Big Five Personality Traits and Self- Perceived Performance in the Four Pillars at RMC

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**Abstract**

Personality traits have been shown to predict performance across various organizational contexts. However, no prior research has examined how these traits relate to performance within the four-pillar program at the Royal Military College of Canada (RMC). This study investigated whether the big five personality traits predict self-perceived success in the academic, fitness, bilingualism, and military pillars at RMC; if gender differences between participants will influence the pattern of association between the big five personality traits and self-perceived success in each of the four pillars. Participants included 83 students (44 male, 37 female, 2 other) who completed the IPIP-NEO-60 personality inventory and self-report measures of perceived success in each of the four pillars. Independent t-tests and multiple linear regressions were conducted. Results indicated that the big five personality traits significantly predicted success in the academic pillar (with conscientiousness and neuroticism as significant predictors within the model), fitness pillar (with conscientiousness and extraversion as significant predictors within the model), and military pillar (with extraversion as a significant predictor within the model). T-tests revealed no significant gender difference in personality trait scores, except for neuroticism; however, gender specific regression analyses showed differing patterns of prediction for the academic and military pillars. These findings suggest that personality traits partially predict self-perceived success in three of the four pillars and highlight potential gender-based biases in how certain traits are perceived and evaluated in the context of the four pillars.

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**Big Five Personality Traits and Self- Perceived Performance in the Four Pillars at RMC**

**Background**

Personality traits describe individuals in terms of their behavior, thoughts and feelings to enable understanding of how individuals are both unique and comparable to other people. Personality traits are patterns of thoughts, emotions, and behavior that remain consistent over time and across different situations and contexts (Funder, 2016). The Royal Military College of Canada (RMC) is a military institution offering post-secondary education to members of the Canadian Armed Forces (CAF) who wish to become leaders in the CAF and obtain an undergraduate University degree. The environment at the RMC is demanding and expectations of students are high, requiring them to excel in the four pillars that make up their degree. This four-pillar system is made up of key achievements in four different domains deemed important for new officers to excel at. These pillars are the academic pillar, the fitness pillar, the bilingualism pillar, and the military pillar. The RMC accepts students from many different backgrounds and regions from across Canada, each of them with an individual and unique personality. The aim of this study is to determine if the big five personality traits can be used to predict student self-perceived performance in the four pillars at RMC. The realm of organizational psychology has long been interested in the link between personality traits and performance in the workplace, if there is a connection between personality traits and self-perceived success at RMC, it could be used for more rigorous selection processes or help to indicate if there are any potential biases that arise within the RMC evaluation system.

The big five personality traits are five clusters of personality traits that have been generally accepted as central to the description of human personality, and useful in predicting meaningful aspects of human performance in education, sport, language, leadership, and many more domains (e.g. Chen et al., 2022; Costa & McCrae, 1992; Johnson & Hill, 2009; Mammadov, 2021; Yang et al., 2024). Coasta and McCrae (1992) provide descriptive operationalizations of the five trait clusters that make up the model. One of the big five personality traits is openness to experience with people high in this trait being characterized as curious, creative, imaginative, and generally open minded. Conscientiousness is another, and includes characteristics such as being efficient, organized, reliable, thorough and responsible. Extraversion encompasses another personality cluster, extraverted people are often found to be active, assertive, energetic, enthusiastic, and generally outgoing. Individuals who score highly on measures of another cluster, agreeableness, are characterized as being appreciative, forgiving, generous, kind, sympathetic, and trusting. Finally, neuroticism is a dimension describing characteristics such as feeling anxious, self-pitying, tense, touchy, unstable, and full of worry. Each of these five personality clusters may influence the perceived performance of an individual in numerous ways, having real implications in the decisions and behavior that individuals exhibit.

**The Big Five Personality Traits and Performance in the Academic Pillar at RMC**

Officers in the Canadian Armed Forces are required to hold a bachelor’s degree from an accredited University. The Royal Military College is a military institution where both regular force members and reserve members can choose to complete a subsidized undergraduate degree to hold the title of officer. This is done in the hopes that having officers with more education will ensure ethical and sound conduct of themselves and their subordinates within the Canadian Armed Forces. The academic pillar is concerned with student performance in their chosen academic programs, and for a student to be successful in this pillar they must maintain a good academic standing in their classes and not have any failures on their student record (RMC, 2025). Students' academic progress is monitored at the squadron level and failure in this pillar can lead to disciplinary measures up to and including expulsion.

Openness to experience is commonly associated with academic achievement because the facets of openness are logically and empirically useful for academic performance. People high in openness are generally curious, independent-minded, and have educational aptitude (Gatzka, 2021). These characteristics help students to be more inquisitive and open to new learning. The current literature suggests openness to be positively associated with academic performance; for example, a study by Smith and colleagues (2024) examined ninth and tenth graders in two different French public schools in Quebec City. Participants were asked to complete a personality trait test and self-report their academic averages in both language arts and mathematics. They found that students who tended to report higher academic achievement also tended to score higher in openness to experience than the average population, suggesting that higher levels of openness are positively associated with higher academic achievement. It is important to note that this study was done on francophone secondary school students, and the current study examines anglophone and francophone post-secondary students at RMC, while there is an age gap and a difference in relative levels of maturity, their environments are still largely focused on academics. Similarly, a study by Schoeman and Kotzee (2022) looked at the big five personality traits and actual academic performance using a database of academic records. They examined the relationship between the big five and actual academic performance among students in a Master of Business Administration program and found that openness to experience had a strong positive association to academic performance (based on grades from the academic records on file). This means that there is a supported positive relationship of openness to experience in both actual (Schoeman & Kotzee, 2022) and self-perceived (Smith et al., 2024) academic performance. This finding indicates that students at the RMC may benefit from being higher in openness to experience as this personality cluster is seen to benefit students in their academic performance. Characteristics like educational aptitude, curiosity, and being open to learning new things may be positive and useful personality traits for students at the RMC.

Higher levels of conscientiousness have also been shown to predict higher academic performance. Vianello and colleagues (2009) examined how conscientiousness can impact academic performance of university level students by using a conscientiousness measure and two self-reported indexes of academic achievement (mean exam mark and mean number of exams successfully passed in one year). They found that students who score highly on conscientiousness are typically persistent, self-disciplined, and achievement-oriented, which can all contribute to better academic performance. Many studies about the importance of conscientiousness for academic performance exist in the literature. For example, a study by Meyer and colleagues (2024) examined conscientiousness and cognitive ability as predictors of academic achievement in German upper secondary school students across three domains (mathematics, German as a first language, and English as a foreign language) and four achievement measures (grades, final exams, standardized tests, and GPA). They found that conscientiousness had consistent positive associations across all domains. Similarly, Smith and colleagues (2024) examined how conscientiousness relates to self-reported academic achievement as well as self-perceived competence (SPC). Self-reported academic achievement was measured by asking francophone students their overall average in French, and overall average in mathematics, while self-perceived competence levels were determined using responses to the perceived competence scale which has questions like “I am good at schoolwork” (Harter, 1982). Students were grouped into five categories based on their self-reported academic achievement and their self-perceived academic competence: high achievers with high SPC, average achievers with average SPC, and low achievers with low SPC, low achievers with high SPC, and average achievers with low SPC. They found that students with higher conscientious scores were more likely to be grouped with students that are higher academic achievers (meaning they themselves are a high achiever) compared to groups of lower or average achieving students. In the context of RMC, this means that those higher in conscientiousness may have a higher academic achievement level when compared to those students with lower scores of conscientiousness who may have an average or lower level of academic achievement. These studies demonstrate that there is a positive association between conscientiousness and academic performance. The self-disciplined, achievement oriented, and organized nature of those who score highly on conscientiousness has been shown to predict academic achievement. Exam results, both self-reported and measured directly, are especially influenced by higher conscientiousness, consistent with the trait’s importance to proper study behaviors. Because of this, students at RMC who score higher on conscientiousness may also see higher self-perceived success in the academic pillar.

Studies of extraversion and its effects on academic achievement have produced conflicting results. Mammadov (2021) proposes that extraverted people tend to be more energetic which could give them the potential to be more enthusiastic towards learning, but that they can also be more social which could lead to socializing both inside and outside of the classroom rather than spending time studying or paying attention. They found that extraversion was a predictor of academic performance at the elementary and middle school levels, but that it was not a predictor of academic achievement at secondary and post-secondary levels of education. This study suggests that the characteristics exhibited by individuals higher in extraversion may be more important for academic achievement at lower levels, but when students are at secondary or post-secondary levels and have more autonomy over their time management, extraversion becomes less and less predictive of academic achievement. It must be noted that elementary and middle school are also intense periods of social development, more so than subsequent levels which may have had a role in the results of this study. A study of university graduates conducted by Ciorbea and Pasarica (2013) found that extraversion had a weak association with academic performance when measured using final project grades; however, they found no significant correlation between extraversion and students overall grade at the end of their last academic year. The significant correlation between extraversion and final project grades was attributed to the requirement for interpersonal skills to coordinate with their advisors and teachers and thus extraverts were found to have a slight advantage. The finding that there was no significant association between extraversion and overall academic performance for the last year of university aligns with the findings of Mammadov and indicates that at the university level, extraversion may not play a significant role in the academic performance of students. These studies show that when performance requires high levels of interpersonal interaction, extraversion can be a good predictor of performance; but when focused, individual work is demanded, extraversion scores are less likely to be predictive of performance. In the RMC context, it is unclear how extraversion would affect the performance of students in the academic pillar as there are multiple factors (class types, socializing opportunities) to be considered as to how extraversion may affect this pillar.

