

Psychology and Project Management

Adopting the latest advances in the field of psychology for effective project management.

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Technical Paper

Theme: Mantra for Innovative Project Management

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Abstract

In our knowledge based economy the influence of human factors in projects is growing rapidly. Project managers are expected to manage hard factors of scope, schedule, budget etc. on one side and human aspects on the other side to achieve project success.

This Article elaborates how Project Managers can leverage recent advances in the field of psychology to manage the human aspects effectively. For example, Evidence Based Management, a branch of Psychology, provides a reliable and valid methodology for project managers to make decisions based on best evidence currently available in management and decision-making field. Likewise, Positive Psychology which focuses on what goes well will enable Project Managers to build more productive teams. Industrial/Organizational Psychology on the other hand offers solutions for effective internal and external stakeholder management.

The main discussion point of the article includes

- The dimensions of human interactions at different levels covering Organization, Project Team and an Individual in a project
- The various touch points across the project management lifecycle for the above dimensions of human Interaction and associated challenges
- New advances in the field of psychology and how they can be used to address the challenges

The article takes examples from real life case studies and provides implementable recommendations for today's project managers. This will ensure effective human factor management across the project management lifecycle.

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Introduction

People mostly associate project management with only a set of methodologies and frameworks required for successful execution of a project. Studies shows that project managers spend 80% of their time on communication¹. Hence managing human factors is an equally important component that is crucial for any project success. Project managers are expected to manage hard factors of scope, schedule and budget etc. on one side and human aspects on the other side to drive successful outcomes.

Psychology is the science of mental behavior and the human mind, and the professional application of such knowledge toward the greater good².The latest advances in psychology can help project managers understand the human factors closely, analyze their interactions effectively throughout the project management lifecycle and manage them efficiently to drive desired project outcomes.

Need for Psychology in Project Management

We conducted a survey across project managers in the PMI Chennai chapter knowledge sharing session held on 24th May 2014. The survey, in the form of questionnaire, tried to capture the awareness, importance and usage of psychological concepts in the industry. The responses were received from project managers of leading Indian IT companies like TCS, Infosys, IBM, HCL, CapGemini and others. One of the question that we asked was on the need of psychology in project management. An outstanding 100% of the respondents (Figure 1-a) agreed that psychology can be used in different aspects of project management. An important question here is, are the project managers currently using psychology scientifically or by intuition? Never the less the survey result clearly states that there is a strong need of psychology in today’s project management.

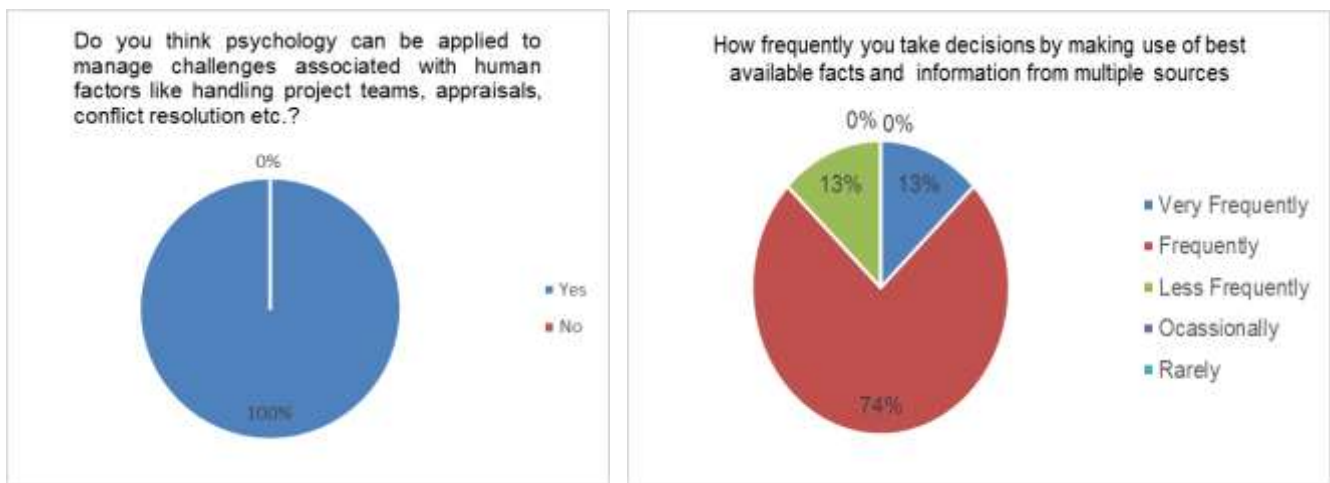


Figure 1: (a) Survey result - need for psychology (b) Survey result – evidence based psychology

Latest advances in the field of psychology that can be applied in project management

Though there are many fields of psychology, the three major areas which provide useful inputs for project management are evidence based psychology, positive psychology and organizational psychology.

