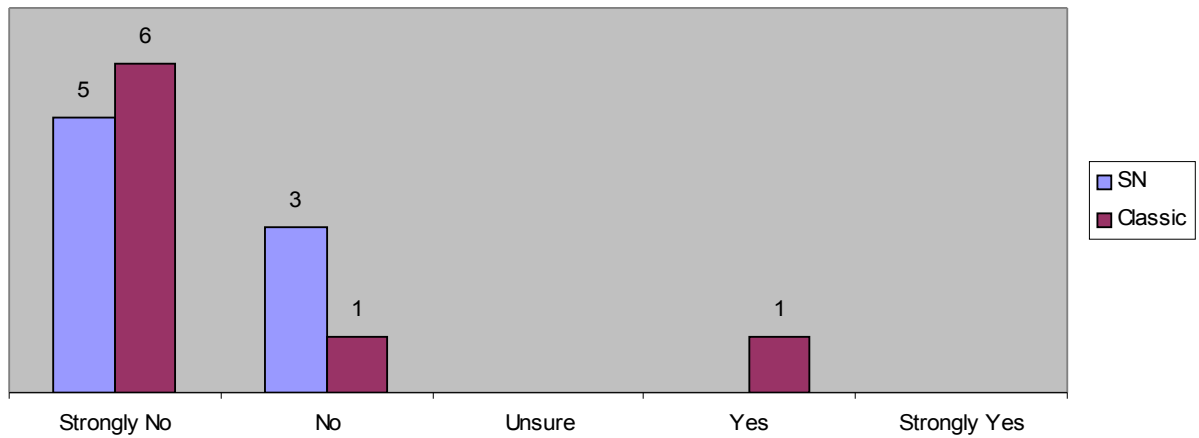


*8. I would have needed a longer practice session*
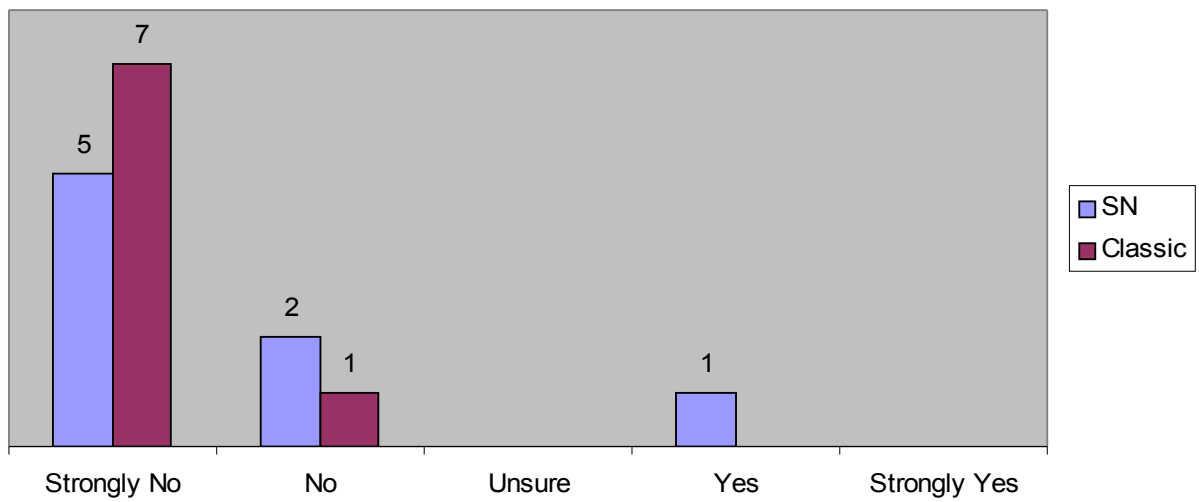


*9. Generally I think I was able to perform the tasks as quickly as I would expect when I browsed the:*

*short lists*
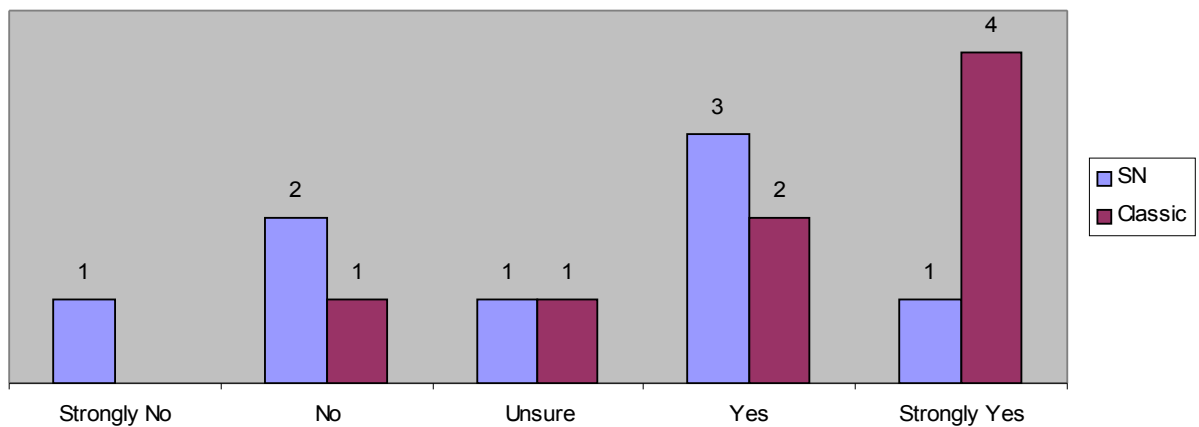
*medium-sized lists*
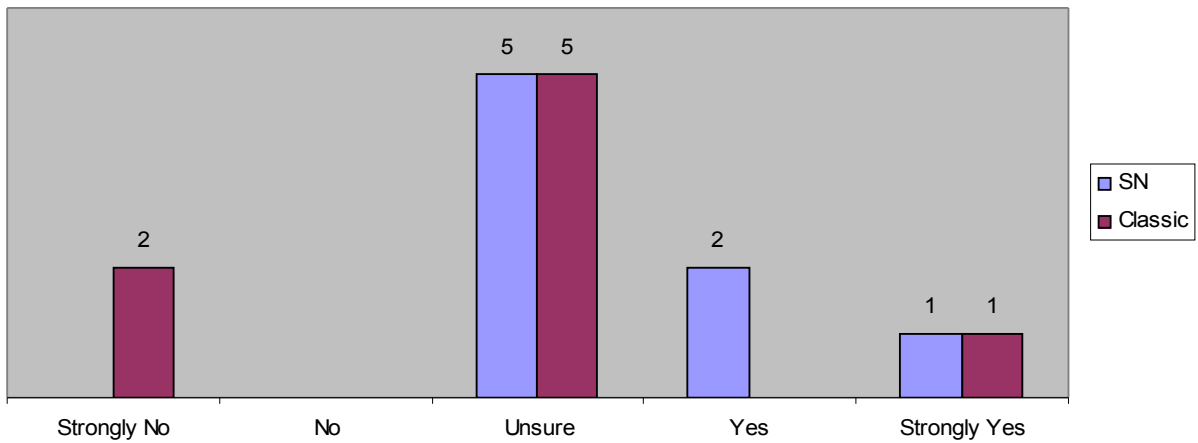