Agreeableness also has mixed results when associated with academic performance. Some studies find that because agreeableness is associated with being cooperative, friendly, and obedient, it can facilitate better classroom relationships and better performance (Mammadov, 2021; Vedel, 2014). Other studies suggest that agreeable students are less likely to complain or ask questions, leading to poorer academic performance (Shah et al., 2017; Schoeman & Kotzee, 2022). Mammadov (2021) found a weak positive association between agreeableness and academic performance which was measured as grade point average (GPA), test scores, or course grade. Vedel (2014) found a significant relationship between agreeableness and the GPA scores of university level students but no significant effects in any of the other measures. Conversely, Schoeman and Kotzee (2022) found agreeableness to be negatively associated with academic performance. They observed that people who score low on agreeableness tend to be more skeptical and competitive which may lead to better overall performance. A study by Chamorro-Premuzic and Furnham (2003) used personality to predict academic performance with two longitudinal university samples. The results showed that agreeableness predicted first year exam performance, but there was no significant effect of agreeableness found on any other performance indicators (Second year exams, third year exams, total exam scores, and final project scores) which is consistent with the timing of the most intensive socialization for a post-secondary environment. Considering these contradictory findings, agreeableness overall may not produce significant results in predicting academic performance among RMC students. In current literature the direction or existence of the relationship between agreeableness and academic performance has not been well established. Without relative consensus on the relationship between agreeableness and academic performance there is not an expected relationship, especially since the studies that examined post-secondary aged participants (Chamorro-Premuzic & Furnham, 2003; Vedel, 2014) generally found non-significant relationships between agreeableness and academic performance.

Higher scores of neuroticism have been shown to predict poorer academic performance compared to lower levels of neuroticism. Shah and colleagues (2017) postulate that those who score highly on neuroticism may have less academic achievement due mainly to their tendency of being more impulsive and anxious. Research from the Seoul National University Hospital by Shin and colleagues (2023) measured the impact of neuroticism which includes academically relevant traits such as perfectionism and test anxiety on the College Scholastic Ability Test (CSAT), a standardized aptitude test for South Korean Universities. They found that those who did better on the CSAT showed less neuroticism than those who were lesser achievers on the test. Taken together, these studies suggest that higher levels of neuroticism should be associated with lower academic achievement because of the stress and anxiety levels that those participants with higher neuroticism experience. Since RMC is an academic institution with regular testing and exam periods, we expect to see the negative characteristics of neuroticism to impact students' overall perception of academic success. If students are often worried and anxious when completing regular testing, they may perceive themselves to be less academically successful than those who score lower on neuroticism and are therefore more likely to be more confident and calmer during their academic testing.

The breadth of research reviewed gives insight into how the big five personality traits may predict self-perceived academic performance at RMC. The first hypothesis for the current study predicts that the big five personality traits can predict self-perceived success in the academic pillar at RMC. Based on current research, self-perceived academic success is specifically expected to be positively associated with higher scores of openness to experience and conscientiousness, negatively associated with higher scores of neuroticisms, and will not be significantly related to extraversion or agreeableness.

**The Big Five Personality Traits and Performance in the Fitness Pillar at RMC**

Fitness makes up a large part of the identity of the Canadian Armed Forces. All jobs in the CAF require personnel to be physically ready for operational duties including combat. Fitness is a large part of life at RMC. The RMC page (2025) states that the fitness pillar is set up to ensure students remain active and are provided with physical education, intramural sports, varsity and recreational programs, and regular fitness testing. The emphasis on a fit student body at RMC is because all students will become leaders in the Canadian Armed Forces and will be expected to have a basic knowledge of health and fitness to help their troops remain healthy and in good shape. According to the RMC (2025) students must maintain good standing and pass each of the physical education classes including ATE101: Foundations of Fitness, Health and Sports and ATE301: Unarmed Combative, Military Skills and Individual Sports. Students are also required to participate in either varsity, recreational, or intramural team sports which occur weekly throughout each semester; to pass the PPT, a bi-annual physical performance test specifically for students at the RMC; and pass the FORCES test annually, a Canadian Armed Forces minimum physical fitness standard test which assesses CAF members for their fitness to perform operational duties. Physical activity classes, the PPT, FORCES tests and sports play an integral role in ensuring students at the RMC maintain the school's fitness standards and meet the requirements for passing the fitness pillar.

Openness to experience has not been clearly associated with fitness or sport performance in the current literature. Tomczak and colleagues (2024) determined that openness to experience concerns more cooperative and curious tendencies which could be logically connected to better teamwork or curiosity-based goal orientations; however, most of the literature focuses on sport performance and not much research has been conducted on other facets of fitness like fitness testing. Yang and colleagues (2024) conducted a meta-analysis of the relationship between the Big Five Personality traits and athletic performance. They calculated the average effect of openness on athletic performance in a range of studies within their meta-analysis which calculated athletic performance by their performance discerned by the coach, actual game performance, or achievements in sports. They determined that higher scores on openness in athletes did not help them achieve higher performance levels in their sports. Conversely, Li and colleagues (2024) examined the big five personality traits as they relate to performance of athletic individuals in sport. They determined that characteristics associated with high levels of openness like quick thinking and application of new ideas contribute to greater performance in problem solving and creativity within the athletic domain. Without a consensus from the literature and most of the current literature focusing on sport performance with a lack of research into the other facets of the fitness pillar (physical fitness testing, performance in fitness classes); it is unclear how openness will predict performance in this pillar. However, if openness does make students more willing to participate in new techniques and new experiences, this curiosity may bode well for performance in physical testing, since the ability for students to learn new techniques and training tools to improve their performance are built into the fitness pillar at RMC; being higher on openness to experience may enable better performance in this pillar.

Conscientiousness has been shown to help athletes perform better because of their more focused drive and determination to achieve their goals (Yang et al., 2024). Yang and colleagues (2024) found that conscientiousness helps athletes to achieve higher performance in sport because athletes who score higher in conscientiousness may have greater determination and expend greater effort to achieve their athletic goals (i.e. follow training regimens more consistently). Another study by Piepiora and Neczynska (2023) on Polish representatives in junior sport acrobatics examined the personality traits of higher-level athletes (considered master-class athletes) versus the personality traits of lower level or average athletes (considered a lower skill level). They found that high level athletes in acrobatics tended to have greater conscientiousness levels when compared with those athletes competing in a lower skill level. This indicates that higher levels of conscientiousness are positively associated with athletic achievement and achieving their goals. Conscientiousness in the context of the four pillars at RMC may positively associate with students' motivation to maintain an organized and focused training plan, be in the best physical shape, and compete at the highest level they can. The RMC requires dedication and perseverance to find success, because of this those who score higher in conscientiousness may perform better in fitness tasks due to their higher determination and drive.

Those who score higher on extraversion tend to be associated with being outgoing and more energetic, making it easier for them to integrate into a team (Zar et al., 2022). Research by Zar and colleagues (2022) investigated the relationship between the Big Five personality traits and sport performance for 376 team athletes in provincial, national, and international competitions throughout Iran. They investigated how sport performance is associated with extraversion among disabled athletes and found that extraversion had a significant effect on their performance. They reported that athletes who score higher in extroversion are more motivated to participate in sports and may have higher performance because they are more outgoing and sociable. Similarly, research by Butkovic and colleagues (2017) found that extraversion has been linked to greater physical activity levels. They found that people higher on extraversion reported exercising more intensely and more frequently, which could ultimately lead to better fitness and sports performance. The RMC requires consistent exercise and training to maintain a good physical fitness level but there is still a range of training effort among extraverted students which may allow them to perform better in the fitness pillar because they may be able to integrate more quickly and easily into their teams.

Currently, literature is largely silent regarding how agreeableness may influence athletic or fitness performance. The research done on agreeableness has mainly focused on its properties that benefit the team, such as being easy-going, appreciative, and kind. Research by Zar and colleagues (2022) speculate that agreeableness can be important for the athletic performance of the team because those high in agreeableness tend to thrive in team and group activities allowing them to perform to their full potential. They found that athletes who score higher on agreeableness were found to have a higher propensity towards team sports which benefited their interaction style and increased their performance. Similarly, Li and colleagues (2024) found that agreeableness can have a positive effect on the performance of the team because it improves team cohesion by creating a positive and cohesive environment within the team. Agreeableness can create a positive environment for team sport, but it has not been shown to be significant in any other fitness facet that would relate to the four pillars at RMC. While teamwork and cohesion are important aspects of team activities, this does not comprise enough aspects of the fitness pillar to offer meaningful insight into how agreeableness may affect performance in this pillar. Because of this, it is unlikely that agreeableness will be a significant predictor of performance in the fitness pillar at RMC.

Athletes' emotional stability (the opposite of neuroticism) is important to their performance in the fitness pillar because of the pressure that exists in fitness testing and in team competition. Fitness testing happens multiple times throughout the year with consequences ranging from remedial fitness classes to possible removal from the four pillars program for failing a fitness test. It is important for students to remain emotionally stable to perform their best in these stressful testing situations. Research by Contreras Jr. (2016) explored the relationship between competitive anxiety, neuroticism, stress, and coping with student athletes. They found that athletes who reported higher levels of neuroticism reported greater influence of negative mood states prior to competition, which worsened anxiety. This worsening anxiety has the potential to disrupt athletes’ performance by distracting them from their goal. Research by Li and colleagues (2024) describes neuroticism and anxiety in athletes as being more of an inverted U relationship. They state that some athletes find a moderate amount of anxiety and stress to be motivating and helpful in their performance, while excessive amounts or no amounts of anxiety and stress may have negative impacts. Because of the extreme pressure that some students feel regarding fitness testing at the college because failure in this pillar may be grounds for removal from the four pillars program, neuroticism should have a negative association with the fitness pillar at the RMC. Students who are highly neurotic may have extreme levels of stress and anxiety when it comes to fitness testing at the RMC causing a decrease in their ability to perform well in this pillar.

This literature review demonstrates a strong foundation for the expectation that the big five personality will predict self-perceived success in the fitness pillar at RMC. Based on the current research, performance in the fitness pillar is expected to be positively associated with higher scores on conscientiousness, extraversion, and negatively associated with higher scores in neuroticism. No association with agreeableness or openness to experience is expected.