We will describe them in brief and also correlate these concepts on how project managers can use them in their day to day management.

A. Evidence based psychology (management)

Evidence-based psychology is about making decisions through the conscientious, explicit and judicious use of the best available evidences from multiple sources so as to increase the likelihood of a favorable outcome³. Most project managers today appreciate the benefits of the same and have started implementing the same in one way or the other. In our survey almost 87% (Figure 1-b) of the project managers responded in favor of it.

B. Positive Psychology

Positive psychology is defined as ‘The scientific study of positive experiences, and positive individual traits, and the institutions that facilitate their development’⁴. It focuses on ‘positive’ questions like ‘why are employees happy’, or ‘what are the benefits of employees being happy’. The answers to these questions are very useful for project managers since they provide us with insight in crucial project management problems like ‘how should I motivate the team?’ or ‘how can I stimulate creativity within the team?’ One aspect of application of positive psychology in project management is having positive goals that are linked with personal goals of the associates. In our survey 70% of the project managers agreed that they align team member goals with their individual aspirations (Figure 2-a).

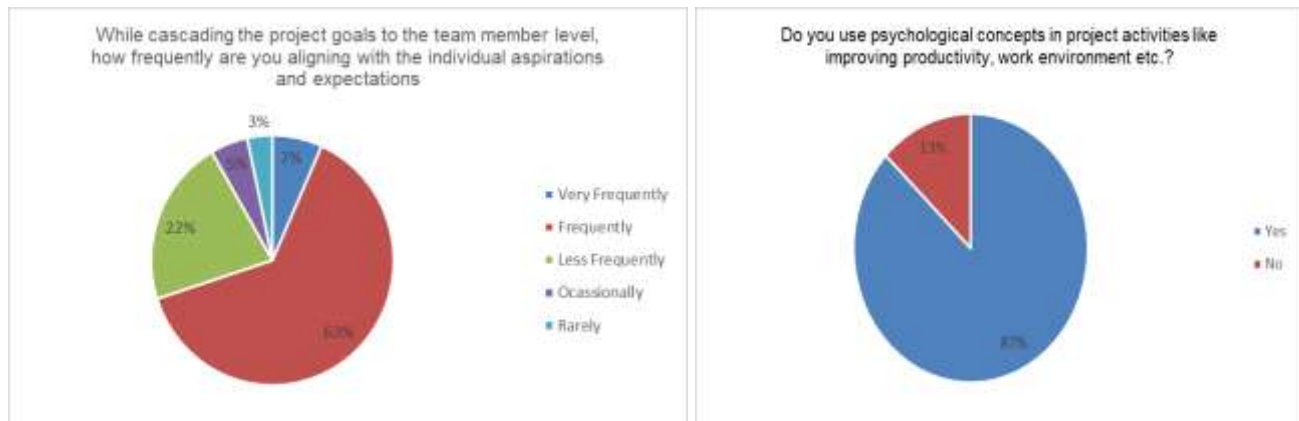


Figure 2: (a) Survey results - aligning project goals (b) Survey results – current usage of psychology

C. Organization Psychology

Industrial or organizational psychology on the other hand is the study of humans in the workplace⁵. Though this area is of much interest within the human resource (HR) department of the organization, it is quite essential for project managers to understand and leverage its concepts in day to day activities.

Relevance of Psychology in project management

In another survey question we asked the respondents whether they use psychological concepts in day to day project activities. A surprising 87% responded in ‘yes’ (Figure 2-b). On further interaction we found that most of

the usage was intuition based and limited to specific areas of project management and there is a wider scope for psychology to play.

Framework for applying psychology in different phases of project management

Figure 3 illustrates the framework which can be used for applying different concepts of psychology across the project management lifecycle. The first step is to identify various activities involving human interactions that a project manager performs across the project management life cycle. Second step is to identify the challenges faced in performing these activities. The third step is to identify specific concepts of psychology (which can be from either of the three fields) that can be applied across the project management phases to address these challenges.