*large lists*
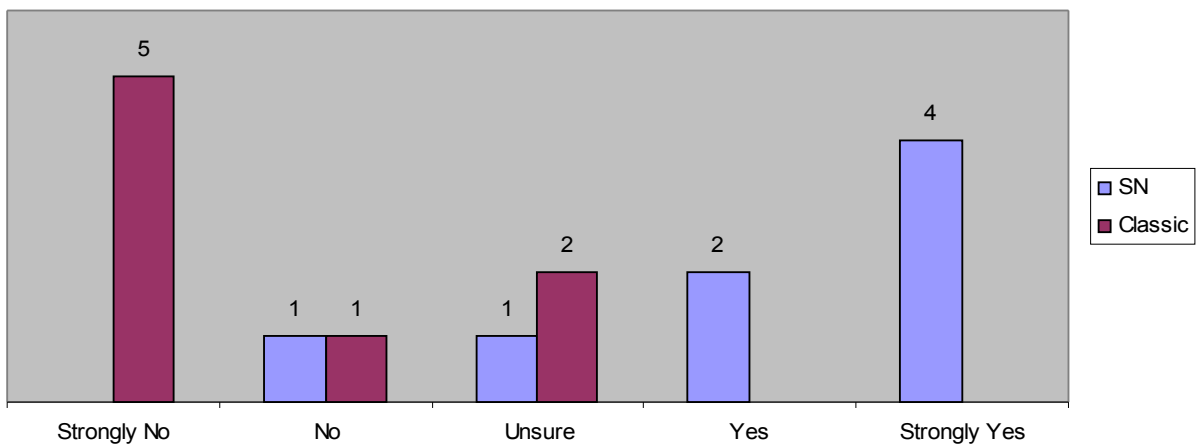


*10. Observations?*

2x: - shortcuts ask for important cognitive effort + random occurrence disorienting...
3x: - useful if no randomization (or fixed one)
1x: - search ok for 1 name but complex for multiple names
1x: - usefulness > for long than short list
1x: - SN: - good system with practice

## 2. Experiment B

### *1. Demographic questionnaire*

# Demographic questionnaire – Experiment B

*Please circle the appropriate answer or follow instructions.*

## 1. Identification

**1.1** Gender:    male / female

**1.2** Age:         _____ years old

## 2. Mp3 Player

**2.1** Do you have or have you ever had an Mp3 Player?

Yes / No

**2.2** If <u>Yes</u> at 2.1, how long have you possessed it?

less than 6 months / less than a year / less than two years / more

**2.3** If <u>Yes</u> at 2.1, how often do you use or have you been using it?

everyday or almost / a couple of times per week / rarely / never

**2.4** Do you have or have you ever had a memory stick that also acts/acted as an Mp3 player (or any similar small device acting as an Mp3 player)?

Yes/No

**2.5** If <u>Yes</u> at 2.4, what storage capacity did/does your model have?

☐      256Mo
☐      512Mo
☐      1Go or more

**2.6** If <u>Yes</u> at 2.4, was the navigation through the playlists pure vertical scrolling? (apart from folder browsing, if applicable)

Yes/No

**2.7** If <u>No</u> at 2.6, please explain:

**2.8 Observations related to your mp3 player(s) (experience, advantages, drawbacks…)?**

## 2. System Usability Scale questionnaire

(modified version)

# System usability scale – Experiment B

Scale:     **Strongly**      **1**     **2**     **3**     **4**     **5**     **Strongly**
      **disagree**                    **Unsure**                     **agree**

1. I think that I would like to use this system frequently

Shortcut w/ names          Shortcut w/ letters          Page UP/DOWN

| | | | | |
|---|---|---|---|---|
1     2     3     4     5          1     2     3     4     5          1     2     3     4     5

Alphabetical scrolling

| | | | | |
|---|---|---|---|---|
1     2     3     4     5

2. I found the system unnecessarily complex

Shortcut w/ names          Shortcut w/ letters          Page UP/DOWN

| | | | | |
|---|---|---|---|---|
1     2     3     4     5          1     2     3     4     5          1     2     3     4     5

Alphabetical scrolling

| | | | | |
|---|---|---|---|---|
1     2     3     4     5

3. I thought the system was easy to use

Shortcut w/ names          Shortcut w/ letters          Page UP/DOWN

| | | | | |
|---|---|---|---|---|
1     2     3     4     5          1     2     3     4     5          1     2     3     4     5

Alphabetical scrolling

| | | | | |
|---|---|---|---|---|
1     2     3     4     5

4. I thought there was too much inconsistency in the system

Shortcut w/ names          Shortcut w/ letters          Page UP/DOWN

| | | | | |
|---|---|---|---|---|
1     2     3     4     5          1     2     3     4     5          1     2     3     4     5

Alphabetical scrolling

| | | | | |
|---|---|---|---|---|
1     2     3     4     5

5. I would imagine that most people would learn to use this system very quickly

Shortcut w/ names
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Shortcut w/ letters
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Page UP/DOWN
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Alphabetical scrolling
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |


6. I found the system very cumbersome to use

Shortcut w/ names
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Shortcut w/ letters
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Page UP/DOWN
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Alphabetical scrolling
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |


7. I felt very confident using the system

Shortcut w/ names
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Shortcut w/ letters
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Page UP/DOWN
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Alphabetical scrolling
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |


8. I needed to learn a lot of things before I could get going with this system

Shortcut w/ names
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Shortcut w/ letters
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Page UP/DOWN
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Alphabetical scrolling
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

9. I would have needed a longer practice session

| Shortcut w/ names | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| Shortcut w/ letters | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| Page UP/DOWN | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| Alphabetical scrolling | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

10. Please rank the following by order of preference: **N** shortcut w/ names, **L** shortcut w/ letters, **H** page UP/DOWN and **A** alphabetical scrolling:

**1st:**                **2nd:**                **3rd:**                **4th:**

11. Observations (back of the sheet):

### 3. Informed consent form

# Informed Consent Form for:
*"Comparison of performances on three interfaces"*

This study aims at:
- comparing tasks completion times on four different list browsing interface
- gathering some feedback related to experience using the interfaces

All the participants are asked to perform a series of 36 tasks on a PC application simulating a mp3 player playlist.

