Pracademic Project Leadership – The View from the Barber Shop Mirror [1, 2]

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Abstract

Project and Program Managers are constantly balancing the need to be both strategic and tactical in order to increase the effectiveness and efficiency of their efforts. As the current working environment becomes more VUCA (Volatile, Uncertain, Complex, Ambiguous) driven, it forces the need for new ways to think about tactical Positive and Negative Risks. In addition to the added value created by this clarity, the current working environment requires additional exploration of day-to-day Problems, Issues and Concerns within a modern program or project.

***Keywords*:** Pracademic, Project Leadership, Program Leadership, Project Management, Acceptable, Infinity, VUCA, Tactical Risk, Strategic Risk Management, Problems, Issues, Concerns.

Introduction

The purpose of this paper is to explore the current thinking attitudes, mental models and paradigms about Program and Project Risk. Additionally, it is to provide a pracademic structure for understanding the difference between strategic and tactical risk identification and interpretation. At the same time, a key element of the publication is to enlighten readers about the need to fully explore their problems, issues and concerns as a Program or Project Manager.

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If you've ever been between two mirrors that face each other, such as in a barbershop or a beauty salon, you're familiar with the seemingly endless line of images fading into the distance.

Figure 1.0: Infinity Mirror

This phenomenon, illustrated in the image above contains an extreme number of multiple images in two parallel mirrors, known to physicists as the "barbershop effect" or the Infinity Mirror. The infinity mirror (also sometimes called an infinite mirror) is a configuration of two or more parallel or nearly parallel mirrors, creating a series of smaller and smaller reflections that appear to recede to infinity. This is the metaphor we need to use for evaluating and modeling the constant risks that we encounter in projects and programs. The term pracademic, for this publication, is tailored to refer to someone who is both an academic (learner) and an active practitioner in their subject area (Posner, 2009). It is the clear understanding of both theory, evidence-based research, and years of practical experience in the field of Program and Project Management.

Pracademic VUCA Strategy

Project Management is the process of leading the work of a team to achieve all project goals within the given constraints. The primary constraints for pracademic program and project managers are scope, time, and budget. The secondary challenge is to optimize the allocation of necessary inputs

and apply them to meet pre-defined objectives by increasing the effectiveness and efficiency of the project resources by providing value.

Project Management, as proposed by Larson & Gray (2021), requires a balance of critical skill sets and key behaviors that exist today in a socio-technical approach. The technical dimension (science) includes planning, scheduling and controlling aspects of a project. The socio cultural dimension (art) involves the management of a project. The VUCA environment, experienced in programs and projects, requires a new set of thinking and strategy skills. Strategy skills refer to the particular set of individual skills required to increase the effectiveness and efficiency of project activities during the completion of a VUCA Project.

VUCA is an acronym developed in the US Army War College in the late 1980's to describe a new kind of world that was sprouting up after the end of the cold war. The term was based on the words Volatile, Uncertain, Complex and Ambiguous which were drafted after review of the work of Warren Bennis and Burt Nanus in their 1985 publication of "Leaders, Strategies for Taking Charge" which focused on the spastic change created by complexity and collective intolerance of ambiguity.

Currently, VUCA is a newly accepted business term for Volatility, Uncertainty, Complexity and Ambiguity. Each of these elements creates a different unique challenge in a project and can cause tremendous impacts to project cost, schedule and quality constraints. Typical examples of these impacts can be seen in the following simple project examples:

