



James Burton

Study Skills: Reflection on Study Skills

University of Wales Trinity St Davids
Ordnance, Munitions and Explosives (BEng)

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Academic integrity declaration

I declare that:

- the assignment submitted has been written by me alone.
- the assignment submitted has not been previously submitted to this university or any other.
- that all content, including primary and/or secondary data, is true to the best of my knowledge.
- that all quotations and references have been duly acknowledged according to the requirements of academic research.

I understand that to knowingly submit work in violation of the above statement will be considered by examiners as academic misconduct.

Abstract

This assignment has been written to demonstrate a level of academic report writing skills to ensure the student has the necessary skills to be able to write academic reports required by the University of Wales Trinity St David (UWTSD), for the purpose of the successful completion of the Ordnance, Munitions and Explosives (OME) Degree apprenticeship program (Beng).

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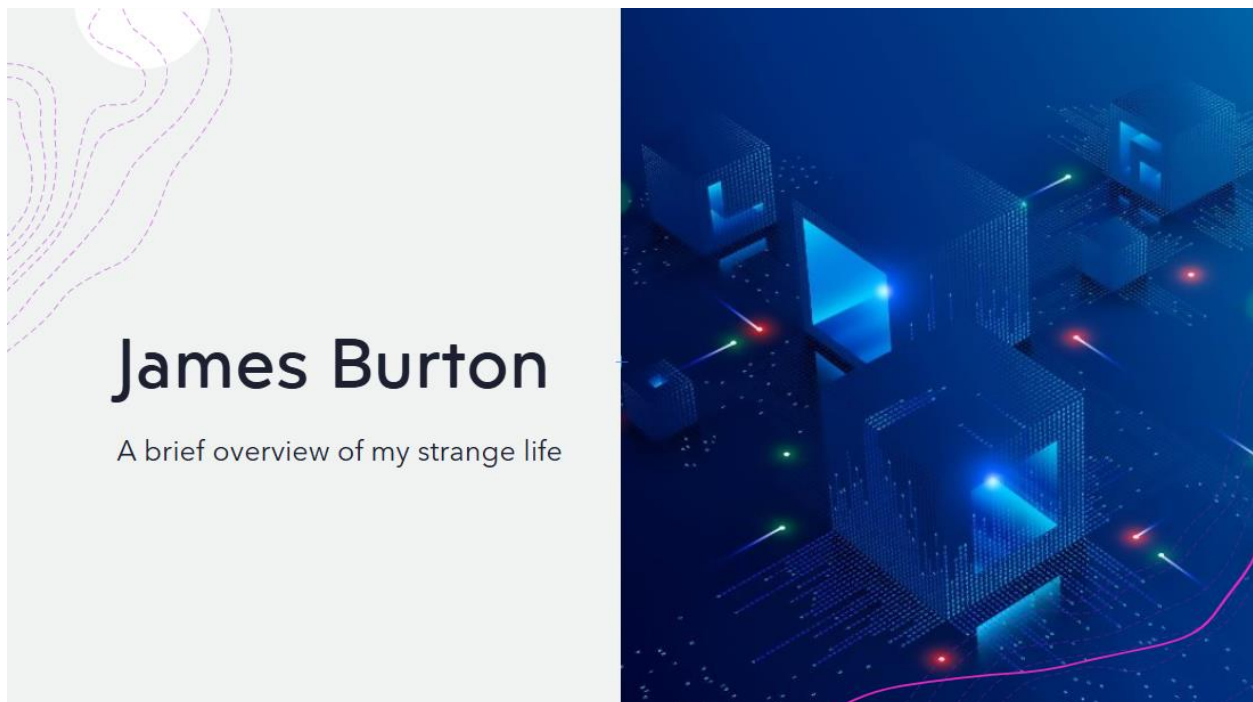
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1. Presentation

A Presentation was delivered by the student to show their ability to construct, deliver and evaluate information. For the purpose of this assignment the subject of the presentation delivered was a brief on themselves, with other students analysing their presentation skills and providing feedback.

This included brief information about the student such as their name, a domestics slide, where they were born, the circumstances surrounding their birth, a list of some of their hobbies, some slides giving some detail of their hobbies and finally a slide acting as a placeholder to give time for question asking.