You will be asked to perform the tasks as quickly and accurately as possible, as you would do in a real life situation when manipulating a mp3 player. You will also be asked to fill out a demographic questionnaire and a user satisfaction questionnaire. The outcome sought in this study is to evaluate user performances with the interfaces. The duration of the whole experiment is expected to be around 30 minutes.

By signing below you agree to take part in this study.
Your signature also signifies that you are aware that:

/!\ The task completion times of your experimental activities will be recorded and give permission for this.

/!\ Your behavior on the screen may be observed and give permission for this, knowing that the observations will be collective and not individual.

/!\ All the results will be anonymised and the participants' name will be substituted. This also applies for the questionnaires.

/!\ You can withdraw from this study at any time and ask for your records to be deleted.

/!\ All data arising from the study will be used in accordance with the Data Protection Act 1998

Print:                                                           Signature:

Date:

This study will be conducted by Xavier Klingenfus

## 4. Tasks list

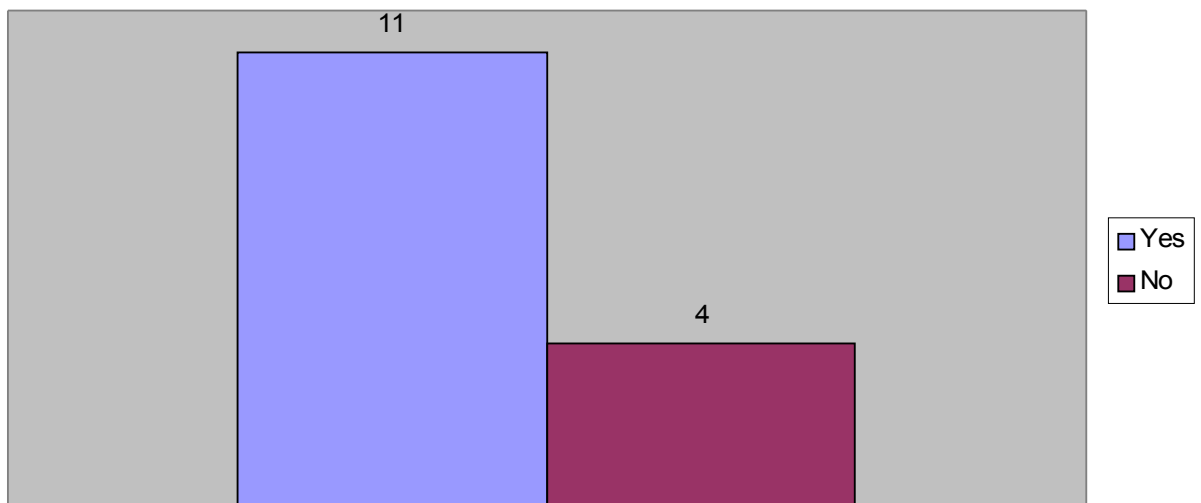| N. | Task id | Song to find | Starting position of cursor |
|----|---------|--------------|-----------------------------|
| 1 | N-S1 | "The Beatles – She loves you" | 1st out of 60 |
| 2 | N-S2 | "Keith Urban – I told you so" | 5/60 |
| 3 | N-S3 | "Basement Jaxx – Hush boy" | 55/60 |
| 4 | N-M1 | "The Killers – All these things that I've done" | 1/120 |
| 5 | N-M2 | "Placebo – Pure morning" | 10/120 |
| 6 | N-M3 | "Beethoven – Piano concerto n. 5" | 110/120 |
| 7 | N-L1 | "U2 – Elevation" | 1/240 |
| 8 | N-L2 | "The Cardigans – Erase and rewind" | 15/240 |
| 9 | N-L3 | "Billy Idol – Eyes without a face" | 230/240 |
| 10 | L-S1 | "The Beatles – She loves you" | 1/60 |
| 11 | L-S2 | "Keith Urban – I told you so" | 5/60 |
| 12 | L-S3 | "Basement Jaxx – Hush boy" | 55/60 |
| 13 | L-M1 | "The Killers – All these things that I've done" | 1/120 |
| 14 | L-M2 | "Placebo – Pure morning" | 10/120 |
| 15 | L-M3 | "Beethoven – Piano concerto n. 5" | 110/120 |
| 16 | L-L1 | "U2 – Elevation" | 1/240 |
| 17 | L-L2 | "The Cardigans – Erase and rewind" | 15/240 |
| 18 | L-L3 | "Billy Idol – Eyes without a face" | 230/240 |
| 19 | H-S1 | "The Beatles – She loves you" | 1/60 |
| 20 | H-S2 | "Keith Urban – I told you so" | 5/60 |
| 21 | H-S3 | "Basement Jaxx – Hush boy" | 55/60 |
| 22 | H-M1 | "The Killers – All these things that I've done" | 1/120 |
| 23 | H-M2 | "Placebo – Pure morning" | 10/120 |
| 24 | H-M3 | "Beethoven – Piano concerto n. 5" | 110/120 |
| 25 | H-L1 | "U2 – Elevation" | 1/240 |
| 26 | H-L2 | "The Cardigans – Erase and rewind" | 15/240 |
| 27 | H-L3 | "Billy Idol – Eyes without a face" | 230/240 |

