

Scholar Report

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Title of Scholarship Project:	Development of Student Skills in Reflection

The research you have conducted

Reflection is a particularly important aspect in developing oneself in various areas of professional and personal life. The extent to which reflection affects our cognitive development alongside its further application has been a keen interest of researchers since the 1910's. The implementation of reflective practices at University level allows students to improve on areas of weakness and find strong points to tap into their potential and overall understand themselves as they emerge from adolescence to adulthood. Therefore, the research I have conducted dives into students' ability to correctly self-reflect and how it has affected their future self.

This work was conducted in the School of Biomedical Sciences. Reflective essays are introduced to level 1 students. These essays are compulsory and required to be done at the end of the academic year. The research project conducted a thematic analysis to see how this would promote reflection.

Initially a literature review was conducted to provide more context around the current research on reflection in this area. This emphasised that reflection is an essential skill for fostering deep learning and critical thinking among students. However, the implementation of reflection in educational curricula often faces obstacles at various levels, including individual, institutional, and systemic. An improper understanding of reflection at individual level can lead to students engaging superficially without gaining all its benefits. At the institutional level insufficient training of educators can lead to poor reflective discussions and practices with students. Broader educational structures and policies can hinder the widespread adoption of reflection in curriculum causing the systemic obstacles [1].

As a part of this research thematic analysis was conducted across 11 reflective essays written by students. After conducting thematic analysis on 11 different essays written by students, some conclusions were made. Firstly, it was seen that various amounts of skills were found by students upon self-reflection and not all appeared in every single essay. Secondly 4 themes were generated, “Personal and Professional Skills”, “Personal Qualities and Strengths”, “Personal Weaknesses and Limitations”, “Personal Qualities and Strengths” and “Personal and Professional Skills”. Lastly the occurrence of these themes was calculated across these 11 essays. This was 51%, 18%, 17% and 14% respectively. This shows that overall reflective essays are beneficial as a wide range of aspects were covered by students. However, it also shows students did not feel comfortable identifying their areas of improvement. This research should build further in identifying barriers to reflection by introducing focus groups and interviews with students.

How the research work you have been undertaking is impactful and important

Reflective tasks allow students to accurately identify their strengths and alternatively their areas that need improvement. The research I have been conducting has been impactful because I have been learning where University level students feel the most comfortable verses reluctant to reflect on. This has led me to identify which aspects of reflection need more support. This is because tapping into students' full potential is only possible if reflective tasks are done correctly. Another reason my research is important is because focusing on individual student reflection allows for the identification of certain barriers. Studying these barriers to reflection through the literature review is impactful to cut through these barriers and allow for fruitful reflection of each student. Self-reflection of students leads to positive outcomes in their personal and professional life. Working on analysing reflective tasks gives room for ideas and improvements which will therefore lead to more fruitful reflection. This makes reflection a very important aspect in developing oneself. Overall, this research will help to inform changes to the reflective essays delivered in the School of Biomedical Sciences which roughly 300 students will complete in the upcoming academic year.

Activities you've been involved in to disseminate your research, including but not limited to attending conferences, producing research posters, and promotion of the programme.

I first disseminated my research to my fellow peers on the Laidlaw Scholarship Program as well as fellow course mates at university. Since reflective tasks are incorporated in the curriculum at university, I thought it would be interesting to share my work with my colleagues who have been involved in such tasks as well. I shared my results and my insights on the reflective essays and gained more perspective on my insights which helped build my research further. Additionally, it was required to make a research poster on the project conducted over the course of 6 weeks of the Laidlaw Program. I made my poster on PowerPoint, and I am to upload it on the Laidlaw Scholar Network and further upload it on LinkedIn. This will therefore reach the targeted audience in the upcoming weeks. Further, we are looking to submit an abstract of this research and present this work at the Leeds University Student Education Conference in January in 2025. I will be presenting my research poster at this conference which will therefore reach an even wider audience. I will also be presenting my research poster on a smaller scale in the presence of a few peers and educators in the upcoming week.

