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## Exploring the Effect of Mindset on Project Manager Wellbeing

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### Abstract

*The wellbeing of Project Professionals (PPs) has been sparsely addressed despite some indications of being below the norm compared to non-project workers. This research highlights the need to provide PPs with tools that support their wellbeing and focus on their challenges. It explores the links between Growth Mindset (GM) and wellbeing (WB) for PPs and the factors they consider as having an impact on their wellbeing. Data was collected through an online survey from PPs in the UK but included non-PPs. The wellbeing scores of PPs were slightly significantly higher than the non-PPs, while their scores on GM were significantly lower. Challenges addressed by GM such as dealing with uncertainty, persistence in the face of setbacks and keeping a disposition to learn were not recognised by PPs as factors that affect their wellbeing. An intervention based on GM theory is not deemed to improve PPs' WB. GM is not significantly related to the wellbeing of the PPs; however, work balance and work relationships are reported as the main factors influencing their wellbeing.*

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*Keywords: Growth mindset, project professionals, wellbeing, project management, employees*

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### 1. Introduction

The project profession is relatively expanding [1] with more companies organising the delivery of their strategies through projects. The project profession is a challenging one since both technical and soft skills are required to bring

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a project to success. Unlike operational work where challenges are highly predictable, the project profession is characterised by a VUCA environment [2]. This has shown to have an impact on PPs' wellbeing. For example, according to the APM, the wellbeing of PPs ranked below the norm in several areas impacting their wellbeing. Similarly, a study found the wellbeing of PPs ranked in the bottom 50% against the US benchmark [3]. A rapid literature review in the project management literature showed that a lot of attention has been placed on the causes of stress while studies focused on wellbeing and its potential causes in a project-led context are more limited. This study, therefore, aims to fill this gap in the literature by exploring PPs' wellbeing and potential interventions to improve it.

There is an increasing interest in the wellbeing of PPs. This stands out against the backdrop of the wellbeing of the planet and people coming to the forefront in recent years. Wellbeing has been considered by the United Nations as part of the 17 Sustainable Development Goals, Goal 3: Good Health and Wellbeing [4]. In addition, in view of the principle of Stewardship, which encourages the ethical management of human and natural resources within the Responsible Project Management Manifesto [5], the project profession should benefit from contemplating this principle towards its members. There are numerous studies addressing the stress of PPs, however, dealing with it is just half the path towards wellbeing. It is necessary to measure life satisfaction and positive emotions as well since the measurement of only negative reactions provides an incomplete picture of people's wellbeing [6].

Positive correlation between mindset and wellbeing has been suggested. In previous studies, interventions to develop a GM have proven successful in increasing the wellbeing of individuals in an academic context [7],[8]. A GM has also been suggested as having a positive impact in projects, addressing the challenges of dealing with uncertainty [9] and setbacks [10] and the need to show a disposition to learn [11], which are traits favourable to excelling as a project professional. The present study aims to explore whether a change in mindset and development of a GM in PPs is conducive to an increase in their level of wellbeing and whether they consider it as a factor of relevance to improve their wellbeing. The results obtained could inform the development of effective interventions to increase PPs' wellbeing.

The next section of the paper reviews the literature on wellbeing, GM and the successful project professional. This is followed by the methodology. Findings are then discussed on PP's GM, wellbeing and the suitability of an intervention. The paper ends with conclusions and suggestions for future research.

## **2. Literature Review and Theoretical Background**

### *2.1 Factors affecting wellbeing at work*

Wellbeing involves multiple dimensions and has been considered an important factor for individual and organisational performance [12], [13]. Seligman [14] defines wellbeing as a state that involves positive emotions, engagement, relationships, meaning and accomplishment. According to Diener [15], psychological wellbeing represents an optimal human positive functioning and includes additional aspects such as: engagement and interests, supportive and rewarding relationships, etc. Wellbeing straddles across the literature on healthcare, philosophy, psychology, and sociology. These disciplines agree on three core dimensions of wellbeing: social, physical, and psychological [16]. Wellbeing at work has been defined as the creation of an environment that promotes "a state of contentment which allows an employee to flourish and achieve their full potential for the benefit of themselves and their organisation" [17].