# 5. Demographic questionnaire results
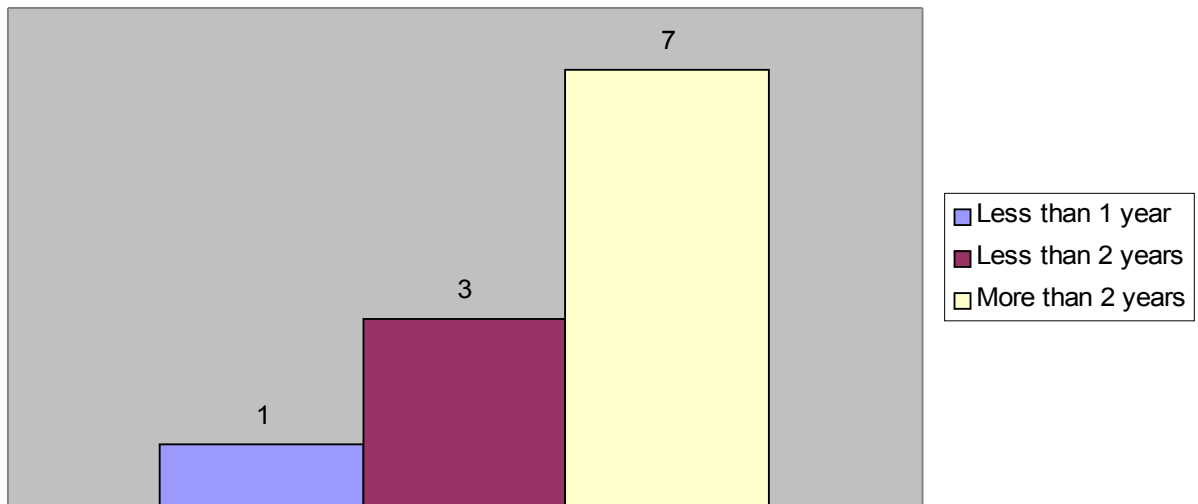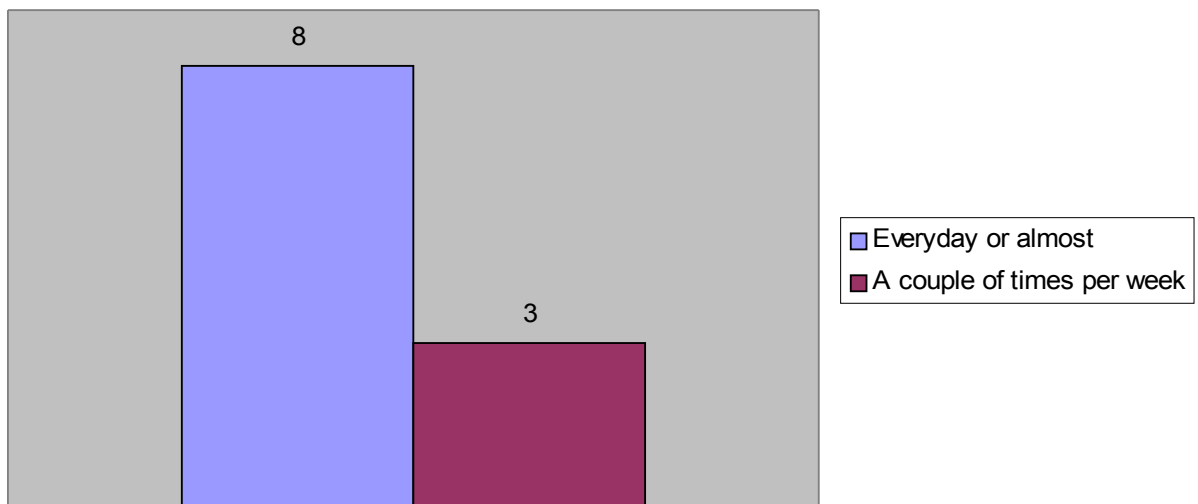
*1.1 Gender*
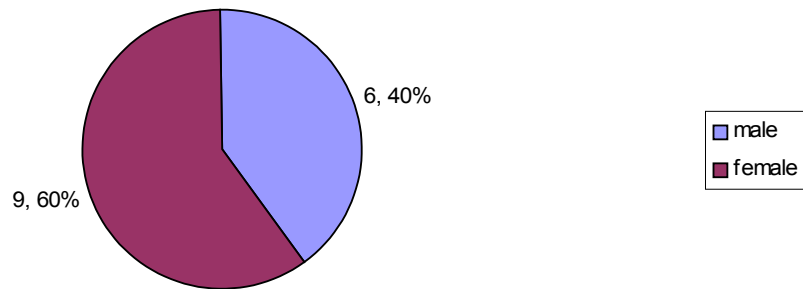


*1.2 Age*
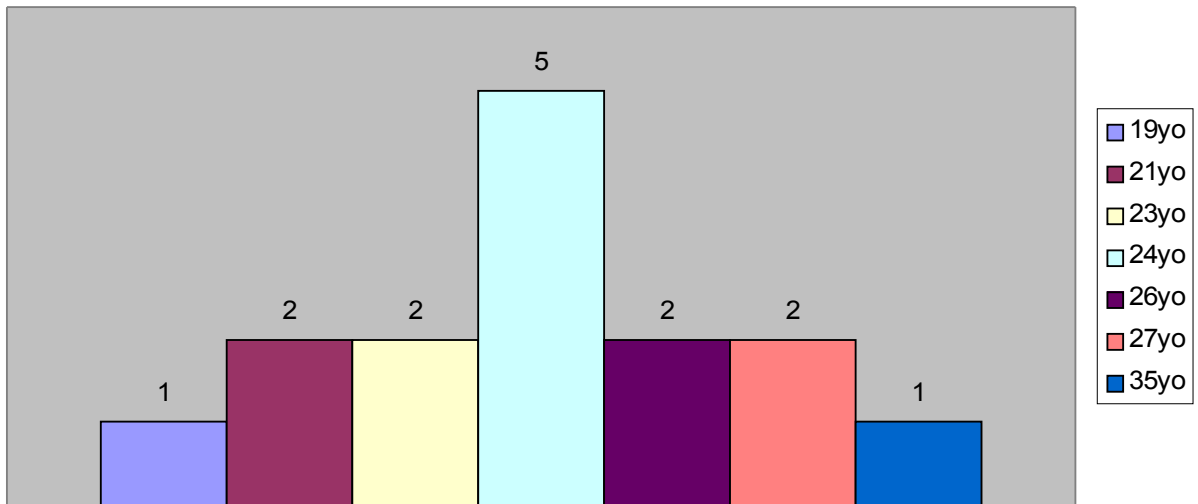


*2.1 Do you have or have you ever had an Mp3 Player?*

*2.2 If <u>Yes</u> at 2.1, how long have you possessed it?*



| | |
|---|---|
| ☐ | Less than 1 year |
| ■ | Less than 2 years |
| ☐ | More than 2 years |