**The Big Five Personality Traits and Performance in the Bilingualism Pillar at RMC**

Canada's two official languages are French and English and since the RMC is a federally run institution, they offer training and education in both official languages. Students who have completed a degree at the RMC are expected to have at least an intermediate ability to operate in their second official language. Students must attain a level of B-B-B (Intermediate in writing, comprehension, and oral interaction) or higher to graduate from the RMC. Failure to achieve a language profile of B-B-B or better by the time of graduation will result in a delayed graduation. RMC offers second language training classes throughout the school semesters, known as SOLET training, which can offer several hours of second language training per week to students who require additional help. Furthermore, students who have not attained their language profile by the time they complete Basic Military Officer Training are offered second language training during the summertime in lieu of further military training. Students are given ample opportunity to learn and practice their second language at RMC.

The bilingualism pillar is conducted in much the same way as the academic pillar. Because of their similar structure and competencies, many of the findings of the relationship between the big five personality traits and the academic pillar remain the same for this pillar. Like the academic pillar, the facets of openness to experience like flexibility and self-esteem could make those students who are higher on the trait more successful in the bilingualism pillar (Chen et al., 2022). Conscientiousness also has much the same explanation for why it would produce more success in the bilingualism pillar, as the academic pillar because it is associated with higher concentration on homework, better time management, effort regulations, and goal setting (Chen et al.,2022).

However, for the other three traits, there are slight differences that may impact the way in which the personality traits predict performance in the bilingualism pillar. First, Chen and colleagues (2022) suggest that those who score higher on extraversion are associated with sociability and being more outgoing. These characteristics may help with second language learning achievement because extraverts are more likely to practice their vocabulary in different social contexts. Second, Chen and colleagues (2022) found that Agreeableness has been shown to have a positive correlation with second language learning achievement because students who are higher on agreeableness tend to be better at interpersonal tasks and have more accommodating attitudes towards their learning environment and second language. And finally, Chen and colleagues (2022) found that neuroticism was the weakest correlation of second language and was effectively unrelated to performance in this domain; similar results were found in Cao and Meng (2020) study on personality traits as predictors of English achievement and global competence where they found that neuroticism was not related to Chinese students' English learning achievement.

Research on the association between the big five personality traits and second language learning achievement is not vast but is substantial to allow for hypotheses to be made. hypothesis one suggests that the big five personality traits can predict self-perceived success in the bilingualism pillar at RMC. Based on the current literature, performance in the bilingualism pillar may be positively associated with openness to experience, conscientiousness, extraversion, and agreeableness, and will not be affected by neuroticism.

**The Big Five Personality Traits and Performance in the Military Pillar at RMC**

The Royal Military College of Canada is a military institution that trains the future leaders of the Canadian Armed Forces. The military pillar is aimed at developing personal skills and abilities related to leadership and emphasizes the importance of integrity, ethical behavior, and professional responsibility (RMC, 2025). Students must participate in duty weekends which include military activities like drills, navigation, or other military skills. In the summertime, students are expected to complete basic training over the course of two summers. Students must also have completed a leadership position within the student barslate which is the student hierarchy that gives some students responsibility for leading others (e.g. Cadet Squadron Leader passes down directives from the Cadet Squadron Captain; or the Squadron Admin Officer handles the Administration for all the squadron). Failure to successfully complete a position within the barslate may cause a student to be unsuccessful in this pillar.

Openness to experience may play a crucial role in military leadership performance, it is associated with creativity, imagination, flexibility, and tolerance of ambiguity which, when lacking, could cause leadership in the military to become ineffective (Johnson & Hill, 2009). This may be because leaders oversee the planning and directly supervise the execution of the plans; if they lack the qualities described collectively as openness to experience, they may have difficulty adapting or creating their plans for the given situations. Johnson and Hill (2009) conducted a study of 57 Army National Guard Officers who were administered two NEO-PI-R personality tests (Costa & McCrae, 1992) and were told to answer the first one as if they were the most effective leader they had ever had, and the second one as if they were the most ineffective leader they had ever had. They found that effective leaders scored similarly to the average of the normative population for the NEO-PI-R on openness to experience, but ineffective leaders were found to score much lower than the average for the population. This research suggests that lower openness to experience may be associated with lower leader effectiveness. Another study by McCormack and Mellor (2002) examined the role of the big five personality traits in leadership for the Australian Military. They conducted a NEO-IP-R (Costa & McCrae, 1992) to measure the personality traits of the Australian military officers and rated their military performance based on several different ratings: attendance at the Command and Staff College, whether they are in the promotion course group, individual performance as rated by their superiors, and Evaluation Development Report-Officers (EDRO) scores (an annual performance appraisal used by the Australian Army). They found that openness to experience (was a significant predictor of leader effectiveness for officers of a senior rank level. These studies suggest that openness to experience is positively associated with leadership effectiveness, and it may play a role in determining a person's level of success in the military pillar at RMC.

Conscientiousness has been shown to be positively associated with military leader effectiveness. Research by Johnson and Hill (2009) describe highly conscientious leaders as being higher in dependability and achievement orientation. They found that effective leaders scored much higher in conscientiousness than did ineffective leaders meaning effective leaders are perceived as being more competent, orderly, dutiful, achievement orientated, self-disciplined, and deliberate in their conduct as a leader than are less effective leaders. These characteristics may help students at the RMC to become more successful in the military pillar. With the demands of an undergraduate degree and the requirements for students to work towards success in the other three pillars at RMC, practice being organized, reliable and thorough in a leadership position may help students to develop and consistently project desired leadership characteristics.

Many characteristics of extraversion are implicitly viewed as “leaderlike” traits such as dominance in social situations, sociability, and exhibiting warmth (Johnson & Hill, 2009). According to research by Landis and colleagues (2022) extroverted leaders are also seen as being more assertive which can be a good trait and increase perceptions of leader effectiveness. Johnson and Hill (2009) found that effective leaders were seen as significantly higher in extraversion than ineffective leaders. Additionally, effective leaders scored very highly in warmth, gregariousness, and assertiveness meaning that effective leaders are very friendly, outgoing and dominant. Taken together these findings suggest that RMC students that are high in extraversion should have better performance in the military pillar and be perceived as more effective in their leadership than those students who score lower on extraversion.

Leaders who score high on agreeableness tend to be more effective in a military environment than leaders who score lower on agreeableness. Johnson and Hill (2009) state that leaders high in agreeableness are seen as eager and willing to get along with others, while those lower in the trait may be seen as more disagreeable and uncooperative. They found that effective leaders had significantly higher agreeableness scores when compared with ineffective leaders. In addition, Javalagi and colleagues (2024) conducted a meta-analytic review and found that agreeableness was one of the stronger predictors of leadership effectiveness in cultures that value interdependence with one's group. Because the military is a large organization with a culture that heavily values interdependence and reliance amongst each other, agreeableness may be a strong predictor of leadership performance within RMC.

Leaders in the Canadian Armed Forces and at RMC need to be able to handle stressful situations and keep composed to effectively lead their subordinates and do their jobs. Traits associated with high levels of neuroticism such as anxiety, depression and frustration may make leaders seem less effective in the eyes of their subordinates. Research by Johnson and Hill (2009) found that effective leaders are rated as having much lower neuroticism scores than are ineffective leaders suggesting that lower levels of neuroticism may be associated with more effective leadership. Another study by Fosse and colleagues (2022) examined neuroticism as a precursor of destructive leadership style emergence. They found that angry hostility, a facet of neuroticism, was positively related to abusive supervision. Other facets like self-consciousness, vulnerability, depression and anxiety were all positively related to subordinates' perception of a destructive leadership style. This shows that certain facets of neuroticism can be a predictor of destructive leadership styles which is important at RMC because leaders are at the beginning of developing their leadership capabilities. Students who develop destructive leadership styles may be viewed less favorably by their subordinates and ultimately report less success in the military pillar.

To summarize, performance in the military pillar is expected to be positively associated with higher scores of openness to experience, conscientiousness, extraversion, and agreeableness, and will be negatively associated with higher scores on neuroticism.

**Gender in the Ability for the Big Five Personality Traits to Predict Self-Perceived Success in the Four Pillars**

Identity variables are individual characteristics that can qualitatively interact with personality traits to produce multiple types of behavior and experience. Gender, for example, changes perceptions of and by individuals, potentially biasing how individuals experience, express and perceive specific personality traits. In this study, we examine personality as it relates to self-perceived success, therefore if a personality trait is shown to be associated with self-perceived success in any of the four pillars at RMC, it is important that each group is equally likely to demonstrate that personality trait and in a way that is similarly perceived. If not, there is a potential that the system of the four pillars or the measures used in this study may be biased towards one group over another.

Some theories suggest that social and environmental factors (gender stereotypes, socialization pressures, social roles, gender status differences) may contribute to differences in personality between genders (Lippa, 2010). Current research has found some evidence for gender differences in the big five personality traits. Research by Weisberg and colleagues (2011) indicate that neuroticism, agreeableness, and extraversion scores differ between men and women. They found that women typically score higher than men in neuroticism and agreeableness; however for extraversion, women and men scored at similar levels but had disparities in what facets were more prominent based on gender (men scoring higher on assertiveness or women scoring higher on warmth, for example). These findings are consistent with research by Richard Lippa (2010), who examined gender differences in the big five personality traits and found that women score moderately higher than men on both agreeableness and neuroticism. Costa and colleagues (2001) also found that in the extraversion trait, women tended to score higher on the warmth facets while men tended to score higher on assertiveness. In the context of RMC, if it is found that personality predicts performance in the four pillars, it must be made certain that there are no adverse effects to people based on gender because if say women score higher on neuroticism and neuroticism is shown to negatively predict self-perceptions of success, there may be an underlying bias in the four pillars system. Similarly, if men and women are shown to have similar scores of a personality trait but that trait predicts self-perceived success differently for the two genders, they may be bias in the way the personality traits are expressed or perceived regarding the four pillars.

The large amount of research that has been conducted on the association between the big five personality traits and performance indicates that there may be an association between the personality scores for students at the RMC and their self-perceived success in each of the four pillars. The first hypothesis is that the big five personality traits will predict self-perceived success in each of the four pillars. Hypothesis two suggests that gender differences between participants will influence the pattern of association between the big five personality traits and self-perceived success in each of the four pillars.