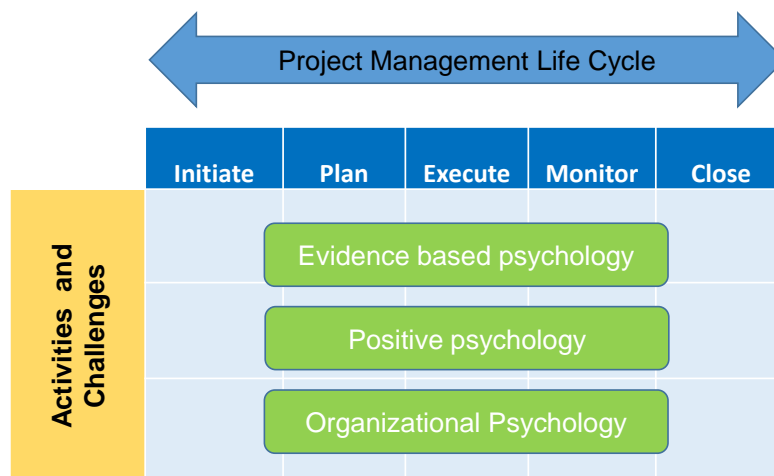


Figure 3: Framework for applying psychology in project management

Solutions for applying psychological concepts in project management

The various human interaction touch points and challenges faced by a project manager across the project management life cycle and the psychological concepts that can be applied to address them are highlighted in Figure 4 and discussed briefly subsequently. These psychological concepts are based out of the three fields of psychology.

Phases	Key activities	Key challenges where psychological concepts can help.
Initiate (I)	<ul style="list-style-type: none"> Setting Project Vision alignment Getting Key Stakeholder Buy in 	<p><I#01> How to effectively negotiate with a stakeholder?</p> <p><I#02> How to translate the project vision down to the team member?</p>
Plan (P)	<ul style="list-style-type: none"> Defining strategy for project Execution Resource Identification Communication Plan 	<p><P#01> While planning should you focus on results or on process?</p> <p><P#02> How to make team members master a work</p>

	<ul style="list-style-type: none"> • Strategy For Stakeholder Management • Requirement Gathering 	<p>required for the project?</p> <p><P#03> Should you have perfectionist in your team?</p>
Execute (E)	<ul style="list-style-type: none"> • Develop Project Team • Team management • Stakeholder Engagement • Communication Management 	<p><E#01> How to cultivate more ideas during brainstorming sessions?</p> <p><E#02> Should you focus on the effort your team is putting or on the talent they have?</p> <p><E#03> How to motivate employees to work efficiently?</p> <p><E#04> How to engage stakeholders effectively?</p>
Monitor (M)	<ul style="list-style-type: none"> • Change Management • Communication Control • Issue Management 	<p><M#01> How much free time should you give to your team members during work?</p> <p><M#02> How to increase the team productivity?</p>
Close (C)	<ul style="list-style-type: none"> • Lessons Learnt (Failed /left out project) 	<p><C#01> Should you ask your team member to focus on their strength or weakness for future?</p> <p><C#02> How to improve workplace innovation in the upcoming project?</p>

Figure 4: Project management challenges that can be addressed by psychology

The psychological concepts to address the various challenges addressed above are explained below in brief.

I#01: How to effectively negotiate with a stakeholder?	
Food for thought	If you are a manager and you want to negotiate with a stakeholder or an employee, would you be the first person to give the offer or would you wait for the other to put his offer on the table first? Interestingly based on our survey (Figure 5-a) 75% of project managers don't make the first offer.
Recommended Solution	Give your first offer only if you know what the other person needs and that both have different expectations ⁶ . E.g. say you know your team member needs long term onsite and you can provide only medium term, during negotiation give him your first offer of short term and then negotiate with him to medium term onsite.
Supporting Psychological concept	You should make the offer first when you are fairly certain that you and the other party disagree. That will allow you to set an anchor that influences the rest of the negotiation. When you are not certain whether you agree, though, you should wait for the other party to make an offer. Their offer will give you information about whether you have similar goals or

different ones.

