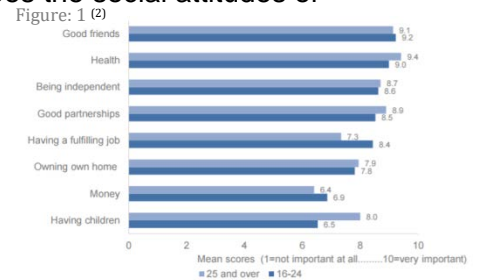


## PROBLEM DEFINITION

With today's generation of young adults (16-24), good job opportunities and money are two factors that are more important than with the older generations (25 and over).

A report commissioned by the Cabinet Secretary's Advisory Group in 2013, and carried out between February 2013 and March 2014<sup>(1)</sup>, backed by 10 academic figures to ensure the research results are accurate to that current time period describes the social attitudes of young people.

Figure 1 shows that the differences between the way different age groups think is a small one, yet there is a difference. The younger age group see having a fulfilling job and money more important than the older age group, whereas the older age group see having good partnerships and having children more important than work or money.



Now that we have established what young people prioritise, we also have to take into consideration other factors that may affect their day to day schedules. For example a working young person might be required to pay their own rent, buy their own food, take care of their family, help family/friends with their problems and so on. A student might have to do all of these and more. There are many questions which could be asked, such as “How are you managing all of these?” or “Are you able to manage all of these correctly?”

The main issue is that with all the responsibilities young adults have to face on a daily basis it is becoming hard for them to handle all of these correctly; it is hard for them to manage their time well enough. Time, if not managed well, can lead to:

- stress
- in severe situations depression
- inefficient work flow
- wasted time
- missed deadlines
- poor quality work

To help young adults/students (18+) improve on managing their time better, we (Sebastian M Zdroana, Wisam Albarkat, Mohamed Saeed, Abdilgani Abdallah) have been asked to design a phone application called WorkIt! which will help them manage their time better. The application will be designed based on research carried out on young adults (students), 18 and over, to discover what difficulties they are currently facing, so that the application can combat these issues, and overall help them manage their time better.

(1) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/389086/Horizon\\_Scanning\\_-\\_Social\\_Attitudes\\_of\\_Young\\_People\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/389086/Horizon_Scanning_-_Social_Attitudes_of_Young_People_report.pdf) – Page 5

(2) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/389086/Horizon\\_Scanning\\_-\\_Social\\_Attitudes\\_of\\_Young\\_People\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/389086/Horizon_Scanning_-_Social_Attitudes_of_Young_People_report.pdf) – Page 26

## DATA GATHERING METHODS USED

The way we, as a team, approached the research phase of the project was by deciding on questionnaire questions and interview questions which we then used to help us gather data about the participants.

Data including:

- Age
- Academic stance
- General habits
- Participants current/past time management approaches
- Participants current/past time management combat methods
- Participants current/past time management application usage

We used methodology triangulation to allow us to break down the data gathering into two methods, questionnaires and interviews.

We used a questionnaire because it allowed us to get more general data which didn't require too much explanation; it helped us get a basic understanding of the participant's habits and behaviour. We also performed interviews because it allowed us to fill in the gap left by the questionnaires, which is the lack of detail, but also to validate participants' behaviour.

For example looking at the questionnaire answers, we asked the participant if they agree or disagree on having a contingency plan to deal with unexpected events. This question produces a simple answer which can be interpreted by the researcher/analyst, however, what if we wanted more data. We then further asked questions within the interview to get more data such as "How do you manage your scheduled activities to avoid lateness and collision of events?"

The interview question mentioned above fills in the missing data gap left by the questionnaire contingency question by asking the interviewee how they manage their time to avoid lateness and collision of events. Both questions provide similar data which can be linked together as collision of events is very similar to unexpected events. This is because an unexpected event could collide with a scheduled one.

The interviews allowed us to get a better understanding of the interviewees and their choices. This is because we asked them to tell us about what they like to do and why, how they approach certain situations and why, what their train of thought is and why.