**Table 1**

*Hypothesis 1*

|  |  |  |
| --- | --- | --- |
| H1.1 | Academic Pillar | The big five personality traits can predict self-perceived success in the academic pillar at RMC. Based on current research, self-perceived academic success is specifically expected to be positively associated with higher scores of openness to experience and conscientiousness, negatively associated with higher scores of neuroticisms, and will not be significantly related to extraversion or agreeableness. |
| H1.2 | Fitness Pillar | The big five personality traits can predict self-perceived success in the fitness pillar at RMC. Based on the current research, performance in the fitness pillar is expected to be positively associated with higher scores on conscientiousness, extraversion, and openness to experience, and negatively associated with higher scores in neuroticism. No association with agreeableness is expected. |
| H1.3 | Bilingualism Pillar | The big five personality traits can predict self-perceived success in the bilingualism pillar at RMC. Based on the current literature, performance in the bilingualism pillar may be positively associated with openness to experience, conscientiousness, extraversion, and agreeableness, and will not be affected by neuroticism. |
| H1.4 | Military Pillar | The big five personality traits can predict self-perceived success in the military pillar at RMC. performance in the military pillar is expected to be positively associated with higher scores of openness to experience, conscientiousness, extraversion, and agreeableness, and will be negatively associated with higher scores on neuroticism. |

**Table 2**

*Hypothesis 2*

|  |  |  |
| --- | --- | --- |
| H2.1 | Academic Pillar | Regression analyses which tested samples of men and women separately would produce different effects and significance than the overall sample model for the academic pillar. |
| H2.2 | Fitness Pillar | Regression analyses which tested samples of men and women separately would produce different effects and significance than the overall sample model for the fitness pillar. |
| H2.3 | Bilingualism Pillar | Regression analyses which tested samples of men and women separately would produce different effects and significance than the overall sample model for the bilingualism pillar. |
| H2.4 | Military Pillar | Regression analyses which tested samples of men and women separately would produce different effects and significance than the overall sample model for the military pillar. |

**Method**

**Participants**

Eighty-two students completing a degree under the four pillars program at the Royal Military College of Canada (RMC) participated in this study. The demographics in this study are laid out in Table 3.

**Table 3**

*Demographic representation*

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Responses | Number of Participants | Proportion of sample |
| Gender | Male:  Female:  Other: | 44  37  2 | 53.01%  44.58%  2.41% |
| Ethnicity | Caucasian:  Asian:  Indigenous:  Other: | 64  12  4  3 | 77.11%  14.46%  4.82%  3.61% |
| Academic Year | ILOY:  First year:  Second year:  Third Year:  Fourth year + (which encompasses students completing fifth or subsequent years): | 2  16  14  18  33 | 2.41%  19.28%  16.87%  21.69%  39.76% |
| First Language | English:  French:  Other: | 56  25  2 | 67.47%  30.12%  2.41% |
| Academic Program | Arts:  Sciences:  Engineering: | 52  7  23 | 62.65%  8.43%  27.71% |
| **Table 3 (continued)** |  |  |  |
| Variable | Responses | Number of Participants | Proportion of sample |
| Prep Year at CMRSJ | Yes:  No: | 17  66 | 20.46%  79.52% |
| Have been or currently in ILOY | Yes:  No: | 4  79 | 4.82%  95.18% |
| Attended another post-secondary | Yes:  No: | 25  58 | 30.12%  69.88% |

**Measures**

*Demographic Questions*

In the first section, students were asked nine different demographic questions to determine the demographic composition of the participant corp for this study. These questions were asked to determine composition of the study sample and to screen out any participants that did not belong in the study (i.e. those who are not students at RMC). A full list of demographic questions used are in Appendix E.

*Personality Scales*

The measure of the big five personality traits used for the current study was the IPIP-NEO-60 (Maples- Keller et al., 2017) test, a 60-item inventory that measures openness to experience (12 items), conscientiousness (12 items), extraversion (12 items), agreeableness (12 items), and neuroticism (12 items). This test was developed by Maples-Keller and colleagues (2017) as a shorter and freely accessible version of the NEO-PI-R using item response theory. This 60-item version demonstrates good convergent validity with a mean convergent validity coefficient of 0.83 to the NEO PI-R, IPIP-NEO, and BFI-2 (Maples-Keller et al., 2017). The full set of personality items can be found in Appendix F.

*Success in Four Pillars Scale*

The scale used to measure students' perceived success in the four pillars at RMC was designed by the author and their thesis supervisor. Items contributing to this scale were designed to match the format of the IPIP-NEO-60 items. The items could then be interlaced with the personality items (i.e. items were presented in a repeating sequence of items: Openness, conscientiousness, extraversion, agreeableness, neuroticism, four pillar question, repeat; see Appendix E). The questions were worded to resemble questions from the IPIP-NEO-60 scale by using the same “I…” prompt and response measurement (ex. “I… Am succeeding in the military pillar”). The wording of the success questions themselves was inspired by a four-item scale to measure self-perceived academic competence (Harter, 1982). For example, Harter (1982) used items like “I am good at school” and these questions were adapted for the current study, for example: “I am successful in the academic pillar”.

**Procedure**

Ethical approval prior to any contact with potential participants was sought and obtained. All students at the Royal Military College of Canada were contacted via email (See Appendix A) through the student wide email list, by OCdt Walker. Contained in the email was a brief description of the study with a link to the survey. Once a student clicked the link, they were brought to a page containing a questionnaire on Survey Monkey, an online platform for creating online surveys and collecting data. The survey first page was an information letter (Appendix B) and a consent form (Appendix C), participants were informed that by clicking through to the next page of the survey, they were acknowledging both the participant information letter and consent form. and implying consent to use their data. The time to complete the survey was estimated to be around 10-15 minutes based on trial run times conducted through a small group (n = 3) of student volunteers who timed themselves filling out the survey. The questions were presented in the same order for all participants. Upon completion of the survey, a debriefing page (Appendix D) appeared, which gave participants relevant information and resources about personality and performance and links to relevant studies that give more information on the topic. The responses were downloaded into an excel file from Survey Monkey and then the excel file was uploaded to SPSS as a data set and saved on a password protected computer.

**Data Analysis**

In this study, all analyses were done using SPSS V.25 (IBM, 2024). First, data was uploaded to SPSS and cleaned to ensure the completeness of participant answers. The data set included only students registered in a four-pillar program at RMC, including ILOY students (n = 2) as they are assessed on their performance in the four pillars. Data from participants who did not complete one or more measures were excluded from all analyses.

Responses for each subscale of the IPIP-NEO-60 questions were averaged to give the mean score for the personality traits for each participant (ranging from 1-5). For example, items one through twelve on the openness scale were averaged to create a scale score for each participant. This process was repeated for each of the big five personality traits. A similar process was used to attain an average score for each of the four pillars for the participants; items one through four for each of the academic, fitness, and bilingualism pillars were averaged to produce a scale score for each pillar. The military pillar questions were not combined into a scale, for reasons explained below. These new variables were used in the subsequent analyses.

Because of the large number of regressions run to conduct the analyses, results were only considered significant if they had an alpha level of p = 0.01 or less. This helped to minimize the number of errors in the results by minimizing the chance of mistakenly rejecting a null hypothesis. A correlation analysis of all study variables was run before conducting the regression analysis. To test hypothesis 1, multiple linear regressions were conducted. A linear regression analyzed each of the big five personality trait means as independent variables against academic average as the dependent variable. This analysis was repeated six more times swapping the dependent variable for a new subscale of four pillar success each time to test the effects of the personality model against each of the four pillars. To test hypothesis 2, multiple linear regression was again conducted, this time for men and women separately. The same steps as hypothesis one were repeated twice over, once for the sample of women, once for the sample of men. Finally, to determine differences in personality trait and self-perceived pillar success scores for men and women, independent samples t-test were conducted.

**Normality and Missing data**

The purpose of this study was to examine if the big five personality traits can predict self-perceived success in the four pillars for students at the Royal Military College of Canada. The data was assessed for normality using a Shapiro-wilk test and histogram for visual confirmation and it was found to be negatively skewed for some of the dependent variables. Self-perceived academic success, bilingualism success, and responses for two of the four items in the military pillar were all shown to be negatively skewed. No attempts to correct the skewness were performed. Upon reflection, the skew was likely because current RMC students are supposed to be successful in the four pillars (and if they are not, they are removed from the school), so there may be a potential ceiling effect manifest in the skewed responses.

The sample for analysis comprised 83 participants in total after excluding participants who were missing more than one item for any specific scale. Participants missing one item on a scale were retained. But the missing value was replaced with the average of the responses to the other scale items. The overall scale was then recomputed with all twelve responses for the participant.

**Results**

**Correlations and Descriptive Statistics**

All study variable means, standard deviations, and intercorrelations are presented in Table 4. Scale reliability (Cronbach’s alpha) were generally in a suitable range (α > .70) and are presented in Table 4. The military pillar had unacceptable reliability when treated as a scale so each of the items were separated for individual analysis~~.~~ The items used for the military pillar included: Military Success (M1), Military Course Failure (M2), Bar Positions (M3), and Disciplinary Measures (M4). The personality traits had good reliability except for openness and agreeableness which had marginal reliability (α = .63 and .69 respectively). Some correlations show support for hypothesis 1, revealing significant correlations between conscientiousness and the academic pillar, fitness pillar, and military success question at the p = 0.01 level; and between extraversion and the fitness pillar and military success question at the p = 0.01 level. Intercorrelations for both the male and female samples are presented in tables 5 and 6 respectively. Scale reliability generally followed similar pattern to that of the overall sample except for the female sample had good reliability for agreeableness (α = 0.74) and had marginal reliability for neuroticism (α = .68).

**Table 4**

*Correlations Whole Sample*

****

**Table 5**

*Correlation Men*

****

**Table 6**

*Correlation Women*

****

Independent samples t-tests were conducted to determine if there were significant differences between the male and female samples in each of the variables used in the study. Only neuroticism scores showed a significant difference between men and women *t* (81) = -3.29, *p* = 0.029, as shown in Appendix G, table 7.