Below are a few screenshots of the presentation slides:



Born in 1991

- + Born in the year 1991
- + 11 days late
- + Born on 01/01/1991
- + One of 11 babies born in the hospital on that day



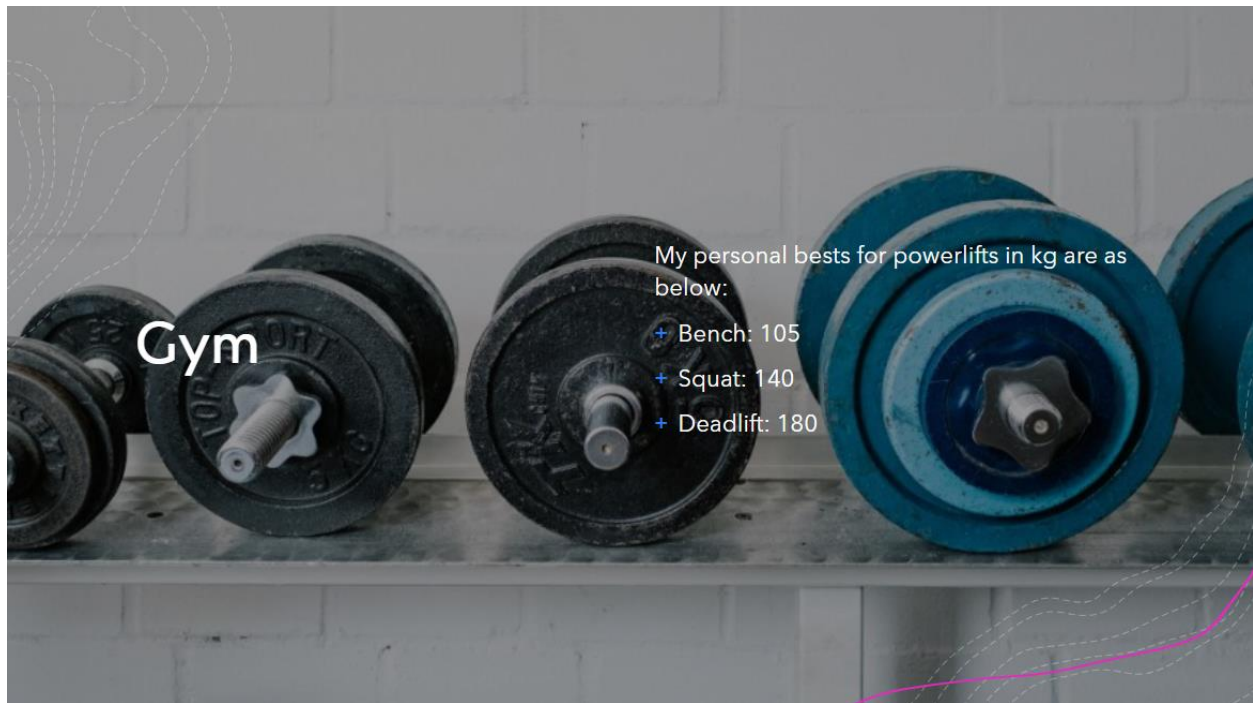
Coincidence?

You decide

Hobbies

- + Going to the gym
- + Gaming
- + Animals (in particular my dog)





[1]

Feedback for the performance of the student's presentation was provided in the way of a feedback form from at least 3 other students of whom witnessed the presentation, as shown in Appendix A.

Following the successful delivery of the presentation and collation of feedback forms, the student was required to insert evidence of these objectives within this report.

2. Skills Evaluation

2.1 Skills Required for Successful Learning in a Higher Education Environment

A number of skills are required in order to successfully learn in a Higher Education (HE) environment, such as organisational skills, the ability to interpret academic journals, note taking which is suited to the individual reading, time management, and many other skills.

As described in '*Skills for Success – Personal Development and Employability*' [2] the skills required can be broken down into 4 sections:

1. Self-management
2. People and Task management Skills
3. Extending your Thinking
4. Employability: Enhancing your career prospects

With regards to successful learning in a HE environment, the first 3 sections of this particular piece of writing are especially useful for understanding, as a number of the skills involved are easily transferrable, as this book is specifically aimed at employment.

2.2 Generic, Transferable Skills Employers Look for in Prospective Job Candidates.

Some of these skills are also transferable to be applied in a professional environment, including report writing skills, information interpretation, time management, organisational skills and the ability to appeal to a target audience. These are especially important to employers to ensure that the prospective employee can deliver a reasonable work output whilst maintaining a level of professionalism, transferability and concision, so that they maintain maximum efficiency and effectiveness, as well as in the event that they were unable to work on a given task then another employee could easily pick up the task.