## ANALYSIS OF GATHERED DATA

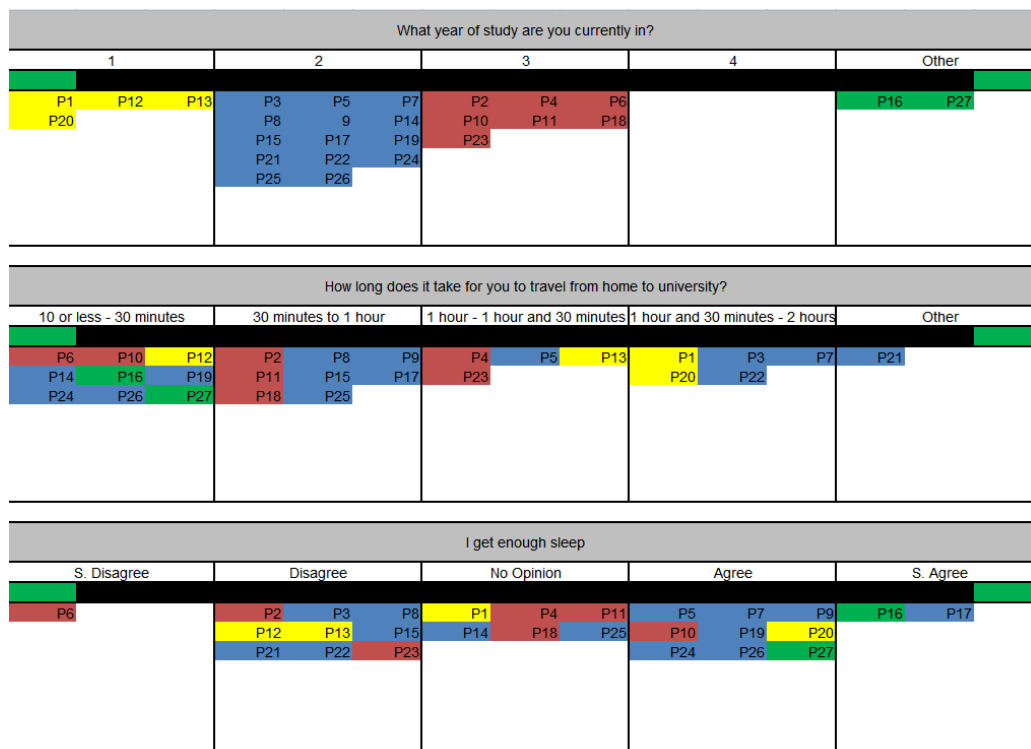
Once the data gathering process was complete, we initiated on analysing the data to turn it into useful information which could be used for designing the application which would suit the targeted audience.

**Google forms** – this allowed us to view some of the most basic replies in bar graphs and pie charts. This was a similar approach to using variables as you can easily generalise the data in certain situations, such as the examples shown below. However, this method only gives a limited amount of perspective as it doesn't allow you to see any trends or patterns within the data.

For example, if you wanted to see if participant 20 was in their second year of study and smoked often, you couldn't, you would have to look at their response directly to validate that statement. This is a good example of how constrained this method is.

**Mapping behavioural variables** – this allowed us to put the data into variables to visualise where the participants' responses lay. This was useful because it allowed us to visualise behavioural patterns within the data and it allowed us to create user stories based on those patterns. This could either display a behavioural pattern for a certain type of participant or for all the participants overall. One approach to analysing the data from these was to colour code the participants in the visualisation according to a certain factor.

Take the following as an example.



The visualisation allowed us to see that most first year students took between 1 hour and 30 minutes to 2 hours to get to university and home whereas the second year students only took between 10 minutes or less to 30 minutes to get to university. Further looking into the data and colour coding it according to year group you can see that the first year students believe they weren't getting enough sleep whereas the second year students were. This could indicate that the longer travelling time may affect the sleep students are getting, however, the research has not been carried out on a large enough scale to confidently state that. At this current moment it can only be an assumption.

**User stories** – these allowed us to get an understanding of the questionnaire participants/interviewees in the sense of who they are, what do they want, how they behave and what type of person they are. It helped visualise patterns between participants behaviour.

As shown in the above example, the user story which was created using the visualisation method allowed us to see that most first year students lived further from the university than the second year students which might have played a role in the fact that first year students weren't getting enough sleep whereas the second year students did.

**Personas** – this allowed us to get a general idea of what kind of people our target audience are. It helped us get a general idea of what problems they were facing, what problems they might face and the points mentioned in the above paragraph. Personas are important in the research phase as they help the designer know what is needed, and we believe we now have a somewhat idea of what the application should do according to the data we have gathered.