In the context of wellbeing at work, Danna and Griffin [12] propose a framework to organise the aspects involved. Wellbeing at work is not only important because of the consequences it carries for the individuals involved, but there are also negative consequences that can affect the organisation [18].

### *2.2 The wellbeing of project professionals*

A review on workplace wellbeing from a traditional Human Resources management perspective highlighted interventions to improve wellbeing at work. However, limited research focuses on improving project professionals' wellbeing due to the unique challenges they face, such as temporary work and a dynamic environment [19]. Studies show that project professionals experience lower happiness and higher stress compared to other professions [3],[2]. To address this gap, professional bodies like the Association for Project Management have started considering wellbeing, with a focus on the individual [20]. Measuring psychological wellbeing is complex, but this research aims to capture project professionals' subjective experiences [15], [18].

### 2.3 *Mindset and wellbeing*

The psychological wellbeing literature demonstrates that some of the factors that contribute to how well people adapt to adversities can be cultivated and practiced. One such factor is mindset, defined as the way in which individuals view and engage with the world [21]. Growth Mindset Theory states that individuals hold two types of underlying beliefs about learning and intelligence that range from having a Fixed Mindset on one extreme to having a GM on the other end of the spectrum. A fixed mindset is held by those who believe that qualities like intelligence or talent are fixed and cannot be improved. In contrast, people with a GM believe that those abilities can be developed through dedication and effort, which creates a love of learning and resilience necessary for great accomplishments [22]. In terms of uncertainty, research has highlighted that a GM supports a higher adaptability to uncertainty and a more adaptive capacity in the face of future scenarios of work disruption [9].

Additionally, when faced with setbacks, an individual leaning towards a GM will respond by focusing on effort, persistent striving, and generation of strategies for problem-solving. A fixed mindset, on the contrary, predicts a less adaptive and helpless pattern of coping in the face of setbacks, characterised by a lack of persistence and a decrease in performance [10]. With reference to the need to adapt and for constant learning, a GM involves a mental disposition to consider intelligence and abilities as capable of change and improvement through learning. Setbacks are analysed in the light of what can be learned, not as a confirmation of an innate inability to deal with the problem at hand [10]. Mindset has proven to be key in determining not just how an individual behaves but also by having an impact on the level of happiness achieved in educational and learning settings [23],[7]. A few studies have explored the links between mindset and psychological wellbeing [7], [8]. Finally, a GM seems to be a relevant factor for the prediction of wellbeing and resilience and the disposition to learn [11].

### 2.4 *Growth mindset and the successful project professional*

As the PMI Talent triangle proposes, the project manager competence framework requires a project manager to cover the aspects of Business Acumen, Ways of working and Power Skills considered to be the ideal skillset for successful project managers in a VUCA world [24]. A GM has been linked to Power Skills, specifically related to coaching, and mentoring and Leadership traits in the context of work. A GM has shown the potential to improve these areas of the project profession by providing managers with a more accurate performance appraisal of employees and a tendency to increase helpful employee coaching [25] or developing the traits of transactional leadership [26]. There are differences in the working context for PPs that may affect their wellbeing that their counterparts might not experience. It is unknown whether a GM in PPs improves their wellbeing.

***Hypothesis 1: There is a significant and positive relationship between PPs' GM and wellbeing.***

## 3. **Methodology**

This research is based on previous studies showing a correlation between a GM and wellbeing [7],[8],[26]. Consequently, the research approach chosen was Deductive, which assumes that a clear theoretical position is developed before the collection of data. This approach was chosen since the nature of the research question called for using existing theory to test its validity [27].

The study used a survey to collect data to test the hypothesis. The survey was designed to collect quantitative data in the form of scores on a Likert scale for the two constructs of interest. The scales adopted were not modified as Psychological Wellbeing scale showed a Cronbach's alpha of  $\alpha = 0.86$  [15]. The GM scale Cronbach's alpha was calculated as  $\alpha = 0.89$  [28]. The survey also included a section with demographic and professional data. Open-ended questions were included to identify the potential confounding factors having an impact on PPs' wellbeing. It classified potential confounders in individual factors - Personal involvement in wellbeing by engaging in activities that support it - and Organisational factors – Organisational involvement in wellbeing by providing support- and the corresponding output data expected to be collected to run the quantitative analysis and generate a summary of factors. The population of interest for this research study were PPs. The target population were PPs currently engaged in project work. PMI estimates that the number of PPs in the world is 16.5 million [24]. For this research study, a sample size of 30 is the smallest sample size required. Statisticians have shown that it results in a distribution with the characteristics of a large enough sample [27].