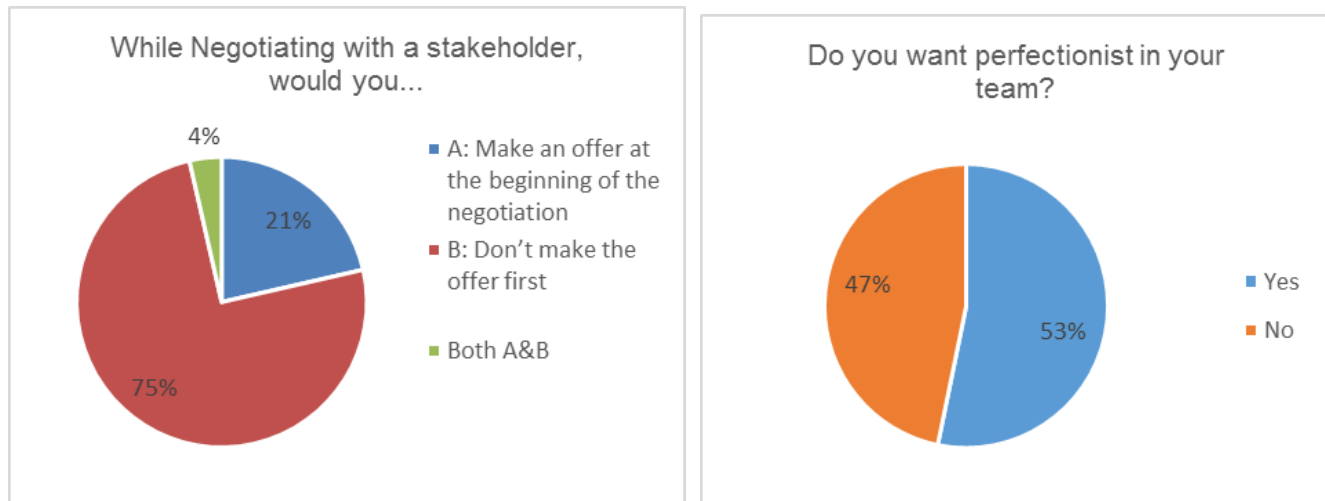


Figure 5: (a) Survey results – stakeholder negotiation (b) Survey results - perfectionist as a team member

I#02: How to translate the project vision down to the team member?	
Food for thought	Are your team members aligned to the project vision and goals?
Recommended Solution	Provide positive goals to your team members that are linked to the personal goals of the associates and also aligned to the project goals.
Supporting Psychological concept	For the performance of the team members it is important that the goal the team is working on is meaningful to them and linking to their purpose in life. This means that it relates to higher values. E.g. the goal to organize a conference without problems does not provide a lot of meaning. The goal to organize a conference where people can learn about a topic and improve their professional life can be meaningful to people.

P#01: While planning should you focus on results or on process?	
Food for thought	How would you evaluate and encourage an associate? By the end result he achieves or by the process he follows (irrespective of end result)?
Recommended Solution	Encourage process orientation. ⁶
Supporting Psychological concept	Problem with too much focus on end result is that it acts like a finish line. A finish line marks a stopping point and once we stop, we must start all over, and starting all over is harder than starting. Most of the time, once we have decided we've achieved success, we tend to stop moving forward. Focusing on process of winning rather than the winning as the end result itself can resolve this challenge.

P#02: How to make team members master a work required for the project?	
Food for thought	How to make associates master a work, quickly and in short time?

Recommended Solution	Divide the work into small parts and give them. ⁶ Try avoiding giving big tasks at first go.
Supporting Psychological concept	One of the best ways to motivate people is to stimulate a desire for mastery. People are naturally curious and this curiosity helps people master their environment. People want to learn, improve, and master skills and knowledge. One of the things you can do to stimulate this sense of mastery is to break things into small steps. Why is that important? Because it makes it easy for people to see their progress, and seeing progress makes people want to keep going.

P#03: Should you have perfectionist in your team?

Food for thought	Do you want perfectionist in your team? As per our survey (Figure 5-b) almost 53% of the project managers want one in their team.
Recommended Solution	Perfectionism generally doesn't help in long run ⁶
Supporting Psychological concept	While procrastination is often confused with plain laziness, sometimes it is the byproduct of perfectionism. The daunting nature of the unrealistic goal of perfection can be so intimidating that it leads to a crippling fear of beginning. This is particularly true when one's self-esteem is closely tied into (or contingent) upon success.

E#01: How to cultivate more ideas during team brainstorming sessions?