**UXI Matrix** – the importance of the UXI Matrix was to visualise what influence the user stories had on the personas, but also to evaluate the personas. It showed a clear breakdown of:

- what user stories the persona contained
- how relevant the persona was
- who had an influence on the persona
- the current progress on the persona

The UXI Matrix is a good way to rapid design as we could see what was going on as we went along with creating the UXI Matrix and how relative the personas ended up being, as something that seems to be a good idea doesn't always end up being one.

**System requirements** – according to the data we have gathered, there are a great deal of functions we could implement into the application to help young adults/students manage their time better. A few of these are deadline notifications, lifestyle tips, goal setting advice and inspirational quotes. However, the fact that no one mentioned something similar public transport reminders or worded differently, leaving the house reminders even though issues with public transport seemed to be one of the most common lateness issues for young adults/students denotes that people don't really know what exactly they want; they need to be suggested things.

By public transport reminders, I mean a function which would connect the application with some sort of service that provides bus/train/coach departure times, where the application would try to calculate when the user should leave the house to not arrive late. This would solve one of the most common problems, which is affecting punctuality.

## DISCUSSION ON WHAT WENT WELL AND HOW YOU WOULD IMPROVE THE METHOD

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Our approach to the research phase was average. We carried out the questionnaires and interviews well, however, more questions should have been asked, some removed and some refined. With that said the gathered data turned out to be quite useful for designing a solution to helping young adults/students manage their time better. This is because the data gathered helped us visualise what and who we are dealing with in terms of target audience and the issues they are facing. We can now proceed onto the design phase knowing what features could potentially help the users manage their time better.

The research data gathered itself could have been enhanced by increasing the amount of participants who took part in our research. It could have helped us get an even clearer understanding what young adults/students are facing on a day to day basis.


I personally see our attempt as a learning curb, where if placed in the same situation in a future project we would automatically perform significantly better. Also knowing how we performed in the research phase as a team has clearly shown us our weak and strong points which will make us considerably execute the next stage (design) better.

## APPENDIX 1 - DECLARATION FORM AND ETHICAL APPROVAL REQUEST - FORM D

Student Project: Ethical Approval Request			
Name: Sebastian M Zdroana	Student ID: m00495434	Date:	
Supervisor:			
Title WorkIt!			
<b>Ethical Approval Statement:</b>			
<b>Declaration A</b>			
(i) I have studied the Ethical Approval section.			
(ii) I have established that my study does not require additional human participation.			
(iii) I agree to re-apply for approval if the nature or goals of my project change.			
<input type="checkbox"/>			
<b>Declaration B</b>			
Project Goals involving human participation:			
Gather data to shape a phone application which will help young adults/students manage their time better			
(i) I have studied the Ethical Approval section.			
(ii) My study involves human participation through			
o observation			
o questioning.			
(iii) Participants will be selected without coercion (see Chart 1).			
(iv) I will obtain informed consent (see Chart 2) from each participant using Form C.			
(v) I have arrangements in place for the protection of personal data (see Chart 3).			
(vi) I agree to re-apply for approval if the nature or goals of my project change.			
<input type="checkbox"/>			
<b>Declaration C</b>			
My project does not fulfil the conditions for fast track Ethical Approval and I am applying separately to the Ethics Committee			
<input type="checkbox"/>			
Note: to make an application to the Ethics Committee, you need to complete			
<b>Form E - Application for Ethical Approval &amp; Form C – Informed Consent Form</b>			
(Download from: <a href="http://tinyurl.com/mdx-ethics">http://tinyurl.com/mdx-ethics</a> )			
Student Signature..... Date.....			
Supervisor's Signature..... Date.....			



## APPENDIX 2 - COPIES OF SIGNED CONSENT FORMS - FORM C

  
**CONSENT FORM**

**Title of Project:** WorkIt! – Lifestyle and Time Management for Students

**Name of Researcher:** ☐ Abdilgani Abdallah ☐ Mohamed Saeed ☐ Wisam Albarkat ☐ Sebastian Zdroana


- I confirm that I have read and understand the information sheet dated \_\_\_\_\_ for the above study and have had the opportunity to ask questions.
- I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
- I agree that this form that bears my name and signature may be seen by a designated auditor.
- I agree that my non-identifiable research data may be stored in National Archives and be used anonymously by others for future research. I am assured that the confidentiality of my data will be upheld through the removal of any personal identifiers.
- I understand that my interview may be taped and subsequently transcribed.
- I agree to take part in the above study.