### 3.1 *Data collection procedure and method of analysis*

A web-based survey was administered to potential respondents using different social media platforms such as LinkedIn. The guidelines for collecting and processing information followed General Data Protection Regulations. The study complied with Ethical Guidelines for Educational Research. The completed raw data were collated and analysed using Statistical Package for the Social Sciences (SPSS). The results were presented using descriptive statistics, t-tests, correlations, and ANOVA for testing the hypotheses. The open-ended questions were analysed qualitatively and summarized using the category "6 essentials", provided by the ASSET tool [29].

## 4. Findings

### 4.1 *Background of the respondents*

Amongst the PPs, most respondents were males with 53.6% compared to 42.9% females. In PMI's 2008 survey on Membership Satisfaction, 70% of members were male and 30% female [30]. In addition, according to APM's Women in Project Management Group, 28% of PPs were women in 2016 [31]. This means that before accounting for those who preferred not to say, the representation of women is higher in this sample than the population of PPs. Regarding age, about 66% of PPs in the sample ranged between the ages of 21 and 40 years old. This contrasts with the number provided by ArrasPeople [32] in a project management benchmark report where the age of respondents in this range for the UK was approximately 23% and for the rest of the world approximately 32%.

Amongst the PPs, about 41% of participants had 5 or less years of experience. The figures from the APM 2021 Salary and Market Trends survey of 2,626 members, showed that 34% had 5 or less years of project management experience [33]. The sample in this study thus had slightly more experienced PPs. In terms of work arrangements, 76.8% of the PPs were in permanent employment, with a few (8.9%) on fixed-term contracts but none were apprentices or trainees. The APM reported 82% of their sample to be working in permanent employment, and fixed-term contracts represented 4% [34]. In this sample, the representation of fixed-term contracts is slightly higher than in the APM 2019 report.

### 4.2 *Current roles, sector of work and PM qualifications of the PPs.*

The PPs in the sample held different roles including Project Manager (17.9%), Senior project manager (8.9%), Consultant (8.9%), Programme Manager (7.1%), Head of Projects/Programmes (7.1%) amongst others. With reference to the industry, the most represented was Financial Services, leading with 16%, followed by IT with 14.3%. In terms of industry, the APM report on Wellbeing of PPs survey showed that the top three sectors where PPs were employed was Construction and the built environment 14%, Defence 11%, Energy, and utilities 9%, Central Government 7%, Consultancy with 7%, IT with 4%, Financial Services with 4%, and Business and professional services with 2%. This suggests that in this sample, Financial Services and IT have more representation than the

population. Regarding qualifications, it is worth noting that 55.3% (N=31) of participants did not have any of the qualifications mentioned in the survey while the rest of PPs was evenly distributed between all the options.

### 4.3 Hypotheses Testing

Amongst the PPs only, the study revealed no significant relationship between their growth mindset and wellbeing ( $r=-.065$ ,  $p=0.635$ ). Therefore, the hypothesis that there will be a significant and positive relationship between PPs' GM and wellbeing was not supported. The data for the study also revealed the PPs (5.92) scored significantly higher on wellbeing than their non-PPs (5.58) counterparts ( $t=1.671$ ,  $p<0.05$ ). On the other hand, a baseline comparison of the mean scores on GM shows that the PPs' (4.39) had a significantly lower GM than their non-PPs (5.25) counterparts ( $t=-2.073$ ,  $p<0.05$ ). The influence of personal engagement in wellbeing practices and organisational support for wellbeing practices on PPs' level of wellbeing was assessed. The data revealed that PPs who engaged in wellbeing activities scored lower (4.18) on GM compared to their counterparts who did not (4.80). The difference was, however, not significant ( $t=-1.244$ ,  $df=54$ ,  $p=0.109$ ). On the other hand, the PPs who engaged in personal wellbeing practices scored significantly higher (6.04) on wellbeing than those who did not (5.69) engage in wellbeing practices ( $t=1.793$ ,  $df=54$ ,  $p=0.039$ ). Thus, personal wellbeing practices significantly improved the general wellbeing of the PPs but not their growth mindset. It is worth noting that, in this sample, the percentage of PPs who engage in activities to improve their wellbeing at work was 66.1% (37 out of 56 PPs). The numbers from the CIPD 2022 report on Health and Wellbeing show that of the 1,056 organisations surveyed, 64% engage in health and well-being initiatives, which is somewhat comparable to the sample in this study [17].