Food for thought	During brainstorming on a problem how do you analyze a. Think about what all positive aspects the system can have (and find corresponding solution to achieve it) b. Think of ways the system can fail (and find corresponding solution to prevent it). As per our survey (Figure 6-a) almost 63% of project managers would prefer the second methodology.
Recommended Solution	Think of positive scenarios during brainstorming. Ask "I wonder what would happen if..." and call for a positive answer to the question. This encourage new ways of looking at situations in order to generate new strategies and more compelling visions for the future. ⁶
Supporting Psychological concept	Research have shown that when each team member is involved in answering the "what-if" question (I wonder what would happen if... and look for positive answer to this question) and they see that their input matters, they are more motivated to contribute to making that "what-if" come true.

E#02: Should you focus on team's effort or talent?

Food for thought	While motivating an associate do you praise his talent (you are very good in coding) or do you praise his efforts (you have put really good effort in coding)?
Recommended	Praise should focus on effort ("You worked hard on that.") ⁶ . As per our survey (Figure 6-b)

Solution	63% of project managers motivate effort rather than talent. This is a good development.
Supporting Psychological concept	Some praise reinforces a belief to the associate that he has certain traits or talents (like he is good in coding). This makes them believe that their abilities are rooted in talent only. When they believe they have a particular talent, then when they have difficulty in that area, they react as though they have reached the limit of their talent, and they are prone to give up. So in this case the associate who thinks he has a talent of coding may give up when he is asked to code in a different language and finds it difficult to master.

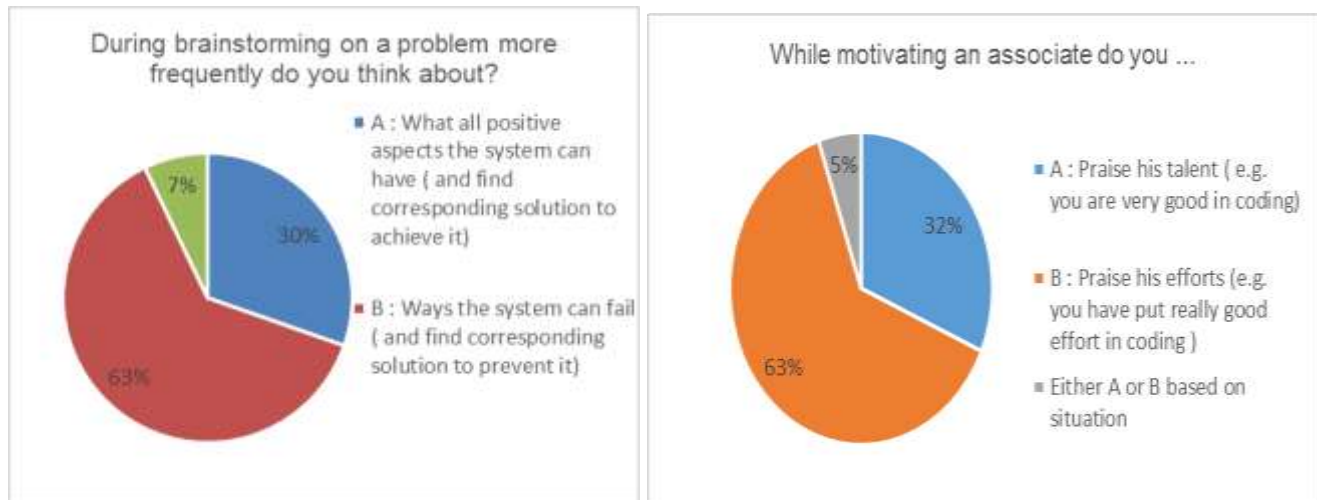


Figure 6: (a) Survey results - idea brainstorming (b) Survey results - motivating an associate

E#03: How to motivate employees to work?	
Food for thought	During office time, are employees more interested in work or activities outside work?
Recommended Solution	Workplace gamification like AGILE methodology. ⁶
Supporting Psychological concept	Agile SCRUM is a wildly successful development strategy in many sectors of the economy (but especially in software development). Part of its charm is that it breaks large projects into quests (called "sprints") that take one or two weeks each. It allows each member of the team to contribute to the completion of the sprint in his or her own unique and essential way, and it provides regular feedback that leaves team members with an ever growing sense of competence.