Name of participant	Date	Signature
Name of person taking consent (if different from researcher)	Date	Signature
Researcher	Date	Signature
Name of parent/guardian (if appropriate)	Date	Signature

1 copy for participant; 1 copy for researcher;

20<sup>th</sup> Oct 2016  
*Sebastian Zdroana*

Consent form

  
**participation sheet**

**11. What will happen to the results of the research study?**  
The results of the user research study will be used as part of the CSD3820 module. The results may also be presented at conferences or in journal articles. However, the data will only be used by members of the research team and at no point will your personal information or data be revealed.

**12. Who has reviewed the study?**  
The study has received full ethical clearance from the module leader who reviewed the study.

**13. Contact for further information:**  
If you require further information, have any questions or would like to withdraw your data then please contact:

Abdilgani Abdallah	aa3492@live.mdx.ac.uk
Mohamed Saeed	ms2638@live.mdx.ac.uk
Wisam Albarkat	wa188@live.mdx.ac.uk
Sebastian Zdroana	sz207@live.mdx.ac.uk

Thank you for taking part in this study. You should keep this participant information sheet as it contains your participant code, important information and the research teams contact details.

20<sup>th</sup> Oct 2016  
*Sebastian Zdroana*

participation sheet



## APPENDIX 3 - INTERVIEW TRANSCRIPTS

Transcript 2:  
Interviewers:  
Abdillahi  
Wisam  
Sebastian  
Participant name kept confidential

Sebastian: What activities do you take part in? And why do you take part in those activities?

Participant: I do reading because I like reading, mostly that is the only thing I do, I am more of a lazy person, I don't partake in anything.

Wisam: How do you manage your scheduled activities to avoid lateness and collision of events?

Participant: Obviously make sure I wake up early, leave the house early, I know when the bus the train is coming so I get on the early bus, as early as I can, and make sure that I am at least five minutes or ten minutes early.

Abdillahi: If you were ever to use a time management app do you prefer a sound based notification or a screen viewed notification to remind you about upcoming events and why?

Participant: Obviously I would use a sound notification, because if I use the other option I would never even open it, I will be like yeah I will check this later and then forget about it.

Abdillahi: What features should a time management app have to plan your events?

Participant: Calendar, timing, days, obviously the sound alarm and how many times you want to repeat it.

Abdillahi: Do you think defining a start time and a finishing time for each task allows a more effective time usage (why or why not)?

Participant: Yes, time management is way better than doing it randomly on different days, for example I am off tomorrow, I can spend 3 hours on this project every week, 3 hours in one day. I think you can get it done easily without wasting your time and doing it last minute.

Sebastian: Do you think arranging tasks in sub categories is important to be aware of which events are more important than others?

Participant: Yes, I can't miss my university lectures and seminars, other stuff like shopping they aren't important so I will plan these activities around the important ones.

Wisam: Have you ever found other ways to manage your time that were rewarding or that made your time more effective?

Participant: Not really, I might just tell my mum I have to be somewhere so remind me or wake me up early.

Wisam: Describe a situation where you have been required to do a number of things at the same time. How did you handle it?

Participant: I struggled because I am not a multitasking person. I can only focus on one thing at a time.

Sebastian: Normally, how long does it take you to start a project or an assignment before the given deadline? Why?

Participant: Depends on the subject, for example like chemistry or physics and it is really hard, it will take me ages to do it and I know that I will struggle with it, I will start it a month before the deadline because I need time to improve it.

Abdillahi: Do you find it helpful to look at your timetable to remind yourself of what time your classes or seminars are? Why or why not?

Participant: Yes, it is help because I will be on time, not late and I won't miss my lectures and seminars, so it reminds me what I have to do exactly what time. I check my timetable once a week.

Wisam: How do you track your tasks status?

Participant: I don't track my task status, I only know what to do in my head.