The influence of organisational intervention or support on the general wellbeing and growth mindset of the PPs was also assessed. The data, however, did not show any significant differences in the growth mindset ( $F= 0.533$ ,  $df=2,53$ ,  $p=0.578$ ) and the wellbeing ( $F= 1.276$ ,  $df=2, 53$ ,  $p=0.288$ ) among the PPs who either received or did not receive or were unaware of organisational support for their wellbeing. Thus, organisational interventions for wellbeing did not have a significant impact on the growth mindset and the general wellbeing of the PPs. Generally, 35 or 62.5% of the PPs affirmed that their organisations offered support for wellbeing, 10 (20%) stated that their organisations did not address wellbeing whilst 9 (18%) were unaware of any organisational support for their wellbeing. The CIPD report on Health and Wellbeing at Work 2019 revealed that of 1,056 organisations across the UK, only about 16% indicated that their organisations were "not currently doing anything to improve employee health and wellbeing" [17]. In the case of PPs in this study, this proportion is slightly higher (20%).

### 4.4 Factors affecting the wellbeing of project professionals.

The last part of the survey required participants to answer an open-ended question to identify any factors that could be affecting their wellbeing. The question read "1. What could be the most important aspects of your working life that, if changed, would have the largest impact on your psychological wellbeing?" The aim was to explore the factors that were most frequently mentioned by participants and compare them to the results of those obtained by the APM report on the wellbeing of PPs. The answers were then grouped according to the categories used on the ASSET scale [2],[29]. The 3 top factors mentioned by PPs to have an impact on their wellbeing were a balanced workload, work relationships and a sense of purpose.

## 5. Discussion

PPs reported lower scores in GM than non-PM professionals. First, to clarify, a comparison of the GM scale between PPs and non-PP samples was justified with a study that showed that the measurement invariance for the GM scale can be reliably applied to adolescents (age 14–19 years) and adults (age 20–64 years) meaning that researchers can also compare correlations and means across groups based on observed scale scores [35]. Such study has suggested that adults may have a slight tendency towards a fixed mindset which might reflect the fact that intelligence, and the desire to increase it, is less salient in populations that are no longer in education [35]. Although PPs may adhere more to a fixed mindset than their non-PP counterparts, meaning they may assume that intelligence is a fixed trait, a great emphasis on Lessons Learned is explicit in the project management philosophy. For instance, one of the principles of

a PRINCE2 project is that “the project management team learns from experience, which means that lessons are sought, recorded and actioned throughout” [36]. For PPs, that learning disposition could be acquired by the practice of project management principles and might be a factor that improves wellbeing when facing challenges since challenges are seen as an opportunity to learn and improve in future projects [36].

PP's score is higher in wellbeing than the baseline of non-PP. This result could be due to PP's self-selection having an impact on wellbeing scores, given that maybe respondents who are aware of the topic and find it of interest were inclined to answer the survey. This could result in a sample with a tendency to have higher scores in wellbeing. This could also be the reason for 63% of respondents stating that they engage in wellbeing practices. It would be interesting to know how different those are who didn't participate to those who did. A randomised sampling strategy could help to answer this. Another reason could be the understanding that PPs have of dealing with setbacks as being a part of their job. For non-project management professionals, managing projects may not be part of their daily work routines. Also, it could be argued that for a project professional, first come the project results and then the learning, which is acknowledged as part of the process and as an important input to apply to future projects, but not an end. For instance, although a GM seems promising to improve wellbeing, an experimental study in a controlled setting has suggested that specifically in IT, when projects encounter a serious setback, a GM could give place to project escalation [37]. This could be translated as, when the learning is prioritised over project success, it could be detrimental for the project and thus for the wellbeing of the PP. Finally, individual engagement in wellbeing practices should be measured and controlled for alongside the measures for a GM to be better able to isolate the effect of GM on WB. This study showed that PPs who engage in WB activities report higher scores on WB than those who do not.