H1.1 suggested that the big five personality traits would predict self-perceived success in the academic pillar at RMC. This hypothesis was supported; results of the multiple linear regression indicated that there was a collective significant relationship between the big five personality traits and the academic pillar at RMC (*F* (5, 77) = 5.975, *p* < 0.001, *r2* = 0.28). Conscientiousness (*β =* 0.561*, t* = 5.069, *p* < 0.001) and neuroticism (*β* = 0.351, *t* = 2.955, *p* = 0.004) were significant predictors in the model.

H2.1 was tested using regression analyses which tested samples of men and women separately. It was expected that the regressions would reveal different patterns and correlations of significant predictors for the two gender groups. Results for the multiple linear regression for the women indicated that there was not a collective significant relationship between the big five personality traits and self-perceived success in the academic pillar (*F* (5,31) = 2.148, *p* = 0.086, *r2* = 0.26. Results for linear regression for the men indicated that there was a collective significant effect between the big five personality traits and self-perceived success in the academic pillar (*F* (5, 38) = 5.372, *p* < 0.001, *r2* = 0.41). Conscientiousness (*β* = 0.718, *t* = 4.504, *p* < 0.001) and neuroticism (*β* = 0.652, *t* = 3.842, *p* < 0.001) were significant predictors in the model. All regressions on the academic pillar are presented in Appendix H, table 8.

**Self-Perceived Fitness Pillar Success**

H1.2 suggested that the big five personality traits can predict self-perceived success in the fitness pillar at RMC. This hypothesis was supported, results of the linear regression indicated that there was a collective significant effect between the big five personality traits and the fitness pillar at RMC (*F* (5, 77) = 6.549, *p* < 0.001, *r2* = 0.30). Conscientiousness (*β* = 0.369, *t* = 3.379, *p* = 0.001) and extraversion (*β* = 0.303*t* = 2.722, *p* = 0.008) were significant predictors in the model.

H2.2 stated that regression analyses which tested samples of men and women separately would produce different patterns of effects and significance than the overall sample model for the fitness pillar. Linear regression models were tested for women and men separately. Results for the multiple linear regression for the women indicated that there was a collective significant effect between the big five personality traits and self-perceived success in the fitness pillar (*F* (5,31) = 4.117, *p* = 0.006, *r2* = 0.40). Results for linear regression for the men indicated that there was a collective significant effect between the big five personality traits and self-perceived success in the fitness pillar (*F* (5, 38) = 3.667, *p* = 0.008, *r2* = 0.33). None of the personality traits were significant predictors of self-perceived success in the fitness pillar at the *p* = 0.01 level for the men or women. All regressions on the fitness pillar are presented in Appendix H, table 9.

**Self-Perceived Bilingualism Pillar Success**

H1.3 stated that the big five personality trait would predict self-perceived success in the bilingualism pillar at RMC. This hypothesis was not supported. Results of the linear regression indicated that there was not a collective significant effect between the big five personality traits and the bilingualism pillar at RMC (*F* (5, 77) = 1.339, *p* = 0.257, *r2* = 0.08). none of the big five personality traits significantly predicted self-perceived success in the bilingualism pillar.

H2.3 stated that regression analyses which tested samples split into men and women would produce different patterns of effects and significance than the overall sample model for the bilingualism pillar. H2.3 was not supported; linear regression models were tested for women and men separately. Results for the multiple linear regression for the women (*F* (5,31) = 1.012, *p* = 0.428, *r2* = 0.14) and men (*F* (5,38) = 1.105, *p* = 0.374, *r2* = 0.13) showed no significant models and no significant personality traits at the *p* = 0.01 level, like the regression analysis of the overall sample. The regressions on the bilingualism pillar are presented in Appendix H, table 10.

**Self- Perceived Military Pillar Success**

H1.4 stated that the big five personality traits would predict self-perceived success in the military pillar at RMC. For the first item, Military Success, which were responses to the prompt “I am successful in the military pillar”, this hypothesis was supported. Results of the linear regression indicated that there was a collective significant effect between the big five personality traits and self-perceived success in the military pillar at RMC (*F* (5, 77) = 4.423, *p* = 0.001, *r2* = 0.223). Extraversion (*β* = 0.365, *t* = 3.123, *p* = 0.003) is a significant predictor in this model.

For the rest of the military pillar items: (Military Course Failures: *F* (5, 77) = 0.757, *p* = 0.584, *r2* = 0.047) , (Bar Positions: *F* (5, 76) = 0.757, *p* = 0.583, *r2* = 0.047) and (Disciplinary Measures: *F* (5, 77) = 1.147, *p* = 0.343, *r2* = 0.069), this hypothesis was not supported, results of the linear regressions indicated that personality traits were not significant predictors of any of these items. Furthermore, none of the personality traits were significant predictors at the *p* = 0.01 level within the models.

H2.4 stated that regression analyses which tested samples split into men and women would produce different patterns of effects and significance than the overall sample model for the military pillar. This hypothesis is supported for item Military Success, linear regression models were tested for women and men separately. Results for the multiple linear regression for the women indicated that there was not a collective significant effect between the big five personality traits and self-perceived success in the Military Success item (*F* (5,31) = 1.124, *p* = 0.368, *r2* = 0.153). None of the big five personality traits were significant predictors for this model. However, Results for linear regression for the men indicated that there was a collective significant effect between the big five personality traits and self-perceived success in the Military Course Failure item (*F* (5, 38) = 4.903, *p* = 0.001, *r2* = 0.39). Extraversion (*β* = 0.233, *t* = 3.993, *p* < 0.001) was found to be a significant predictor in the model for men.

H2.4 was not supported for the Military Course Failure item. Results for the multiple linear regression for the women indicated that there was not a collective significant effect between the big five personality traits and self-perceived success in the Military Course failure item (*F* (5,31) = 0.505, *p* = 0.770, *r2* = 0.075). none of the big five personality traits were significant predictors for this model. Similarly, results for linear regression for the men indicated that there was not a significant effect between the big five personality traits and self-perceived success in the Military Course Failure item (*F* (5, 38) = 2.861, *p* = 0.027, *r2* = 0.273).

H2.4 was not supported by the Bar Positions or Disciplinary Measures items. Results for the multiple linear regression for these items for women indicated that there was not a collective significant effect between the big five personality traits and perceived success in the Bar Positions item (*F* (5,31) = 0.662, *p* = 0.655, *r2* = 0.096) or perceived success in the Disciplinary Measures item (*F* (5,31) = 0.220, *p* = 0.951, *r2* = 0.034). Similarly, results for multiple linear regression for these items for men indicated that there was not a collective significant effect between the big five personality traits and perceived success in the Bar Positions item (*F* (5,37) = 0.812, *p* = 0.549, *r2* = 0.099) or perceived success in the Disciplinary Measures item (*F* (5,38) = 1.048, *p* = 0.404, *r2* = 0.121). Regression tables for the military pillar items are located in appendix H: tables 11, 12, 13, and 14.

**Discussion**

This study has explored the ability of the big five personality traits to predict performance in each of the four pillars at the RMC. This study used the IPIP-NEO-60 (Maples-Keller et al., 2017), and a self-perceived success scale developed by OCdt Walker and their thesis advisor, loosely based on Harter's perceived competence scale (1982). These measures were used to assess the personality and perceived success profile of students at the RMC and hypotheses were tested using linear regression analyses and t-tests. The results of this study largely support the hypothesis that a big five personality profile can be used to partially predict performance in each of the four pillars, except for bilingualism.

Hypothesis 1.1 stated that the big five personality traits could predict self-perceived success in the academic pillar at RMC. This hypothesis was supported by the big five personality traits having a moderate positive correlation with performance in the academic pillar. These findings are similar to the results of other studies which also found support for personality traits as predictors of academic performance (Chamorro-Premuzic & Furnham, 2003; Nguyen et al., 2005 Meyer et al., 2024; Schoeman & Kotzee, 2022). It was determined that conscientiousness and neuroticism were significant predictors within the model.

This is somewhat consistent with the current literature which suggests that those who score higher in conscientiousness have higher success in academic achievement because of their tendency to be more persistent, organized, achievement-oriented, and self-disciplined (Chamorri-Premuzic & Furnham, 2003; de Albuquerque et al., 2022; Meyer et al., 2024; Nguyen et al., 2005 Vianello et al., 2009). Those who exhibit the characteristics associated with conscientiousness are likely better at time management and strive for better results in their classes. It may also be worth noting that students at the RMC are often required to accept additional tasks and duties throughout the school year so those who are better organized may be able to use their time more effectively and would therefore perform better academically. Those who reserve less time for schoolwork or homework each day might be less able to accommodate additional tasks that arise unexpectedly, to the detriment of their academic studies.

Neuroticism was also found to be a significant predictor of academic success for the model. This was the opposite of what was expected based on the majority of the current literature; however, some researchers have found similar results, having determined that higher emotional stability, the opposite of higher neuroticism, was a significant negative predictor of academic performance (Schoeman & Kotzee, 2022; Nguyen et al., 2005). They propose that this may indicate that students who experience higher levels of stress than their peers may perform better than their counterparts because their stress is healthy instead of crippling and can motivate them to complete their schoolwork. For RMC specifically, this may be because students are given tools and resources like military training and Road to Mental Readiness training to help students manage the negative effects of higher neuroticism like stress, anxiety, depression, or self-consciousness. This program may be especially helpful to highly neurotic students by changing their emotions from a state of being overwhelming into healthy and useful which helps motivate them to perform better academically.

Hypothesis 1.2 stated that the big five personality traits will predict self-perceived success in the fitness pillar at RMC. This hypothesis was supported: the big five personality traits had a collective significant effect in predicting performance in the fitness pillar at RMC. This is consistent with other current research that found the big five personality traits can be used to predict performance in areas relating to fitness and athletics (Li et al., 2024; Piepiora & Naczynska, 2023; Yang et al., 2024; Zar et al., 2022). Conscientiousness and extraversion were shown to be significant predictors within this model.