<p>Transcript 3: Interviews: Wisam Abdigan Sebastian  Participant name kept confidential.</p> <p>Sebastian: So what activities do you take part in? And why do you take part in those activities? For example, do you play football? Do you watch movies? Stuff like that.</p> <p>Participant: No, I don't have time for that. I just go university and then go to work.</p> <p>Abdigan: do you do any social activities?</p> <p>Participant: ....</p> <p>Wisam: Do you have any hobbies?</p> <p>Participant: I read a bit, and I watch a bit of TV shows. And according to my friend I clean obsessively.</p> <p>Abdigan: So why do you read?</p> <p>Participant: because I enjoy reading, [also] watch some tv shows, I really enjoy it.</p> <p>Wisam: so how do you manage your scheduled activities to avoid stress and collision of events?</p> <p>Participant: I try to plan my day by writing it down, but I always mess up.</p> <p>Abdigan: If you were ever to use a time management app do you prefer a sound based notification or a screen viewed notification to remind you about upcoming events and why?</p> <p>Participant: screen, because my phone is always on silent. And maybe I forget it, and on screen I actually see it and it actually reminds.</p> <p>Sebastian: What features should a time management app have to plan your events?</p>	
<p>Participant: date, and the days and I prefer time.</p> <p>Sebastian: like a calendar?</p> <p>Participant: yes, like a calendar.</p> <p>Sebastian: anything else, like for example, notification maybe text notification.</p> <p>Participant: Yeah, maybe a normal notification, on the phone.</p> <p>Wisam: Do you think defining a start time and a finishing time for each task allows a more effective time usage (why or why not)?</p> <p>Participant: Not really, because of you plan your time you going to mess that up, or I feel like I would. Because there is a lot of pressure, I want to start at 7 and I want to finish at 3. imagine I don't do that, I will feel kind of useless.</p> <p>Abdigan: Do you think arranging tasks in sub categories is important to be aware of your time? Have you ever found other ways to manage your time that were rewarding or that made your time more effective?</p> <p>Participant: Yeah, for example, if I have a deadline for something, and I have another deadline for but that's later, I prefer to do the one which is first.</p> <p>Sebastian: Have you ever found other ways to manage your time that were rewarding or that made your time more effective?</p> <p>Participant: No not really.</p> <p>Wisam: Describe a situation where you have been required to do a number of things at the same time. How did you handle it?</p> <p>Participant: yeah, usually when I go to work at the afternoon, I say after the work I will do something but I end up not doing it. Because I end up staying at work long which I don't expect that. So basically I can't finish my tasks because something else might come up.</p> <p>Wisam: Normally, how long does it take you to start a project or an assignment before the given deadline? Why?</p>	
	<p>Participant: To be honest it depends on how important it is, if it's a very important assignment, I prefer to start planning straight away. But like I said it depend on how important it is and how far is the deadline is.</p> <p>Sebastian: Do you find it helpful to look at your timetable to remind yourself or what time your classes or seminars are? Why or why not?</p> <p>Participant: yeah because I tend to confuse the days, its really important that I look at it every day, so I need to look at it a couple of times. So actually I think its useful to have my timetable.</p> <p>Abdigan: How do you track your tasks status?</p> <p>Participant: I don't really don't, I do something and I get done with it.</p>

**Transcripts 4:**

**Interviewers:**

Wisam

Abdigan

Sebastian

Participant name kept confidential.

*Abdigan:* what activities do you take part in? And why do you take part in those activities?

*Participant:* The activities I take part in are, I read, I watch TV shows, I go to work, my work is teaching kids, and I do them because I enjoy them.

*Wisam:* so how do you manage your scheduled activities to avoid lateness and collision of events?

*Participant:* I just plan it in my head in the morning so when I wake up I know what to do through the day.

*Sebastian:* If you were ever to use a time management app do you prefer a sound based notification or a screen viewed notification to remind you about upcoming events and why?

*Participant:* screen, because its easier and more visible and I can see it.

*Abdigan:* What features should a time management app have to plan your events?

*Participant:* notification, calendar, date and time and different categories.

*Wisam:* Do you think defining a start time and a finishing time for each task allows a more effective time usage (why or why not)?

*Participant:* No because I wont stick to the time limit, I will either be late or wont start on time.

*Sebastian:* Do you think arranging tasks in sub categories is important to be aware of which events are more important than others?

*Participant:* yeah because then I will know what to do first and what to do last.

*Wisam:* Have you ever found other ways to manage your time that were rewarding or that made your time more effective?

*Participant:* writing a list and letting people remind me what to do.

*Abdigan:* Describe a situation where you have been required to do a number of things at the same time. How did you handle it?

*Participant:* At work, when I teach kids I have to mark books and have to finish before the lessons finish. And each child on time.

*Sebastian:* Do you find it helpful to look at your timetable to remind yourself of what time your classes or seminars are? Why or why not?

*Participant:* yeah, I check every morning.

*Sebastian:* How do you track your tasks status?