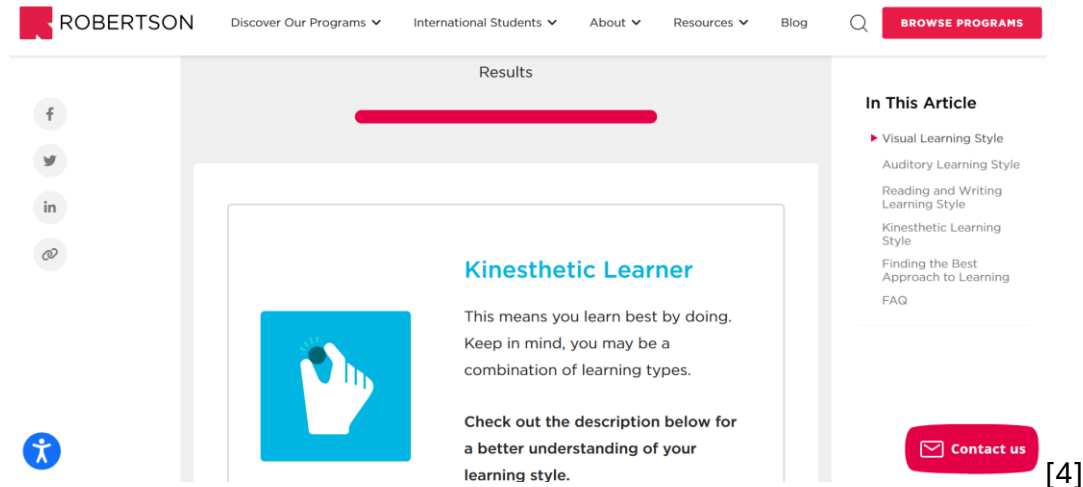
2.3 Self Evaluation

It is important to evaluate oneself, as it can provide insight into strengths and weaknesses as well as understanding of where someone may fit into a team or position. It ensures that a person is performing to the best of their ability due to being suited for the tasks they are given, as described as a quote by Albert Einstein: "Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid." [3].

For this assignment's purpose, it was required that the student conducted a level of self-evaluation, either via feedback forms or independent research such as self-assessment tools.

2.4 Self Evaluation Results

As part of the self-evaluation process, the student was required to undertake several activities to evaluate themselves. One process included taking a 'What type of learner are you?' quiz, which used a number of questions to evaluate and identify the type of learner that the student is. The results can be seen below:



This is important to understand so that any form of learning can be conducted in a way which most suits the student, however it is not absolute, the student may find other learning methods such as reading/writing, listening and watching useful.

2.5 Short Term and Long Term Goals

Evaluating and choosing both short term and long term goals is an important part of both academia and professional development. It not only helps towards creating a path to success, but it allows understanding of the steps required to achieve the goals, alongside giving a sense of achievement when short term goals are completed. Short term goals can feed into long term goals and all of which can be tracked via the use of action plans, Gantt charts and Key Performance Indicators (KPIs), as described in the next section.

For the purpose of this assignment, the following short term and long term goals have been decided:

Short term goals:

- Ensure work is completed ahead of the deadline
- Diligently attend every lecture
- Monitor progress for the duration of the degree apprenticeship
- Regularly review tasks to ensure nothing is being missed

Long term goals:

- Complete the degree apprenticeship
- Achieve a 2.1 or first-degree honors
- Use acquired degree to progress career
- Consistently monitor progression requirements and undertake any further study required.

2.6 Action Plan

Action plans form a key pillar in the planning and implementation stage of any project, assignment or task. They are broken down into steps or tasks to ultimately achieve a goal and can be monitored via the regular updates and reviews of any respective lists, spreadsheets, charts and reports. A few examples of action plans are:

- Project Specifications
- Work instructions
- Task lists
- Professional Development Plan (PDP)

The action plan identified by the student to improve their academic performance has been understood as using a PDP. This will allow the student to set reasonable goals, with regular reviews of the progress against those goals to ensure that progress is being made or to identify ways to enable the student to progress toward those goals, outlining the specifications of the to goals and objectives, as well as identifying stretch goals in the event an opportunity presents itself. Four goals identified by the PDP can be found in a completed PDP form in Appendix B [11].