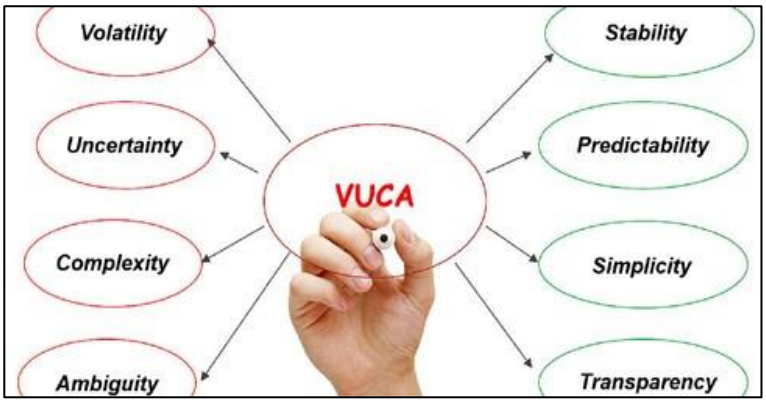
- ***Volatility*** – lack of people resources working together. The project exhibits the possibility for rapid and unpredictable change that may emerge from nowhere and last for an unknown duration. Managing or leading a project in a volatile environment means that there will be significant challenges that will disrupt your plans and day-to-day activities. This requires the inverse elements of "Project Stability".
- ***Uncertainty*** – lack of clear planning for the team to execute the project tasks, sub-tasks and milestones. The project may have a lack of understanding and awareness of issues, events, paths to follow, or solutions to pursue. Each situation you encounter may be impossible to predict the outcome. This requires the inverse elements of "Project Predictability".
- ***Complexity*** – lack of technical people resources who can accomplish the performance tasks required. The project or its environment is difficult to manage due to human behavior, system behavior, and ambiguity. Additionally, the components of the project

are connected and interconnected in non-obvious ways. This requires the inverse elements of "Project Simplicity".

- ***Ambiguity*** – lack of initial clarity into the scope of a project or continual unchecked scope creep. The project exhibits a state of being unclear, having difficulty in identifying the cause of events. Additionally, information can be interpreted in different ways depending on the audience. This requires the inverse elements of "Project Transparency".

By flipping the elements to the inverse, we can create a connected and interconnected flow to highlight the potential resolution to the VUCA elements. Each of the inverse elements has known process steps, behaviors, and actions that can be completed. These can be embraced and modeled through the use of a series of personal project mastery key skills that can lead to project success optimization. Mastery is demonstrated in the ability to expand your thinking, by challenging your preconceived assumptions recognizing traditional paradigms. A multifaceted project management model that represents this "flipped" or inversed philosophy and thinking is called SPST (Stability, Predictability, Simplicity, and Transparency) which can be seen below in figure 2.0.

Figure 2.0: SPST Model



Each of the four inverse objectives identified can offset a negative impact from the VUCA elements and provide an opportunity to help a program or project be more successful.

Project Stability Inverse

Project Stability refers to a situation in which something such as the scope, cost, quality and resources, or the system can continue in a regular and successful way without unexpected changes. To facilitate this, we need honest and open dialog to create positive communication models that can help eliminate or minimize project conflict. A "Baseline" must be established that locks the scope and plan without a rolling baseline of continued scope creep, cost overruns and slips to

schedules. Any additional scope that impacts the current plan and schedule must be vetted thru a change control board or conversation with the required stakeholders for consensus and agreement. The project team is required to function in a role where they accept unknown-unknown risks and positive plans to move forward are developed.

Project Predictability Inverse

Project performance is based on getting the right people, at the right time, in the right place, doing the right thing. A predictable, clear plan on how to accomplish that is critical to project performance. The immediate tasks, future tasks, and contingency planning for unknown and known risks must be in place with pre-defined criteria for embracing or exploiting opportunities. There is an expectation of predictability or likelihood at which an event is going to occur. Predictability helps build trust that can allow people to synchronize their actions in mutually productive ways which helps move your organization forward in a synergistic positive direction. Project predictability is based on accurately predicting the outcome of a project early enough so that it's possible to identify trouble spots, take corrective actions and keep the project on course.

Project Simplicity Inverse

A Project has a required "Start" and "Finish" point that may encompass many technical obstacles. These technical obstacles require subject matter experts (SME's) not generalists. Those required SME's must be on board and pre-aware of the new thinking required. Project Managers and Leaders will need to help decompose technical requirements into doable objectives that are understandable and achievable. Simplicity does not mean easy; it means that there is a simple state of being that is uncomplicated or uncompounded. Simplicity means that there is a minimum amount of effort required and dedicated to unexpectedness.