*Participant:* I just double check where I am where I stopped, if half way or nearly finished.

**Transcripts 5:**

**Interviewers:**

Wisam  
Abdigan  
Sebastian

Participant name kept confidential

*Abdigan:* what activities do you take part in? And why do you take part in those activities?

*Participant:* I go to gym, I like to do it as a stress relief and for fun.

*Wisam:* so how do you manage your scheduled activities to avoid lateness and collision of events?

*Participant:* whenever I have a free time, I just set a date, so I never miss anything for gym. Whenever I have a free time slot I go to the gym.

*Wisam:* If you were ever to use a time management app do you prefer a sound based notification or a screen viewed notification to remind you about upcoming events and why?

*Participant:* screen, because whenever I look at my phone am seeing whats on my screen, so I have a visual reminder, instead of the sound I prefer that way.

*Wisam:* What features should a time management app have to plan your events?

*Participant:* a snooze button, because when it comes up I can snooze it even if I do miss it can come up again.

*Abdigan:* Do you think defining a start time and a finishing time for each task allows a more effective time usage (why or why not)?

*Participant:* Yes, because it gives me a pressure to complete within that time, I prefer it that way because of the pressure.

*Abdigan:* Do you think arranging tasks in sub categories is important to be aware of which events are more important than others?

*Participant:* Yeah, because if I have to rank and see which one is more important and which one I can delay it.

*Wisam:* Have you ever found other ways to manage your time that were rewarding or that made your time more effective?

*Participant:* I have a calendar, I have a massive calendar in my room, that have sticker and notes that remind me of what to do.

*Abdigan:* Describe a situation where you have been required to do a number of things at the same time. How did you handle it?

*Participant:* today I had so many things due I just sat a reminder on my phone so that it goes off and remind me of what to do.

*Wisam:* Normally, how long does it take you to start a project or an assignment before the given deadline? Why?

*Participant:* it takes me ages. Until it near the deadline, I will start it. I think it's because am lazy.

*Wisam:* Do you find it helpful to look at your timetable to remind yourself of what time your classes or seminars are? Why or why not?

*Participant:* yeah, for example if I have a deadline, it gives a reality check, and it scares which then it makes me do the work.

*Abdigan:* How do you track your tasks status?

*Participant:* When I complete it, I mark it off.

Transcripts 6:

Interviewers:

Wisam

Abdillgani

Sebastian

Participantname kept confidential.

*Abdillgani:* what activities do you take part in? And why do you take part in those activities?

*Participant:* I teach dance, that what I mainly do. I do it because its fun And I do it because I enjoy doing it.

*Wisam:* so how do you manage your scheduled activities to avoid lateness and collision of events?

*Participant:* I do a schedule, so I know what time when I need to go to my dance class or when to go to university so I make sure it does not overlap.

*Wisam:* If you were ever to use a time management app do you prefer a sound based notification or a screen viewed notification to remind you about upcoming events and why?

*Participant:* I think I will choose the sound one, because normally I don't have my phone on me, the noise will make me check my phone. I also like the screen notification to be together with the sound one.

*Wisam:* What features should a time management app have to plan your events?

*Participant:* Notification, so I actually know what to do because it will pop up on my phone.

*Wisam:* Do you think defining a start time and a finishing time for each task allows a more effective time usage (why or why not)?

*Participant:* Yeah it does, because I would know, if I have a piece of assignment now, I would rather have the deadline so I can work through because I like to start my work so I am able to get it done way before the deadline.

*Wisam:* Do you think arranging tasks in sub categories is important to be aware of which events are more important than others?

*Participant:* Yeah it does.

*Abdillgani:* Have you ever found other ways to manage your time that were rewarding or that made your time more effective?

*Participant:* .....

*Abdillgani:* Describe a situation where you have been required to do a number of things at the same time. How did you handle it?

*Participant:* At second year we had so much assignment thrown at us that were due at the same day, so I made a timetable so I can do an assignment on a day and another on another day.

*Wisam:* Normally, how long does it take you to start a project or an assignment before the given deadline? Why?

*Participant:* it does not take me that long because I like to get things done quickly. So as long as I given the deadline I will start on the same day.

*Wisam:* Do you find it helpful to look at your timetable to remind yourself of what time your classes or seminars are? Why or why not?

*Participant:* yeah so I don't turn up late for my seminars.

*Abdillgani:* How do you track your tasks status?

*Participant:* I don't check, I just do it.