The current study found that conscientiousness is a significant predictor for this model of self-perceived success in the fitness pillar and this is consistent with the current literature which states that since those high in conscientiousness are achievement-oriented and have great determination to accomplish their athletic goals, higher levels of conscientiousness predicts athletic or fitness performance (Piedmont et al., 1999; Yang et al., 2024; Zar et al., 2022). Those who score higher on conscientiousness may be more likely to strive harder than others to achieve their goals. This may give them an advantage because they have practiced more rigorously or trained and studied more frequently. Students at the RMC must maintain a constant state of physical fitness to keep up with the physical demands of both the fitness and military pillar. This is especially difficult given that students have packed schedules and must pursue their fitness goals while also managing the demands of completing an undergraduate degree.

Extraversion was also found to be a significant predictor in students self-perceived fitness success. This finding is consistent with the literature which explains that the outgoing nature of extraverted people may help them thrive as a member of a team and influence them to train more often with others (Butkovic et al., 2017; Yang et al., 2024; Zar et al., 2023). At RMC, extraverted people are certainly at an advantage when it comes to fitness and team cohesion. Sport activities like intramural or gym classes tend to change every semester causing regular shifting and changes in team members. Extraverted people may find that they are more successful in adapting and reintegrating into new teams or groups at the school because they are more inclined to social interaction.

Hypothesis 1.3 stated that the big five personality traits can predict self-perceived success in the bilingualism pillar at RMC. This hypothesis was not supported as there was not a collective significant effect between the personality traits and self-perceived success in the bilingualism pillar at RMC. This was an interesting result because the current research would typically state otherwise. Most of the current literature has found that there is a relationship between personality traits and bilingualism or second language learning (Chen et al., 2019; Chen et al., 2022). A possible explanation for this result is that there were issues with the questions that were asked with regard to the nature of success in the bilingualism pillar. It is hard to self-report success in the bilingualism pillar as students come from across Canada and some of them have never spoken in their second language before, therefore it is not expected that students come to RMC with a base knowledge of their second official language. For this reason, success is measured only in progress over time and failure in this pillar may not look the same for every individual, sometimes failure is only clear at the end of a student's time at RMC (at which point they would not have met the inclusion criteria for this study). In hindsight, some of the questions that contributed to the self-perceived bilingualism success scale were very subjective and did not have a definitive response that could be given. For example, the question “I have attained or am on track to attain BBB in my second official language” is a very subjective question because students that are in classes working to attain their BBB are technically on track to attain it, ~~up~~ until they don’t.

Hypothesis 1.4 stated that the big five personality traits can predict success in the military pillar at RMC. This hypothesis was supported by the results regressing the big five on self-perceived success in the military pillar (i.e. the Military Success item “I am successful in the military pillar”) as there was a significant effect found between personality traits and their ability to predict a response to the prompt “I am successful in the military pillar”. This is consistent with other research that found that the big five personality traits can predict military or leadership performance (Johnson & Hill, 2009). Extraversion was found to be a significant predictor of self-perceived military pillar success (Johnson & Hill, 2009; Karlsen & Langvik, 2021; Landis et al., 2022). These results show that students who scored higher on extraversion tend to perceive themselves as being more successful in the military pillar at RMC. Results from Johnson and Hill (2009) also reported that the effective leader was seen as being significantly higher in extraversion when compared to the perception of an ineffective leader. This may be due to the dominant and outgoing traits associated with extraversion which, according to current research, are considered “leaderlike” qualities (Johnson & Hill, 2009). At RMC, those who are more outgoing and assertive tend to find more success in leadership roles throughout the college because they maintain a good perception of competence with those in the training wing leadership. If extraverts are perceived by others to be more effective leaders, it is not surprising that they would also perceive themselves to be effective leaders.

For the Military Course Failure item which prompted “I have no military course failures” Hypothesis 1.4 was not supported. This means that the study did not find a significant ability for personality traits to predict self-perceived military course failures. This may have been caused by the nature of the question and its relevance to the RMC. Students at the RMC attend military training during the summers and must have at least completed the Basic Military Officer Qualification Mod 1 and Mod 2 before graduation. However, because of injury or other life circumstances it is possible for cadets not to have completed any military course but have no failures at the same time. Because of the variability in how this question relates to the cadets, it is not surprising that this question yielded non-significant results. Similarly, hypothesis 1.4 was not supported for the Bar Positions item which prompted “I obtain bar positions I apply for”. In hindsight this was a prompt with a lot of variability in how it could be answered by the cadet wing. Every student needs to have successfully held a bar position of some kind to have success in the military pillar. This means that all students are encouraged to apply for a position, but mainly bar positions are allotted to third and fourth years as they are closest to graduation. Finally, the Disciplinary Measures item prompted “I have no military discipline measure(s) on file” and yielded no significant relationship with personality measures. Since the RMC is a training institution, there is typically a high emphasis on using corrective measures that remain at the school and only the very serious offences (which are very rare) end up as military discipline on a student's permanent file. This means that the sample of students who have military discipline on file is likely very small and therefore the results were unsurprising.

Hypothesis two was tested using regression analyses which tested samples of men and women separately. It was expected that the regressions would reveal different patterns and correlations of significant predictors for the two gender groups. T-tests were conducted to examine gender differences in the big five personality traits and self-perceived success in the four pillars. Only neuroticism was shown to have statistically significant difference in the average scores of neuroticisms between men (*M* = 2.47, *SD* = 0.70) and women (*M* = 2.91, *SD* = 0.46). This shows that men and women score similarly on all the big five personality dimensions except for neuroticism. However, the neuroticism findings must be approached with caution due to the varying reliability of the scale. It was shown that the reliability for the items of the neuroticism scale for women was .68 while the reliability for the male sample and overall sample was .85 and .81 respectively.

For hypothesis 2.1, regression analyses were used to determine if the big five personality traits predict success in the academic pillar differently depending on gender. This hypothesis was partially supported as the model for the female sample was not significant while the model for the male sample was significant. This means that the big five personality traits could be used to predict the academic performance of men, but not for women. There are several reasons to be very cautious with this result; unequal and small sample sizes may have impacted the reliability of the study while significant gender differences in scores of the personality traits, and the varying reliability of the neuroticism scale between the samples may potentially reveal misleading or unreliable results. More research is required to analyze the true relationship between the different patterns of association with the big five personality traits and self-perceived success in the academic pillar between men and women.

For hypothesis 2.2, regression analyses were used to determine if the big five personality traits predict success in the fitness pillar differently depending on gender. This hypothesis was not supported as the models for both men and women showed that the big five personality traits were able to predict self-perceived performance in the fitness pillar.  Interestingly, in the overall sample both conscientiousness and extraversion were significant at the p = 0.01 level, but this was not the case for the men or women samples. They did however approach the desired level of significance, this is likely a function of the sample sizes of the groups; the overall sample size is large enough for the regression to detect statistically significant effects, but when the sample is split up into smaller groups, the statistical power is not large enough to produce a significant effect at the p = 0.01 level.

For hypothesis 2.3, regression analyses were used to determine if the big five personality traits predict success in the bilingualism pillar differently depending on gender. This hypothesis was not supported because similar to the overall sample, neither the male nor the female sample demonstrated a significant effect of personality predicting self-perceived success in the bilingualism pillar. Similar to the explanation for hypothesis 1.3, the questions asked to determine bilingualism pillar success may be the cause of the non-statistically significant findings.

Finally, hypothesis 2.4 examined if gender differences would influence the pattern of association between the big five personality traits and success in the military pillar. This hypothesis was partially supported for the military pillar because it was shown that the big five personality traits can predict success in the Military Success item for men, but not for women. The main predictor within the overall sample model was extraversion, which remained a significant predictor within the male sample model but was not significant for the female sample model. The finding that extraversion scores were not significantly different for men and women means that it is not the personality traits themselves, but rather how the personality traits are related to the pillar which may be the cause for the discrepancy in the models. If extraversion is experienced or evaluated differently for men than for women within the military pillar, this may reveal potential gender bias within the pillar. For example, research on female leaders in skilled technical roles by Kurt and Namuziya (2019) found that assertive and dominant women in leadership positions are often viewed as being aggressive and are not positively perceived by others. At RMC, it is possible that extraverted women who portray more assertiveness and dominance may be met with adverse sentiment and be seen as aggressive which could lead to them feeling less confident in their success as a leader. In other words, how the traits are experienced or presented by each gender may be the cause of the differences in the regression analyses and not simply the level of the trait itself. As for the rest of the military pillar items, the hypothesis was not supported as the patterns of association between the big five personality traits and self-perceived success in the Military Course Failure, Bar Position, and Disciplinary Measures items revealed no significant correlations within the regression models.

**Implications of the Findings**

First, it must be acknowledged that the personality traits only account for a small portion of the variance in the significant models (typically between 20 and 30 percent) meaning personality only accounts for roughly a quarter (give or take) of the variation in performance within the four pillars. This means that while personality may play a role in predicting performance, it is certainly not the only important factor therefore a four-pillar selection method must seek to clarify other aspects that are contributing to the performance of students.

These results show that the big five personality model can be used to predict some aspects of self-perceived performance among RMC students. The literature in organizational psychology is supportive of the possibility of using personality as a selection or assessment tool in the workplace (Goodstein & Lanyon, 1999). The implications of these findings which show the big five personality traits as a predictive of academic success may be used to enhance the selection methods for students at RMC. If students who are more conscientious (and, perhaps neurotic) generally achieve higher self-perceived success in the academic pillar, this could be an important insight to be used in the selection method.

The results demonstrated that personality traits can be used to predict performance in the fitness pillar at RMC. Conscientiousness and extraversion were shown to significantly positively predict self-perceived success in the fitness pillar, it could be useful to incorporate a selection tool that assesses these traits into the RMC selection process to determine an applicant's likelihood of attaining a high level of success in this pillar. An important limitation for this point is that these personality traits and performance in the four pillars are not perfectly correlated, meaning there are many other variables that impact a student's self-perceived success in the four pillars. This means that personality should not be used as a primary selection tool but rather as a secondary selection tool to give insight into applicants' potential rather than to use it as a screening method for applicants who apply to the program.