Project Transparency Inverse

Projects are unique work efforts that require a full understanding of the project deliverables. There must be a flexible level of change available with on-ramps and off ramps for movement in the scope and quality of the project. Clear communication with the project stakeholders, suppliers and subcontractors is essential with a clear chain-of-command including a communication plan with an escalation plan. Transparency in project communication allows all team members to see critical aspects and decisions of a project that might impact their joint efforts. Knowing who is accountable for tasks and sub-tasks helps to create accountability and ownership.

SPST Analysis Chart Creation

Each of these four SPST "Inverse" objectives offsets a specific area of the VUCA impacts and allows the opportunity to identify specific skills, strategies and methods to help prepare project and program managers to make informed decisions, effectively plan, and be flexible to change, to find solutions to project problems. To get started, you need to create a SPST Analysis Chart using a predefined template with inquiry trigger questions, seen in blue text. The chart is broken down into a Current State and a Desired State philosophy allowing you to create a strategic gap analysis for how to anticipate, rank and resolve VUCA elements.

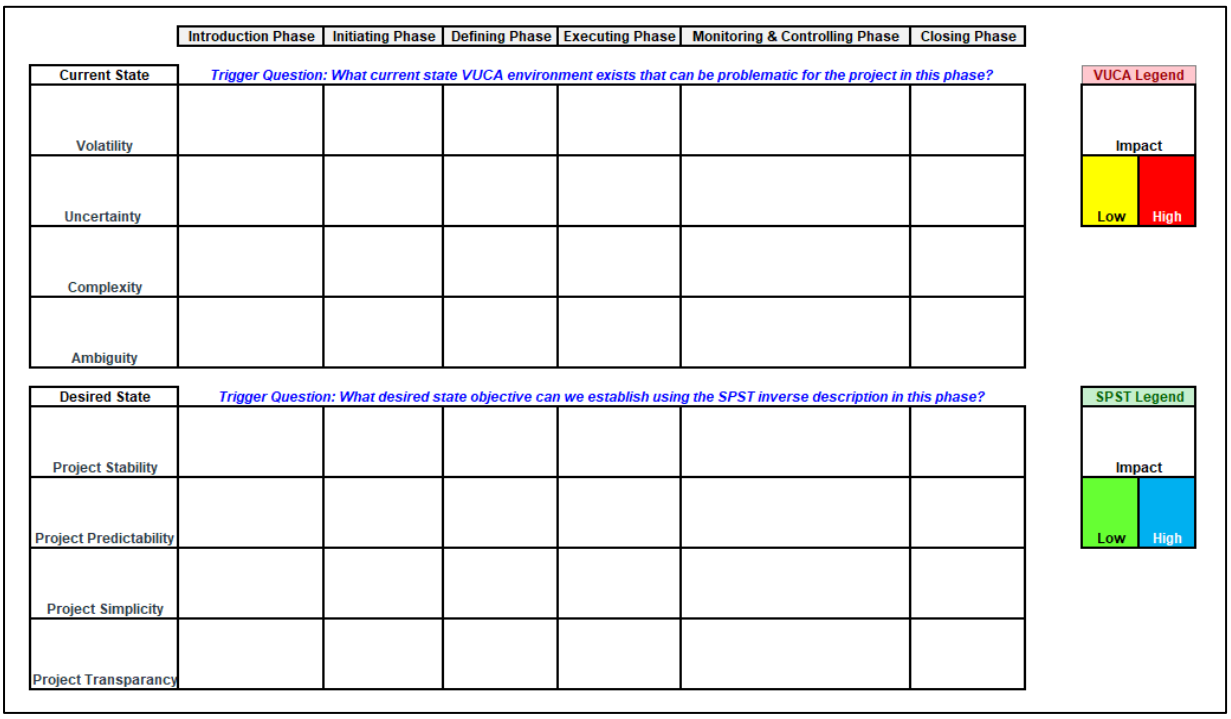
The SPST Analysis Chart is based on the six-project life-cycle phases identified in the Pracademic Project Management model. The horizontal axis focuses on the six following project phases:

- Introduction Phase
- Initiating Phase
- Defining Phase
- Executing Phase
- Monitoring & Controlling Phase
- Closing Phase

The vertical axis is broken into two sections. These are the VUCA Current State and the SPST Desired State objectives. Each section contains a series of "trigger questions" to prompt the user to ask the specific question against the pre-defined state. Users are prompted to fill in the blank cell associated with the state describing the area or type of information required.