*2.3 If <u>Yes</u> at 2.1, how often do you use or have you been using it?*



| | |
|---|---|
| ☐ | Everyday or almost |
| ■ | A couple of times per week |

*2.4 Do you have or have you ever had a memory stick that also acts/acted as an Mp3 player (or any similar small device acting as an Mp3 player)?*



| | |
|---|---|
| ☐ | Yes |
| ■ | No |
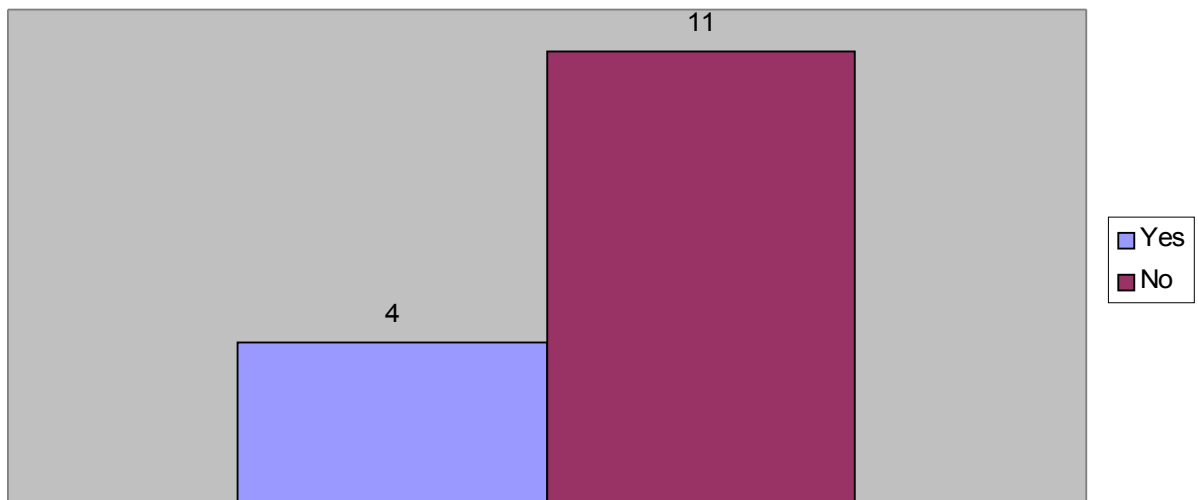
*2.5 If Yes at 2.4, what storage capacity did/does your model have?*
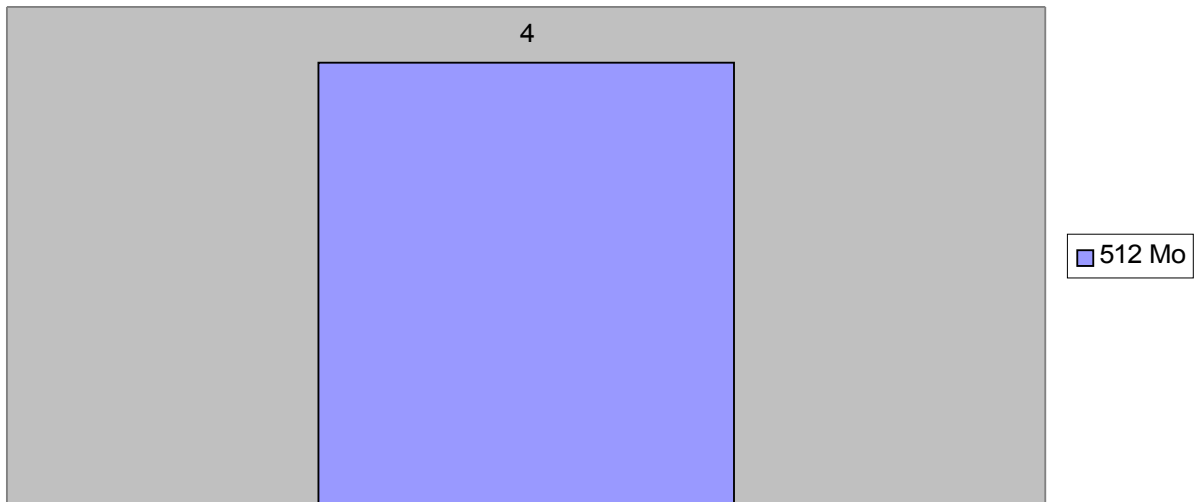


*2.6 If Yes at 2.4, was the navigation through the playlists pure vertical scrolling? (apart from folder browsing, if applicable)*
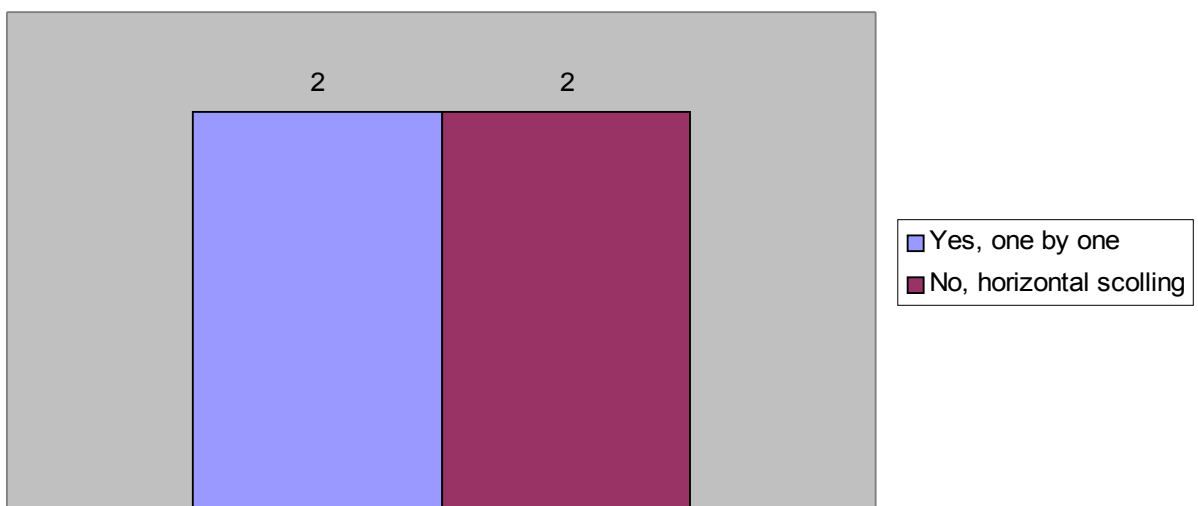


*2.8 Observations related to your mp3 player(s) (experience, advantages, drawbacks…)?*

1x: - iPod scrolling wheel very satisfying
1x: - not familiar at all with technology
1x: - [about his/her small screen mp3 player] clumsy flimsy buttons, terrible battery life, proprietary software that is not user friendly, navigation slow and hard to go back steps.