Furthermore, the implications of these findings may be used to examine potential gender biases within the four pillars at RMC. The findings in hypothesis two indicate that for the military pillar, the scores for personality traits are less important for prediction of self-perceived success in the pillar when compared to how the traits are perceived, expressed, and presented. This research indicates that while extraversion may be an important predictor of self-perceived success in the military pillar, its patterns of association differ based on gender. If it is the case that women are expressing extraversion or being interpreted differently than men within the military pillar, then the pillar may be biased towards the way men express or are perceived as expressing extraversion.

**Limitation/Future Research**

There are several limitations to this study that must be noted to facilitate possible direction for future research. First, this study was conducted with a sample of students currently enrolled in the four-pillar program at RMC. This presents a possible ceiling effect where only the personality traits of individuals that are currently successful are analyzed. It would be very useful to incorporate the data from students who had failed out of the four-pillar program and to compare their personality trait scores to students currently succeeding in the program. This could provide more insight into how personality may predict success on a pass/fail basis instead of self-perceived success. This could also reveal how the use of personality testing at RMC may be used to mitigate the amount of error within the current selection system. If it is found that a score in a particular personality trait relates to error (for example, students who had been selected for the program but were unsuccessful scored much lower than other students on agreeableness), it could provide direction for how the big five personality traits could be incorporated into the selection system.

Another major limitation for this study was sample size. With only 83 participants and multiple variables within each regression model, it is likely the study just didn’t have enough statistical power to produce robust results when the samples were divided into men and women. Furthermore, a larger sample size may allow for more analyses of the different demographics at RMC. For example, this study included few participants who identified with ethnicities other than Caucasian. It would have been interesting to see if differences in ethnicity would influence the pattern of the associations between the big five personality traits and success in the four pillars. Another limitation was our ability to measure success in the four pillars. This study was constrained by using self-report measures to assess success in the four pillars. This means that the responses may not have been entirely accurate because students may not have had accurate knowledge of where they stand in some of the pillars or it may have been skewed by individual student bias when they were filling out the survey.

There are several directions for future research that would lend further insight into the use of the big five personality traits in predicting success in the four pillars. One possibility for future research would be to examine the relationship between perception and actual performance in the bilingualism pillar. Students may assume that because they are going to SOLET classes and are passing, that they are on track to attain their language profile by graduation. This presents a disconnect between perceived success and actual success with this pillar and it is worth discussing further because it is important for students to know when they are succeeding in each pillar. If students assume they are succeeding even though their progress in the SOLET program says otherwise, this could be potentially damaging to their performance in this pillar. Future research could also examine what other factors are contributing to the success of students in the four pillars. This study shows that the big five personality traits can significantly predict self-perceived success, but they only account for about 20-30% of the variance at best. Research into what other factors contribute to self-perceived success (i.e. motivation, self-efficacy, social, and environmental factors) could be useful for determining what makes a successful RMC student. The findings raised in hypothesis two show that the personality traits have different predictive patterns when it comes to gender, but sample size and limitations did not permit in-depth analysis to explore those patterns. Future research should examine how the personality traits are projected and perceived differently due to gender to be able to examine equitability within the four pillars. If it is shown that a personality trait which is significant in predicting success in one of the four pillars is manifested differently for men and women, the opportunities for men and women may be different in that pillar. Finally, it would be very informative to know whether students’ self-perceptions of success are consistent with actual performance in the four pillars. Analysis of the reliability and validity of self-perceived measures of success in the four pillars when compared to the actual records that RMC holds would be useful in determining if a self-perception scale is useful or not.

This thesis set out to examine whether the big five personality traits predict self-perceived success in the four pillars, and whether gender differences in the portrayal or perception of the personality traits may affect the patterns of association between this relationship. The first hypothesis was partially supported meaning that the big five personality traits were able to partially predict performance in three of the four pillars. The second hypothesis was also partially supported, showing evidence that gender differences and potential biases may exist in how the personality traits are perceived and evaluated in the context of the four pillars. This research is important in today’s context, where organizations seek to maximize their recruitment and evaluation processes while mitigating adverse effects on different groups. A continuation into the exploration of the relationship between personality traits and self-perceived success in the four pillars would benefit the organization and its students.

**References**

Butković, A., Vukasović Hlupić, T., & Bratko, D. (2017). Physical activity and personality: A behaviour genetic analysis. *Psychology of Sport and Exercise*, *30*, 128–134. <https://doi.org/10.1016/j.psychsport.2017.02.005>

Cao, C., & Meng, Q. (2020). Exploring personality traits as predictors of English achievement and global competence among Chinese university students: English learning motivation as the moderator. *Learning and Individual Differences*, *77*, 101814. <https://doi.org/10.1016/j.lindif.2019.101814>

Chamorro-Premuzic, T., & Furnham, A. (2003). Personality predicts academic performance: Evidence from two longitudinal university samples. *Journal of Research in Personality*, *37*(4), 319–338. <https://doi.org/10.1016/S0092-6566(02)00578-0>

Chen, X., He, J., & Fan, X. (2019). Relationships between openness to experience, cognitive flexibility, self-esteem, and creativity among bilingual college students in the U.S. *International Journal of Bilingual Education and Bilingualism*, *25*(1), 342–354. <https://doi.org/10.1080/13670050.2019.1688247>

Chen, X., He, J., Swanson, E., Cai, Z., & Fan, X. (2022). Big Five Personality Traits and Second Language Learning: A Meta-analysis of 40 Years’ Research. *Educational Psychology Review*, *34*(2), 851–887. <https://doi.org/10.1007/s10648-021-09641-6>

Ciorbea, I., & Pasarica, F. (2013). The Study of the Relationship between Personality and Academic Performance. *Procedia - Social and Behavioral Sciences*, *78*, 400–404. <https://doi.org/10.1016/j.sbspro.2013.04.319>

Contreras, D. W. J. (2016). *An examination of the relationships between competitive anxiety, neuroticism, stress, and coping in student-athletes—ProQuest*. <https://www.proquest.com/docview/1839332115/6854BB4B658E46D0PQ/2?accountid=13608&sourcetype=Dissertations%20&%20Theses>

Costa, P. T., & McCrae, R. R. (1992). *Personality Stability and its Implications for Clinical Psychology*. <https://onlinelibrary-wiley-com.journal.rmc.ca/doi/abs/10.1111/j.1467-6494.1992.tb00970.x?msockid=2b4d94842ab364b6250d9a602b656529>

Costa, P. T., & McCrae, R. (2001). Gender Differences in Personality Traits Across Cultures: Robust and Surprising Findings. *Journal of Personality and Social Psychology*, *81*, 322–331. [https://doi.org/10.1037//0022-3514.81.2.322](https://doi.org/10.1037/0022-3514.81.2.322)

de Albequerque e Mello, M., Coelho, C. A., & de Oliveira, L. B. (2022). Personality Traits and Academic Performance: Evidence from College Students in Brazil. *Revista Brasileira de Economia de Empresas / Brazilian Journal of Business Economics*, *22*(1), 5–20.

Fosse, T. H., Martinussen, M., Sørlie, H. O., Skogstad, A., Martinsen, Ø. L., & Einarsen, S. V. (2024). Neuroticism as an antecedent of abusive supervision and laissez-faire leadership in emergent leaders: The role of facets and agreeableness as a moderator. *Applied Psychology*, *73*(2), 675–697. <https://doi.org/10.1111/apps.12495>

Funder, David. C. (2016). *The Personality Puzzle* (7th ed.). W.W Norton & Company, Inc.

Gatzka, T. (2021). Aspects of openness as predictors of academic achievement. *Personality and Individual Differences*, *170*, 110422. <https://doi.org/10.1016/j.paid.2020.110422>

Goodstein, L. D., & Lanyon, R. I. (1999). Applications of Personality Assessment to the Workplace: A Review. *Journal of Business and Psychology*, *13*(3), 291–322. <https://doi.org/10.1023/A:1022941331649>

Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development*, *53*(1), 87–97. <https://doi.org/10.2307/1129640>

Javalagi, A. A., Newman, D. A., & Li, M. (2024). Personality and leadership: Meta-analytic review of cross-cultural moderation, behavioral mediation, and honesty-humility. *Journal of Applied Psychology*, *109*(9), 1489–1511. <https://doi.org/10.1037/apl0001182>

Johnson, J. L., & Hill, W. R. (2009). Personality Traits and Military Leadership. *Individual Differences Research*, *7*(1), 1–13.