Additionally, there are two "Impact" legends provided that allow you to add a visual dashboard containing a color "heat mapping" to describe the "Low" or "High" impact areas which could cause a program or project to fail. These are highlighted areas of great impact which can be seen in the SPST table in figure 3.0.

Figure 3.0: SPST Analysis Chart Template



The trigger questions for the current state are designed to create a partial gap analysis anticipatory examination of the impact of the VUCA elements on your current project. Each VUCA element can lead to a potential loss of project schedule, increase in project cost and challenges to the execution of the project objectives. The trigger questions for the desired state are designed to create clear mapping of the areas of opportunity in your project. These 4 objectives may also identify the ideal state situation for your project. There are 4 potential project organizational lenses that these can be viewed from depending on the functional project culture. These are a Waterfall, Agile, Strategic or Scrum perspective. If we take a fictitious Bio/Pharma project and establish a completed SPST analysis chart with impact rankings, it would look like the completed chart in figure 4.0.

Figure 4.0: Bio/Pharma New Product Development Project SPST Analysis Chart Template

	Introduction Phase	Initiating Phase	Defining Phase	Executing Phase	Monitoring & Controlling Phase	Closing Phase
Current State	*Trigger Question: What current state VUCA environment exists that can be problematic for the project in this phase?*					
Volatility	dependent of gov. funding which could be eliminated or delayed					Uncontrolled scope will be required to be adjusted at time
Uncertainty	Project proposal requires using the latest evolving technology with	Project charter has not identified the Project Manager				
Complexity	External people resources identified that must participate in the project		Scope statement and requirements are extremely	Key manufacturing equipment not available		Demonstration of key requirments V&V not
Ambiguity	Project proposal is extremely loose in technical requirments				No valid KPI's in place to understand what metrics should be evaluated	
Desired State	*Trigger Question: What desired state objective can we establish using the SPST inverse description in this phase?*					
Project Stability	Project team offsite schedueled for best practices review	Project Charter establishing concensus for team	All project stakeholders buy-off on scope			
Project Predictability	Project Team formed and members "Norming" early					
Project Simplicity				Processes revised to eliminate redundent		Requirments elimnated based on statistical
Project Transparency		Project charter identifies Project Manager and PM alternate			All project techical communications funneld thru an (ICWG) interface control working group	

VUCA Legend	
Impact	
Low	High

SPST Legend	
Impact	
Low	High

The completed SPST Analysis Chart above allows you to immediately identify the areas of concern in the current state section phase by phase illustrated in the Bio/Pharma project example. Additionally, you can clearly see the strategic opportunities that can be gained by establishing objectives based on the positive perspectives of project Stability, Predictability, Simplicity and Transparency.

This analysis should be reviewed at the end of each project phase and updated with new possible VUCA challenges and SPST Opportunities. In the completed example above, there is now a roadmap of strategic opportunities that can be embraced at every phased step of a project. Knowing what can be accomplished ahead of time, from a strategic planning perspective to minimize the negative impacts of VUCA, will optimize the success of a project's execution and delivery. A SPST analysis can be a useful strategic tool used for optimizing project management success. Now, let's explore the perception of Tactical Risks versus Strategic Risks.

Tactical Risk Oversight

The challenges of risk management for program and project leaders and managers is that realistically there are multiple levels of risk identification and analysis required. Too often we focus on strategic risk management at a higher leadership level and forget that there is a "Tactical" element of risk management that is required.