# 6. System Usability Scale questionnaire results

*1. I think that I would like to use this system frequently*
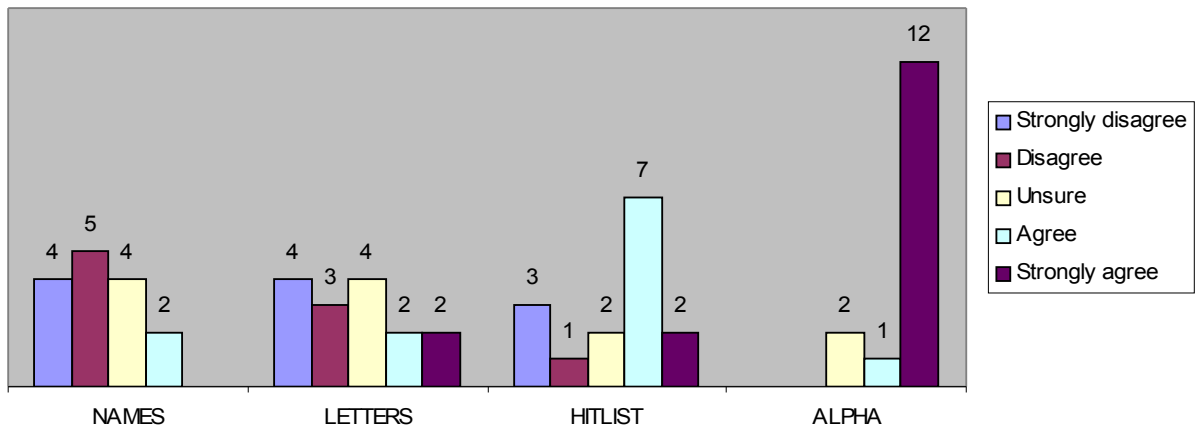


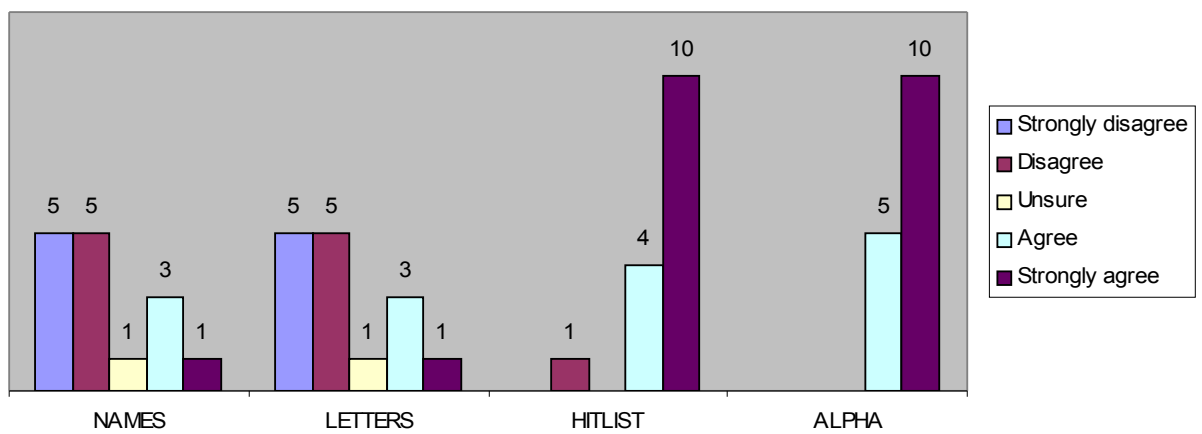*2. I found the system unnecessarily complex*
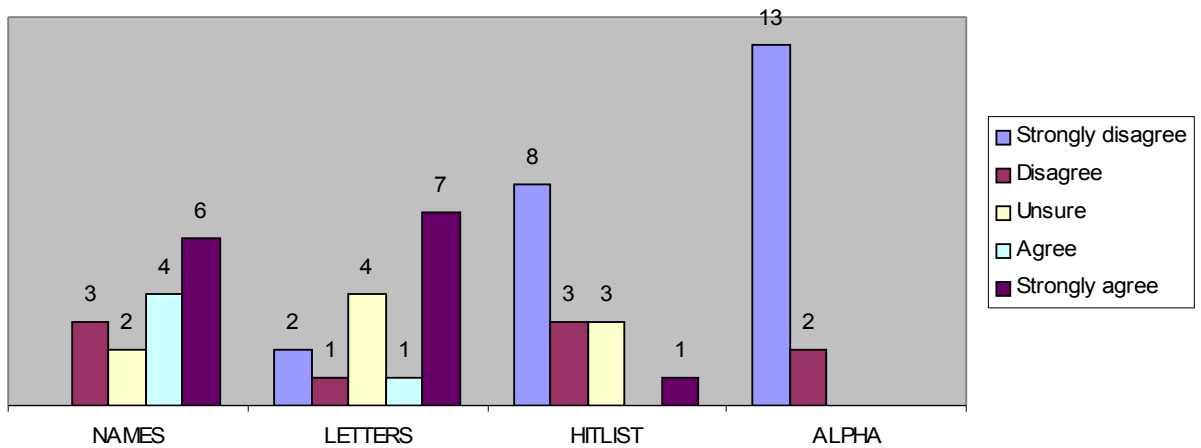