3. Application

3.1 Looking after your data

It is important to manage data in a way that protects it. This includes ensuring its location is known, as well as is backed up on different devices or systems. This provides a robust level of security so that in the event of an incident which would cause the primary storage method to be compromised, there is a backup. For this assignment and throughout the course of the degree apprenticeship the three storage methods which will be used will be primary storage on the OneDrive system, secondary storage on a local hard drive and tertiary storage on a removeable storage device.

3.2 Time management and self-organisation

Time management is important in both an academic and professional environment to ensure deadlines are met as well as allowing time for evaluation and adjustment. This can be undertaken via the use of various time management methods such as Gantt Charts, Calendars, KPIs and reminder notices.

For the purpose of this assignment, it was important for the student to self-manage their time and resource to ensure that the assignment was not only progressed effectively, but finished on time, to avoid any lateness of submission and ultimately lost marks as a result of poor time management. An example of this in the form of the student's calendar schedule can be found in Appendix C.

3.3 Independent study

For the independent study section of this assignment, it has been specified that a literature review of the underwater explosive Torpex. The literature review is divided into sections describing the history of the explosive, how it was developed and how it has been improved since.

3.3.1 The history of Torpex

Torpex is a powerful underwater explosive derived from 42% RDX (Research Department eXplosive or Royal Demolition eXplosive[5]), 40% TNT(Trinitrotoluene) and 18% aluminium[6]. It is a high explosive compound developed for use toward the end of WWII, as a reliable, effective and efficient explosive.

The most notable use of Torpex in history was during late 1942, as a result of the development and use of RDX during the war, driven by the requirement by Winston

Churchill to utilize higher explosives rather than heavier explosives, making them more versatile, efficient and effective: *"It would be better to drop plenty of high explosive in any form of thin walled container than waste so large a proportion of our bombing effort in carting old iron to Germany."* – Lord Cherwell [7].

3.3.2 Development of TORPEX

It is important to understand RDX before looking at how TORPEX was developed as a result. RDX development began in 1899 by Henning, when cyclotrimethylenetrinitramine, later known as Cyclonite, was discovered as a high explosive compound, although its original intention was to be used for medicinal purposes [6]. Studies and development in its use, however, did not begin until the 1920's, when its high sensitivity and high production costs initially proved prohibitive of its use. However, this did not deter British researchers at Woolwich Arsenal, London, where in the 1930's they had developed a way to create a more stable version of the compound using 60 percent cyclonite with 40 percent TNT and beeswax to produce the first iteration known as Composition B, which boasted a 30-40 percent greater explosive power than the conventionally utilized TNT. As a result of the continuous development of Cyclonite, it was later renamed RDX for security purposes.

Although RDX supplies were not able to be sufficiently produced for requirement, two resolutions were considered: firstly, to look across the Atlantic for assistance in production, as well as to research ways to get more bang for buck from the compound. This resulted in breakthroughs in synthesis of the compound as well as the construction of production facilities in Quebec and East Tennessee. Now with RDX being produced in quantities, it was understood that compound B would have certainly made a greater difference earlier in the war: *"Had a much larger percentage of bombs been filled with Composition B and been used earlier, the effectiveness of the bombing campaign against Germany might have been greater."* – C.F. Baxter.[8]

This led to the development of Torpex, which reduced the requirement for RDX by replacing 18% of the composition with Aluminium powder, which acts as a high energy carrier and raises the heat of the explosive transformation and therefore yields a higher efficiency of any explosive or blasting operation [9]. Torpex was mainly used in two applications: the British 250-pound Mark IX aerial depth bombs, which proved to be the deadliest weapon against German U-boats, and the American Mark 14 torpedoes carrying 1,100-pound Torpex warheads, delivering an explosive force 150 percent greater than TNT alone, devastating Japanese shipping.[7]

3.3.3 Replacement of TORPEX

Whilst effective, in the search for more efficient and effective explosives, TORPEX was eventually replaced by the Composition HBX, which is described as desensitized TORPEX [10], and later developed into H6 in the early 1950's.

4. Conclusion and Evaluation

During the course of this assignment, the areas which have been covered are presentation, skills evaluation and application.

4.1 Presentation

The presentation was successfully executed, with feedback given to the student and the student taking this feedback on board, including to ensure that any future presentations should include relevant background imagery, to slow down and spend more time expanding on subject and additional information on future aspirations.