Many companies and businesses focus on Strategic Risk Management (SRM) that is broad and thematic based on the organizational goals and objectives. Unfortunately, a separate level of risk management is required at the functional day-to-day level on programs and projects. This Pracademic philosophy of "tactical" risk management is based on the three following characteristics:

- ***Different Flavors of Risk*** - even a small risk can have a tremendous impact on performance.
- ***VUCA (Volatility, Uncertainty, Complexity, Ambiguity) Risks*** – everything may have been fine yesterday, then suddenly we have a problem or issue today.
- ***Perception is Reality*** – accurately defining a risk is both an art and a skill.

Strategic Risk Management can be defined as "the process of identifying, assessing and managing the risk in the organization's business strategy - including taking swift action when a risk is actually realized." Strategic risk management is focused on those most consequential and significant risks to shareholders.

Project and Program Managers are realistically working at the functional or operational level which requires a tool and process like Tactical Risk Oversight. Tactical risk oversight and management requires a day-to-day review of what is happening at a team level or project performance level. The only way to capitalize on this philosophy is to break negative and positive risks apart and create a qualitative and quantitative working evaluation. This means risks must be separated into multiple charts to create the conceptual mapping required to describe them rather than the traditional risk matrix approach.

The concept of identification for a positive element is different than the thinking required to identify a negative tactical risk. As we stated earlier, risks come in different flavors, sizes and impacts to the project team. A "one size fits all" approach is naive and too simplistic based on general visual dashboards.

The "art" of tactical risk identification and strategies is to either embrace or eliminate them. This requires a systems thinking approach to explore the impact of the tactical risk to multiple stakeholders. You may easily resolve a risk for your project which can have tremendous negative impacts to other teams and stakeholders.

A staggered formula of descriptive interpretation from "almost certain to happen" versus "rarely to happen" allows us to create an impact response tailored to the situation. This tailored approach provides the opportunity to quantitatively describe both positive and negative risks with a simple addition-based formula. Many times we become so overwhelmed by negative risk events in a program or project that it is almost impossible to conceptualize the possibility of an opportunity. We are forced to respond to fire drill management responses that consume the daily activities of the people resources supporting our efforts.

Risks in these situations drive cost overruns and schedule delays that impact the efficiency and effectiveness of project activities. They also create a project battle rhythm focused only on looking at the negative aspects without putting on a "lens" for viewing the positive perspective and possible opportunities. The Tactical Risk Inventory, shown in figure 5.0, allows the user to identify, describe and quantify the impact of all of the risks available.

Figure 5.0: Tactical Risks Inventory Spreadsheet

Tactical Risk Inventory

PR #	Description	Owner	Sum Total	Strategy	Due Date
1					
2					
3					
4					
5					
6					

NR #	Description	Owner	Sum Total	Strategy	Due Date
1					
2					
3					
4					
5					
6					

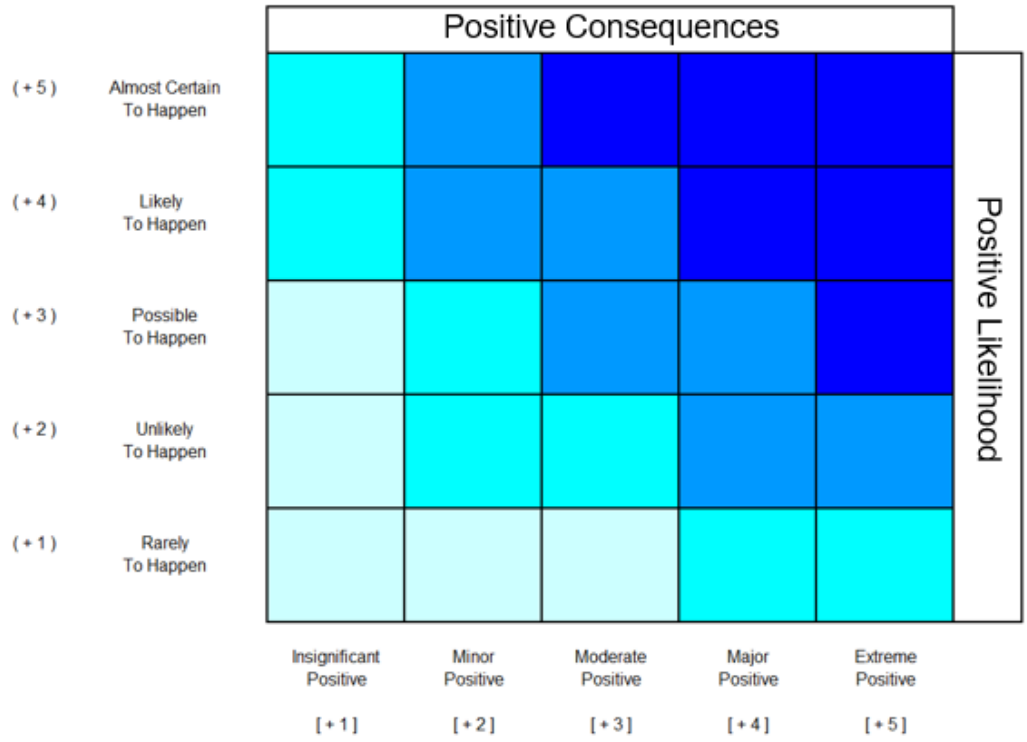
With this tool, you always start identifying the positive risks (***PR***) first. This is because the brain is automatically wired to solve problems. It will be easy to identify negative risks (***NR***) but