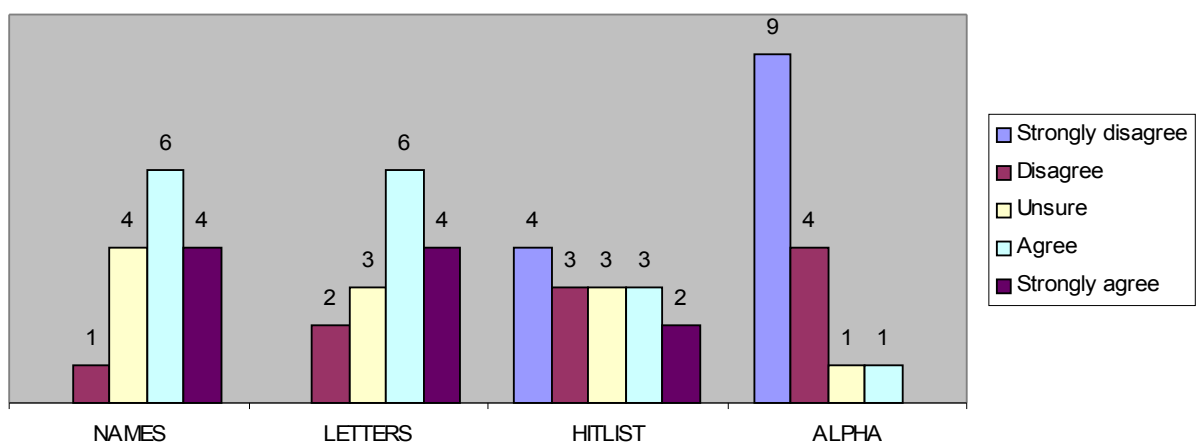*3. I thought the system was easy to use*
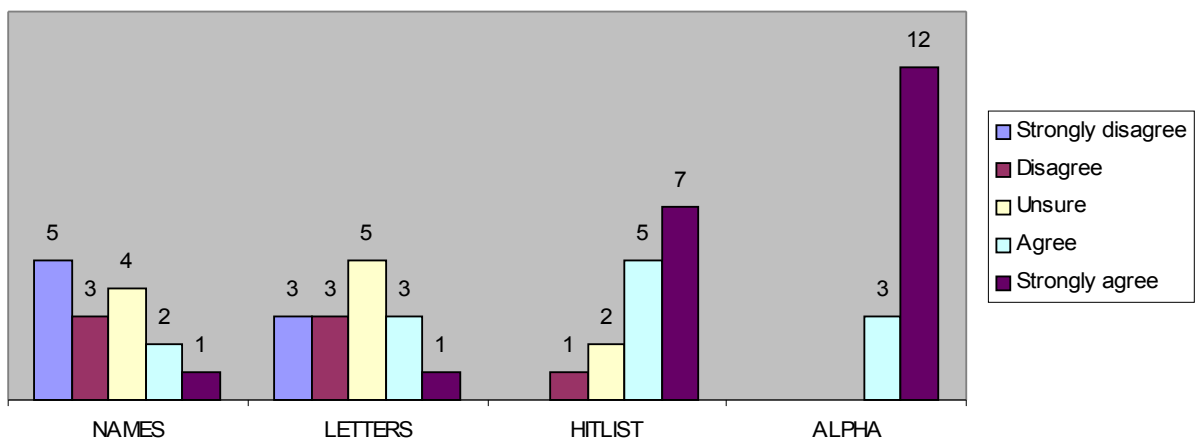
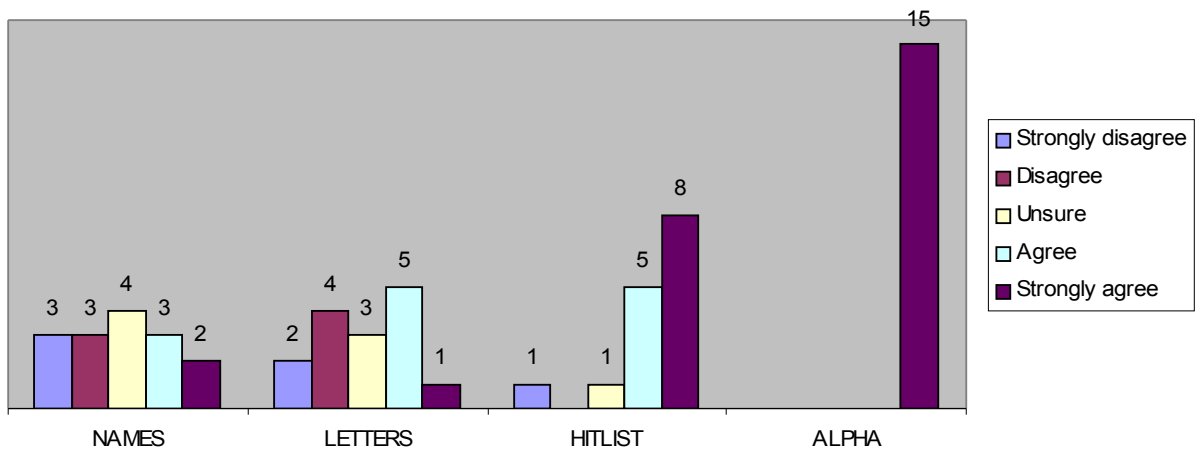*4. I thought there was too much inconsistency in the system*
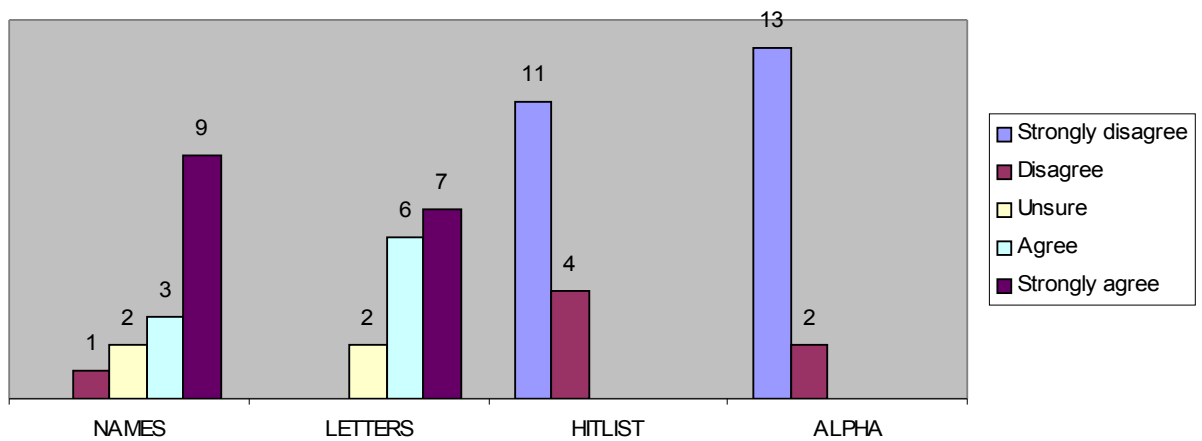