Factors directly connected to psychological wellbeing were not reported as the main concern for PPs in this study. The analysis identified balanced workload (25%) as the main factor that affects PPs wellbeing, corresponding with the result of the APM 2019 survey. A lack of balanced workload was also reported in the CIPD Health and wellbeing at work 2022 report [17]. In addition, work relationships (12.5%) and sense of purpose (12.5%) were also considered important factors impacting the wellbeing of the PPs surveyed for this research. The strain on psychological health was only reported by 7% of PPs. The PPs were also asked about the ways in which their organisations address wellbeing. The most common practices were ‘Access to an external provider of WB support’ (such as hotlines or meditation apps) and ‘Internal support groups created by the organisations’, both with 18% of the mentions. ‘Management support’ and ‘Flexibility of work’ appeared second with 16%. ‘Counselling services’ and ‘Having supportive work relationships’ were each mentioned by 11% of respondents. Finally, ‘Mental health days’ were mentioned by 9% of respondents to this question. A third question explored how do PPs improve their wellbeing at work. The most popular strategy mentioned by PPs was ‘Connecting with coworkers’ with 26% (i.e., informal chat with colleagues, mingling with people as much as I can), followed by ‘Sporting activities’ (19%) and 16.7% favouring ‘Taking care of their mental health’ (with activities like meditation, therapy, and mental health days). ‘Hobbies’ (12%) and ‘Connecting with others outside the workplace’ (9.5%) were also used by the PPs. Other strategies like taking breaks, time management and care for their physical space (15%) were mentioned. There was only one mention of a ‘Change of mindset’ as a strategy to improve their wellbeing.

The results suggest that an intervention addressing GM may just marginally increase the wellbeing of PPs. The factors that affect their wellbeing are not related to psychological wellbeing and more directed towards external aspects of their work. These results could be the product of the research design and the survey questions although they might point to the fact that PPs have already incorporated and assumed uncertainty, dealing with setbacks and having a disposition to learn as part of the profession, thus taking a less prominent role as factors that affect their wellbeing. However, the findings from this research point to what activities are already accepted by PPs, which can help in the design and implementation of new initiatives tailored to them. Other factors such as finding a balance between work and personal time and improving working relationships could prove beneficial to improve wellbeing.

## 6 Conclusions, limitations, and future research directions

A training intervention to improve PPs' wellbeing by increasing their GM shows marginal potential for success. A GM is not significantly related to PPs' wellbeing and the factors that PPs recognise as having an impact on their wellbeing relate to work-life balance, work relations and resources, and communication. Still, this research highlights the potential usefulness of using theory from psychological studies and the importance of testing it before implementing it to what is most likely to succeed in practice. Although the underlying tenets of the theory of GM seemed to make it suitable at first to address PPs' challenges, it did not prove, with this sample, to be supported. It is worth the effort to understand what PPs need to meet the demands of their role, and carefully tailor what works in a non-project organisation to a project arena.

The sample size is relatively small with implications for generalization. In addition, a mixed methods design, could have complemented the research. The scale used to measure wellbeing is not specific to workplace wellbeing. The use of an instrument to measure wellbeing at work could be useful to determine what other aspects influence this construct. The baseline for comparison for GM and wellbeing belongs to a different context than the project profession, although the validity of its use has been justified as explained under Discussion. To differentiate the effects of organisational interventions and GM, further research should be done in the same organisational environment to reduce the effect of this confounder. Additionally, individual, and organisational engagement in wellbeing practices should be measured and controlled alongside the measures for GM, to be better able to isolate the effect of a GM on wellbeing. Future research would benefit from comparing groups with similar characteristics from projectised and non-projected organisations, to confirm if the GM – Wellbeing link for PPs stands true. Also, the comparison group data or baseline could be collected at the same time as the data from the target group of PPs. Future research could build on this research to develop a framework to understand and address PPs' wellbeing that incorporates the challenges they experience. This framework could be available freely to organisations and individuals interested in improving the wellbeing of PPs. Findings can be applied to the creation of wellbeing initiatives tailored to the project profession.

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