Karlsen, H. R., & Langvik, E. (2021). Facet level effects of extraversion on leadership behaviours rated by subordinates. *Cogent Psychology*, *8*(1), 1–18. <https://doi.org/10.1080/23311908.2021.1930712>

Kurt, A., & Namuziya, S. (2019). *Personal and Interpersonal Assertiveness of Female Leaders in Skilled Technical Roles—ProQuest*. <https://www.proquest.com/docview/2330759398?pq-origsite=gscholar&fromopenview=true&sourcetype=Scholarly%20Journals>

Landis, B., Jachimowicz, J. M., Wang, D. J., & Krause, R. W. (2022). Revisiting extraversion and leadership emergence: A social network churn perspective. *Journal of Personality and Social Psychology*, *123*(4), 811–829. <https://doi.org/10.1037/pspp0000410>

Li, Q., Xiao, D., & Zeng, Q. (2024). Exploring performance of athletic individuals: Tying athletic behaviors and big-five personality traits with sports performance. *PLoS ONE*, *19*(12), 1–20. <https://doi.org/10.1371/journal.pone.0312850>

Lippa, R. A. (2010). Gender Differences in Personality and Interests: When, Where, and Why? *Social and Personality Psychology Compass*, *4*(11), 1098–1110. <https://doi.org/10.1111/j.1751-9004.2010.00320.x>

Mammadov, S. (2022). Big Five personality traits and academic performance: A meta-analysis. *Journal of Personality*, *90*(2), 222–255. <https://doi.org/10.1111/jopy.12663>

Maples-Keller, J. L., Williamson, R. L., Sleep, C. E., Carter, N. T., Campbell, W. K., & Miller, J. D. (2019). Using Item Response Theory to Develop a 60-Item Representation of the NEO PI-R Using the International Personality Item Pool: Development of the IPIP-NEO-60. *Journal of Personality Assessment*, *101*(1), 4–15. <https://doi.org/10.1080/00223891.2017.1381968>

McCormack, L., & Mellor, D. (2002). The Role of Personality in Leadership: An Application of the Five-Factor Model in the Australian Military. *Military Psychology*, *14*(3), 179–197. <https://doi.org/10.1207/S15327876MP1403_1>

Meyer, J., Lüdtke, O., Schmidt, F. T. C., Fleckenstein, J., Trautwein, U., & Köller, O. (2024). Conscientiousness and Cognitive Ability as Predictors of Academic Achievement: Evidence of Synergistic Effects From Integrative Data Analysis. *European Journal of Personality*, *38*(1), 36–52. <https://doi.org/10.1177/08902070221127065>

Meyer, J., Schmidt, F. T. C., Fleckenstein, J., & Köller, O. (2023). A closer look at the domain‐specific associations of openness with language achievement: Evidence on the role of intrinsic value from two large‐scale longitudinal studies. *British Journal of Educational Psychology*, *93*(1), 113–133. <https://doi.org/10.1111/bjep.12543>

Nguyen, N. T., Allen, L. C., & Fraccastoro, K. (2005). Personality Predicts Academic Performance: Exploring the Moderating Role of Gender. *Journal of Higher Education Policy & Management*, *27*(1), 105–116.

Piedmont, R. L., Hill, D. C., & Blanco, S. (1999). Predicting athletic performance using the five-factormodel of personality. *Personality and Individual Differences*, *27*(4), 769–777. <https://doi.org/10.1016/S0191-8869(98)00280-3>

Piepiora, P., & Naczyńska, A. (2023). Personality Traits vs. Sports Classes of Polish Representatives in Junior Sports Acrobatics. *Sports*, *11*(10), 194. <https://doi.org/10.3390/sports11100194>

RMC. (2025). *Four Pillar Program* [RMC]. <https://www.rmc-cmr.ca/en/registrars-office/athletic-department>

Schoeman, R., & Kotzee, W. F. (2022). Relationship between personality traits and academic performance on a Master of Business Administration programme. *South African Journal of Business Management*, *53*(1), 1–9. <https://doi.org/10.4102/sajbm.v53i1.2745>

Shah, S. A., Majoka, M. I., Shah, S. M. H., & Saeed, K. (2017). Effect of Neuroticism, Extraversion, and Agreeableness Factors of Personality on Academic Achievement of Secondary School Students. *Isra Medical Journal*, *9*(3), 175–179.

Shin, J., Lee, H. J., Park, H., Hong, Y., Song, Y. K., Yoon, D. U., & Oh, S. (2023). Perfectionism, test anxiety, and neuroticism determines high academic performance: A cross-sectional study. *BMC Psychology*, *11*(1), Article 1. <https://doi.org/10.1186/s40359-023-01369-y>

Smith, J., Garon-Carrier, G., Guimond, F.-A., Fitzpatrick, C., Chichekian, T., St-Amand, J., & Lemieux, A. (2024). Using personality traits to predict correspondence between self-perception of academic competence and achievement: A latent profile analysis study. *Social Psychology of Education*, *27*(1), 283–297. <https://doi.org/10.1007/s11218-023-09814-x>

Tomczak, M., Kleka, P., Tomczak-Łukaszewska, E., & Walczak, M. (2024). Hope for success as a mediator between Big Five personality traits and achievement goal orientation among high performance and recreational athletes. *PLoS ONE*, *19*(3), 1–17. <https://doi.org/10.1371/journal.pone.0288859>

Vedel, A. (2014). The Big Five and tertiary academic performance: A systematic review and meta-analysis. *Personality and Individual Differences*, *71*, 66–76. <https://doi.org/10.1016/j.paid.2014.07.011>

Vianello, M., Robusto, E., & Anselmi, P. (2010). Implicit conscientiousness predicts academic performance. *Personality and Individual Differences*, *48*(4), 452–457. <https://doi.org/10.1016/j.paid.2009.11.019>

Yang, J.-H., Yang, H. J., Choi, C., & Bum, C.-H. (2024). Relationship between Athletes’ Big Five Model of Personality and Athletic Performance: Meta-Analysis. *Behavioral Sciences (2076-328X)*, *14*(1), 71. <https://doi.org/10.3390/bs14010071>

Zar, A., Reza, S. H., Ahmadi, F., Nikolaidis, P. T., Safari, M. A., Keshazarz, M. H., & Ramsbottom, R. (2022). Investigating the Relationship between Big Five Personality Traits and Sports Performance among Disabled Athletes. *BioMed Research International*, 1–7. <https://doi.org/10.1155/2022/8072824>

**Appendix A**

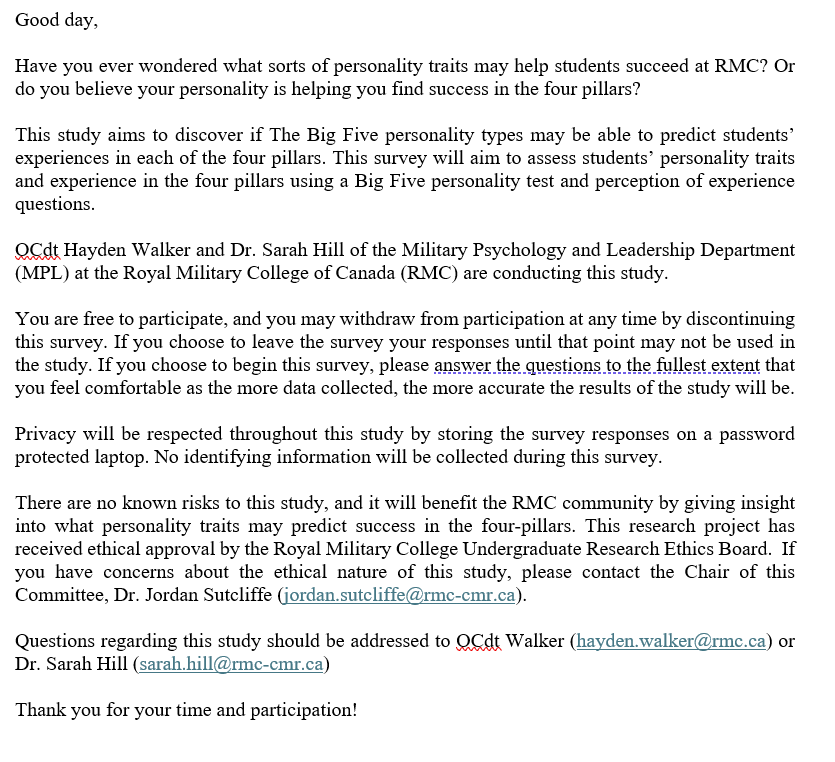
**Email Sample**

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**Appendix B**

**Participant Information Sample**

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**Appendix C**

**Consent Form Sample**

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**Appendix D**

**Debriefing Form**

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**Appendix E**

**Full List of Demographic Questions and Possible Responses**



**Appendix F**

**Full Scale Used for personality and perception of Success Questions**

Page Prompt: The next set of questions will ask about a variety of personality-related aspects of yourself, and your perceptions of your performance here at RMC. You may decline to answer any questions that you find uncomfortable, but please try to be as complete in your responses as possible. Conclusions drawn in this study will be more robust if they are based on complete data from all participants. / La prochaine série de questions portera sur divers aspects de votre personnalité et sur votre perception de votre travail au CMR. Vous pouvez refuser de répondre à toute question qui vous met mal à l'aise, mais essayez de répondre le plus complètement possible. Les conclusions tirées de cette étude seront d'autant plus solides qu'elles seront basées sur des données complètes provenant de tous les participants.





**Appendix G**

**Table 7**

*Gender Differences in The Big Five Personality Traits and Self-Perceived Success in the Four Pillars*

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variables | Men (N = 44) | | | Women (N = 37) | | | *t*(79) | | | *p* | *Cohen's d* | |
|  | | *M* | *SD* | | *M* | *SD* | |  |  | | |  |
| Openness | | 3.42 | 0.52 | | 3.49 | 0.46 | | -0.63 | 0.385 | | | -0.14 |
| Conscientiousness | | 3.75 | 0.55 | | 3.87 | 0.45 | | -1.03 | 0.469 | | | -0.23 |
| Extraversion | | 3.65 | 0.68 | | 3.58 | 0.56 | | 0.45 | 0.285 | | | 0.10 |
| Agreeableness | | 3.75 | 0.43 | | 3.80 | 0.45 | | -0.54 | 0.985 | | | -0.12 |
| Neuroticism | | 2.47 | 0.70 | | 2.91 | 0.46 | | -3.29 | 0.029 | | | -0.69 |
| Academic | | 3.96 | 0.98 | | 4.04 | 0.94 | | -0.37 | 0.561 | | | -0.08 |
| Fitness | | 4.04 | 0.88 | | 3.91 | 0.75 | | 0.69 | 0.391 | | | 0.16 |
| Bilingual | | 4.21 | 0.72 | | 4.21 | 0.77 | | -0.02 | 0.892 | | | -0.01 |
| Military Success | | 4.27 | 0.73 | | 4.19 | 0.62 | | 0.55 | 0.076 | | | 0.12 |
| Military Course Failures | | 4.84 | 0.48 | | 4.73 | 0.73 | | 0.82 | 0.153 | | | 0.19 |
| Bar Positions | | 3.53 | 1.05 | | 3.59 | 0.96 | | -0.264 | 0.508 | | | -0.06 |
| Disciplinary Measures | | 3.86 | 1.47 | | 4.14 | 1.29 | | -0.883 | 0.202 | | | -0.19 |

**Appendix H**

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