What impact conducting research has had on you

Since this was my first time conducting research project, I have learnt a lot. At first it was quite daunting and scary however this research has taught me patience. The thematic analysis was quite repetitive however it built patience as well as my ability to pick out core concepts from large passages. Conducting research has also given me more responsibility as an individual. Knowing that all the work I am doing will lead to final research outcome made me feel more responsible and careful in all the steps I took as well as all the work that needed to be done. This has had a lot of impact on me as an individual as now I feel like I can be in charge of tasks more than ever before. Gaining more patience has also added to my personal qualities as an individual that I can employ in further situations be it personal or professional. Conducting research has led me to think more critically and out-of-the-box pushing me to think beyond limits and boundaries. Being an undergraduate student finding opportunities to build your character is very important and conducting research has really done so. I feel more confident in my opinion on as it does impact how further research is conducted. Performing qualitative analysis has increased my comprehension skills and my ability to retain information. These transferrable skills can further impact my academic performance. Overall, taking responsibility of a research project has increased my confidence and responsibility as I learnt to work autonomously and solve challenges on my own.

What leadership skills you have gained from the research period

This research period has given me the opportunity to grow personally and gain transferrable skills that can be employed in the academic and professional world. In my first year of university, I mainly worked in the chemistry laboratory and followed instructions to perform an experiment, or I just attended lectures to retain knowledge. This research period however encouraged me to move beyond limitations and action on my own. I stepped out of my comfort zone and was in charge of tasks instead of following a set of instructions. I gained responsibility for my own choices, and I also learned to think more critically in order to get the job done well. Since this research period was set for 6 weeks, I learned to be conscious of my own time and organised certain tasks to make sure everything I wanted to do was done over this period of 6 weeks. This provided me with organization skills that can be used when deploying tasks to my peers in group work in the future. As this research was conducted alone without any peer to work with or PhD student to work alongside, I learned to handle work autonomously and take full control of the qualitative analysis. Finally working on research reports and posters has increased my responsibility and ability to pay attention to detail to make sure I have covered every area thoroughly which is an important skill leader should have.

What your future career, educational plans or continued research plans are

Initially starting my first year as a chemistry undergraduate student my future career plan has been to work in the chemical cosmetic industry. Working in the formulation of makeup and skin care products has always been a dream of mine since I became interested in the use of them. Regarding my educational plans, I am currently planning on finishing my bachelor's degree and later pursuing a master's however I do not want to limit my master's degree to chemistry. I plan on diving further and gaining a masters in pharmaceutical chemistry to broaden my knowledge on drug development which I think will help my future career plans. Finally, I plan on staying on the Laidlaw Scholarship Program as I have gained a lot of skills and confidence in just the initial months of it. As of my research plans, if given the opportunity to continue this research I would be more than happy to do so as I am very interested in this area of research and I feel like I have a lot of potential to add on further to this project and work harder.

Supervisor

Please comment on your scholar's research period, what you consider to be your scholars' strengths and which leadership attributes you feel your scholar has

demonstrated and is particularly skilled in. You could also identify areas which your scholar can develop further.

Zaina has developed several skills in qualitative research and reviewing the literature. She has taken a positive attitude to the research analysis and has persevered through some of the more repetitive stages of this analysis. Zaina has been inquisitive and has had some very insightful thoughts on the results that she has presented. One area that Zaina could develop further is aiming to tie all areas of a research project together and to not lose site of the initial project aims. This is often a more difficult task in some areas of scholarship research with reflective and qualitative ways of analysing data. In conclusions presented ensure to link back to the initial project aims and objectives. Overall, it has been a pleasure to work with Zaina on this project over the summer.

Signature of Scholar _____ Zaina Anwar _____ Date:
__26__ / __10__ / __2024__

Signature of Project Leader _____ Date: ____/____/____