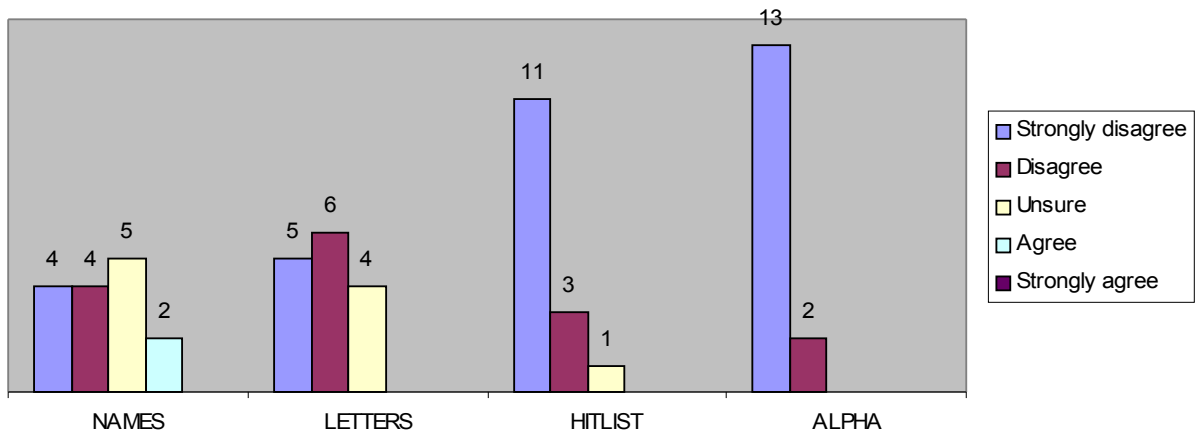*5. I would imagine that most people would learn to use this system very quickly*



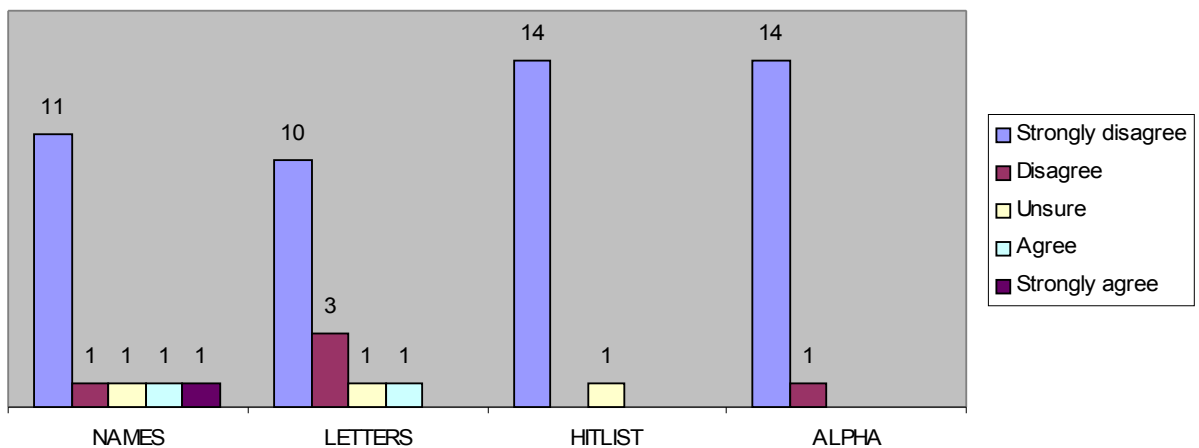*6. I found the system very cumbersome to use*



xxx

*7. I felt very confident using the system*



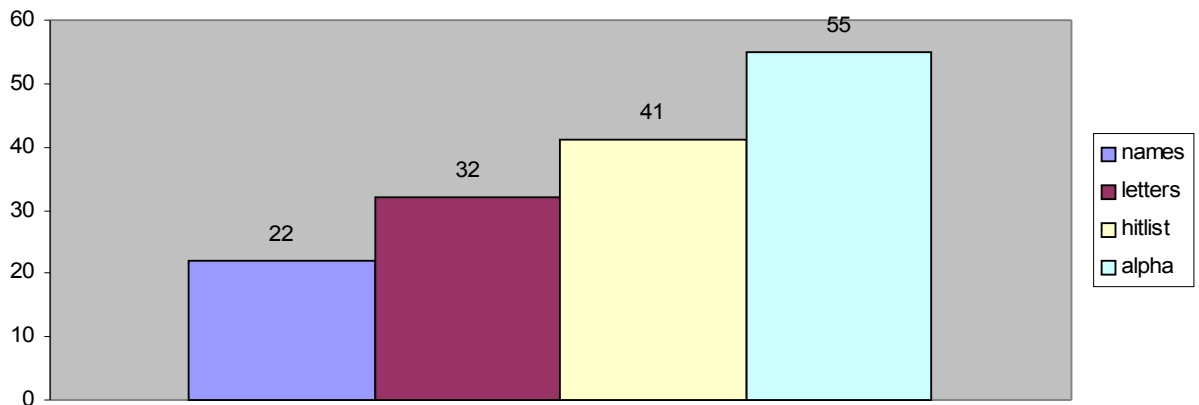*8. I needed to learn a lot of things before I could get going with this system*



*9. I would have needed a longer practice session*

*10. Please rank the following by order of preference*

Scores (4pts for 1$^{st}$, 3pts for 2$^{nd}$, 2pts for 3$^{rd}$ and 1 pt for 4$^{th}$)



*11. Observations (back of the sheet):*

3x: - randomness of letters and artists was unexpected and added confusion
2x: - PUP/DOWN useless on long lists
1x: - N should have links to artists with the most songs
1x: - N = too much thinking
1x: - Shortcuts = too much thinking
1x: - better if shortcuts were higher on the list
1x: - N useful in rediscovering tracks
2x: - back in the alphabet by pressing LEFT arrow