4.2 Skills Evaluation

The skills evaluation undertaken during this assignment has been informative to the student, identifying learning styles and understanding the steps toward improvement, both academically and professionally.

4.3 Application

Application of study skills are easily the most complex area of this assignment; however, the student successfully undertook the challenge and researched the given assignment areas. The independent study section held particularly high value as it ensures the student can apply research skills within the OME environment, providing clear and concise results. The student could improve by increasing the depth in which they learn and write about the independent study subject (TORPEX), however this area of focus will improve throughout the progression of the degree.

5. References

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6. Appendices

6.1 Appendix A – Feedback reports from Presentation

PLEASE COMMENT ON AREAS IN WHICH YOU FEEL THAT YOU HAVE PERFORMED WELL	PLEASE COMMENT ON AREAS YOU FEEL THAT YOU NEED TO DEVELOP
High confidence, clearly comfortable in front of an audience, upbeat demonstration, clear knowledge of subject matter	Did the background imagery of the presentation have any meaning? What aspirations do you <u>have</u> and do you feel that this is something that may be added? While you let us know a lot about your life in terms of your hobbies, holidays, pets <u>etc</u> what did you really tell us about YOU?

PLEASE COMMENT ON AREAS IN WHICH YOU FEEL THAT YOU HAVE PERFORMED WELL	PLEASE COMMENT ON AREAS YOU FEEL THAT YOU NEED TO DEVELOP
Presentation was concise and to the point Perfect amount of information on the presentation Very accessible presentation • Fonts • <u>Colour</u> scheme • Good shade of <u>colours</u> for clarity The Contents of the PPT were like headings not <u>to</u> much to read so doesn't divide the listeners attention. No flashy animations	Initially <u>presentation</u> was short but then was expanded with further questions. Felt a little rushed due to lack of slides.

6.2 Appendix B – Professional Development Plan

Professional Development Plan			
Employee name	James Burton	Job title	Senior Technical Specialist
Department	MOD	Direct supervisor	S. Hardcastle
Start date	01/12/24	Review date	01/04/25
Professional goals to achieve <i>What are your desired career advancements goals for the next 12 months?</i>			
1. Get promoted to a leadership position 2. Improve efficiency within the sector by introducing modern and innovative ways of working 3. Achieve Ieng status 4. Successfully complete OME degree with highest attainable grade			

6.3 Appendix C – University Calendar Timetable with Scheduled learning slots

		13:30 Applied Computing S5 Hybrid IQ002 and Teams		
2	3	4	5	6
11:00 Study Skills (ACDB401 IQ108 (IQ - SA1 Campus)	09:00 Study Skills (ACDB401 IQ307 (IQ - SA1 Campus)	09:00 Mathematics (ACDA40 IQ002 (IQ - SA1 Campus)	09:00 Mathematics (ACDA40 FF002 (Fforum - SA1 Campus)	09:00 Mathematics (ACDA40 IQ001 (IQ - SA1 Campus)
14:00 Mathematics (ACDA40 IQ108 (IQ - SA1 Campus)	11:00 Study Skills (ACDB401 IQ110 (IQ - SA1 Campus)	11:00 Mathematics (ACDA40 IQ101 (IQ - SA1 Campus)	14:00 Study Skills (ACDB401 FF002 (Fforum - SA1 Campus)	
	13:00 Mathematics (ACDA40 FF004 (Fforum - SA1 Campus)			
9	10	11	12	13
10:30 Learning Support Mee Microsoft Teams Meeting	09:00 Study Skills (ACDB401 IQ307 (IQ - SA1 Campus)	09:00 Mathematics (ACDA40 IQ002 (IQ - SA1 Campus)	09:00 Mathematics (ACDA40 FF002 (Fforum - SA1 Campus)	09:00 Mathematics (ACDA40 IQ001 (IQ - SA1 Campus)
11:00 Study Skills (ACDB401 IQ108 (IQ - SA1 Campus)	13:00 Mathematics (ACDA40 FF004 (Fforum - SA1 Campus)	11:00 Mathematics (ACDA40 IQ101 (IQ - SA1 Campus)	14:00 Study Skills (ACDB401 FF002 (Fforum - SA1 Campus)	
14:00 Mathematics (ACDA40 IQ108 (IQ - SA1 Campus)				