E#04: How to engage stakeholders effectively?	
Food for thought	Are you facing lot of challenges in managing your stakeholders?
Recommended Solution	Use stakeholder analysis, identification and perception matrix to profile and engage your stakeholders.
Supporting Psychological	<ul style="list-style-type: none"> The Stakeholder Identification Matrix affords you the opportunity to list who the stakeholders are, how important they are in the project's effectiveness, and give reasons

concept	<p>why/why not.</p> <ul style="list-style-type: none"> • The Simple Stakeholder Analysis Matrix is usually a matrix that measures each stakeholder's degree of influence and importance as pertains to a project. • The Stakeholder Perception Matrix is measures both individual groups and group clusters that have identifiable problems. The aim is to map out solutions to those problems and the stakeholder's anticipated responses.
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M#01: How much free time should you give to your team members during work?

Food for thought	How much free time and space should you give to employees in office?
Recommended Solution	Work environment should be such that employee has some time of his own, have more opportunities. ⁶
Supporting Psychological concept	Scarcity of time (keeping employee always busy), food (busy enough to skip lunch), opportunity (doing monotonous things), or even friendship (lack of friend circle in office), can create a narrowed mindset in anyone.

M#02: How to increase team productivity?

Food for thought	Are there too many distractions for your team members during work? Are they focusing less on work?
Recommended Solution	Give dedicated space and environment for associates to concentrate on their work with no distractions. ⁶ For eg: for tea breaks, dedicate particular time where entire team takes break instead of everyone going ad-hoc.
Supporting Psychological concept	Research with people doing work that requires mental focus found that when their thoughts were interrupted by nearby conversations, or e-mails, or text messages, or whatever, it took them 15 to 20 minutes to get back into the mental swing of things and fully return to the task at hand.

C#01: At the end should you ask your team members to focus on their strength or weakness for future?

Food for thought	Should you focus on your strength or on their weakness? As per our survey almost 53% of project managers (Figure 7) focus on their weakness instead of their strength.
Recommended Solution	Focusing on the strength has its benefits but you should be cautious also and look at long term scenario before blindly focusing on strengths only. ⁵
Supporting Psychological concept	<p>Instead of blindly focusing on strengths ask yourself these questions first and then take an informed decision</p> <ul style="list-style-type: none"> - What are my present comparative strengths? - What do I want my comparative strengths to be in 5 years - What weaknesses will I have to improve in order to have better strengths in the future

C#02: How to improve workplace innovation in the upcoming project?	
Food for thought	Is your workplace innovation lagging behind your peers and competitors?
Recommended Solution	<p>You need to change the way people in your team work. ⁶</p> <ul style="list-style-type: none"> • DON'T Endorse multitasking.DO Promote prioritizing and strategic execution. • DON'T Let speed rule.DO Encourage slower, more thoughtful responses on important projects.
Supporting Psychological concept	<p>Too many tasks that require regurgitating and downloading massive amounts of detailed information squelches creative thought.</p> <p>Multitasking fatigues the brain and makes it less efficient. Increase productivity by guiding team to regularly establish top priorities and by creating an environment that encourages individuals to focus deeply without distractions on one task at a time, even if for just 15-minute intervals.</p>

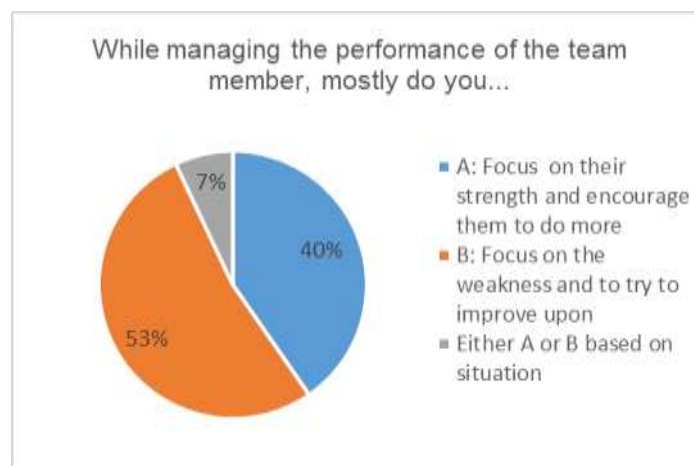


Figure 7: Survey results - focus on strength or weakness

Conclusion

Psychology can help resolve many challenges project managers are facing today in managing human factors throughout the project lifecycle. For e.g. many research have proved that implementing the concepts of positive psychology in project management have led to more productive workers, who work more hours efficiently and are less likely to leave for another job⁷. The psychology concepts described in this paper are easy to adopt and practice in day to day life. Going forward we strongly believe that project managers should be given relevant training on psychological concepts to manage human resources more effectively.

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