**Reflective writing**

**Amongst the entire module I have completed since I began my postgraduate diploma in data science, none has made me feel more relaxed and at ease as my deciphering big data module. Attending and watching the recorded seminar videos sent to me by my tutor did not only sharpen my understanding greatly on data wrangling but also provided me with the necessary basis and practical skills on how to use SQL for database creation and python application for web scrapping to a greater level. From critical thinking and problem-solving techniques to research and effective communication and literacy skills, this module has equipped me to handle data wrangling, SQL and web scrapping problems in real-world contexts. In this reflective essay, I would explore how the skills I have developed and the knowledge I have acquired have had an effect on both my personal and professional growth.**

**The skills I acquired during this module, with several hours of research, learning and practice using YouTube videos, provided a solid foundation in my understanding and solving of data wrangling problems, in database design and web scraping problems.**

**My team designed and built a single logical database. After several meetings, discussions and suggestions, we finally agreed to build the Evans cycle logical database. To design our Evans cycle logical database, we employed both logical and physical data modelling techniques. We used Python to clean the data and remove outliers.**

**After completing our logical data modelling, I began with our physical design. I started first by setting up the MYSQL community server in my system to create the database schema. Next, I added constraints to some of the attributes. After adding constraints, I established relationships between the tables by setting up foreign keys. Next, I used the ADD foreign key followed by the attribute to reference the Primary key. After which I created tables for the other entities. I retrieved the data from the database using the SELECT statement. In addition, I used python to scrape the content of both static and dynamic websites. I also designed my e-portfolio using GitHub desktop and hosted it on GitHub.**

**From my previous module, I discovered, I learnt programming languages better and faster using teaching videos such as YouTube rather than reading from a textbook. Therefore, I followed the same approach to learn how to scrape a website using beautiful soup, how to design an e-portfolio and how to design and create databases using SQL. Gibbs' Reflective Cycle (1988) gives a structure to learning from experiences. It offers a framework for examining experiences, and given its cyclic nature lends itself particularly well to repeated experiences, allowing one to learn and plan from things that either went well or did not go well. My tutor also played a huge part in calming my nerves after our first submission because I had some anxiety about how to scrape a dynamic website with beautiful soup since my python program repeatedly returned a 403 error. I requested for a meeting, which he honored. He explained to me the. This greatly reduced my anxiety. Parker et al. (2004) found a negative association between anxiety and students’ perceived success in a course. I was motivated to attend the seminar not only because of the teachings but also because of the lessons I learnt from the interactions and questions my fellow students from different cultural backgrounds asked and the solution our tutor provided. The social theory of learning suggests that individuals actively construct their knowledge based on their experiences, interactions with others, and the cultural context in which they live.**

**After I received the highest grade in my team assignment, I was excited with increased belief for more success in my other assignments. My tutor took his time during our last seminar to explain what he expected from us in our last two assignments, and this made me feel motivated and in control how to go about answering my other assignment questions. According to Pekrun's control-value theoretical model (2006), perceived control over outcomes and achievement activities increases positive emotions and decreases most negative emotions. Cheng Xie, et al. examined the relationships among motivational beliefs, negative emotions, and academic achievement in college online students. Motivation had a negative correlation with students’ negative emotions**

**Thinking carefully about the time I spent in this module; I am now confident in my ability to design and create databases using SQL database management systems, scrape both dynamic and static websites and design and host e-portfolio on GitHub effectively. The experience and skills I gained has propelled me to be interested in future learnings in data wrangling and database design that would enable me to identify meaningful patterns, to process and manage large datasets efficiently for future growth and make data driven decisions within the financial service industry where I currently work. I can now put to use the skills I have acquired to segment customers effectively and to better assess the value of my company’s assets.**

**References:**

Ryan (2011) Improving reflective writing in higher education: a social semiotic perspective. Teaching in Higher Education. Available at: [Improving reflective writing in higher education: A social semiotic perspective](https://www.researchgate.net/publication/254348512_Improving_reflective_writing_in_higher_education_A_social_semiotic_perspective) (Accessed: 4 October 2024).

# Patti C. Parker (2020) A motivation perspective on achievement appraisals, emotions, and performance in an online learning environment. Available at: [A motivation perspective on achievement appraisals, emotions, and performance in an online learning environment](https://www.researchgate.net/publication/350170193_A_motivation_perspective_on_achievement_appraisals_emotions_and_performance_in_an_online_learning_environment) (Accessed: 5 October 2024).

# Queen Margaret University (2020) Effective Learning Service (date unavailable).  Reflection. [Online].  Edinburgh. Available at: [Reflection| Effective Learning Services | Queen Margaret University, Edinburgh](https://www.qmu.ac.uk/study-here/services-for-students/support-for-learning/effective-learning-service-els/reflection/) (Accessed: 7 October 2024).

Novak (2022) Factors that Impact Student Frustration in Digital Learning Environments. Available at: [Factors that Impact Student Frustration in Digital Learning Environments](https://www.researchgate.net/publication/375642634_Factors_that_Impact_Student_Frustration_in_Digital_Learning_Environments) (Accessed: 11 October 2024).

Wain (2017) Learning through reflection. Available at: [Learning through reflection](https://www.researchgate.net/publication/320342913_Learning_through_reflection) (Accessed: 15 October 2024).

Ashikuzzaman (2024) Social Constructivism Explained: How We Build Knowledge Together. Available at: [Social Constructivism Explained: How We Build Knowledge Together - Library & Information Science Education Network](https://www.lisedunetwork.com/social-constructivism-explained-how-we-build-knowledge-together/) (Accessed: 16 October 2024).

Gibbs (1988)Learning by Doing, A Guide to Teaching and Learning Methods by Graham Gibbs. Available at: [Learning by Doing - Graham Gibbs | PDF | Learning Styles | Experiment](https://www.scribd.com/document/396189261/Learning-by-Doing-Graham-Gibbs) (Accessed: 17 October 2024).