opportunity thinking (positive risks) requires a much more purposeful effort. Risk is always a value measure of "Uncertainty" (Saladis, Wais, 2013).

Many times you will be required to use opportunity based words and refer to positive images or metaphors to stimulate positive risk identification descriptions. You should clearly describe the risk opportunity in the language that the impacted team will understand. The "Owner" of the risk should be the person(s) who can actually make decisions about what direction to take for embracing the identified possibility.

You should involve all of the impacted project stakeholders to help clarify and rank the consequences and likelihood of the positive risk occurring. This is accomplished by mapping the cross intersection of the logical possibilities of the risk occurring based on the "Positive Consequences" and the "Positive Likelihood" as seen in figure 6.0.

Figure 6.0: Positive Tactical Risks

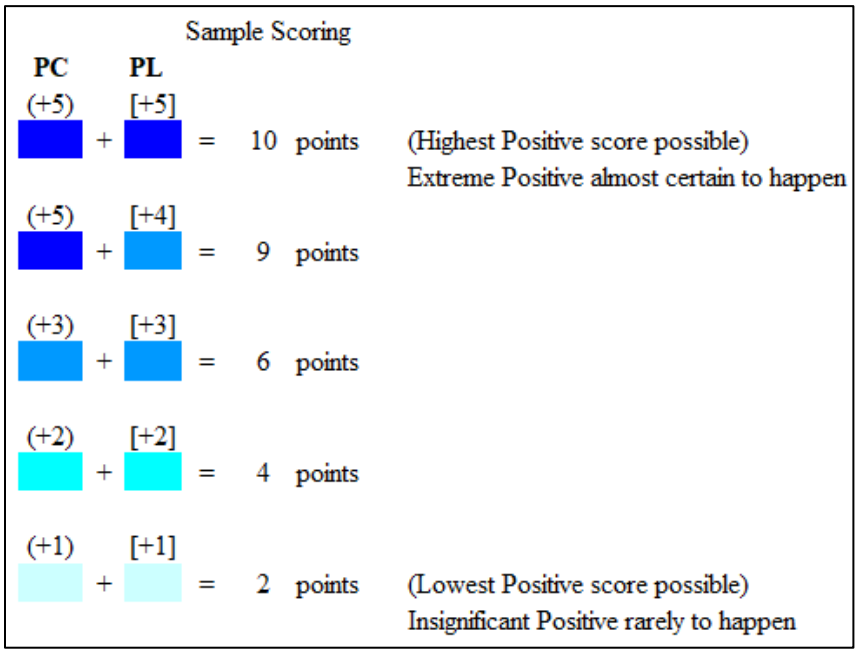


You will then create a tactical score using the rubric in figure 7.0. This will allow you to calculate the numerical rank for each positive risk. The additive formula is the "Positive Consequences"

(***PC***) cell plus the "Positive Likelihood" (***PL***) cell equaling the sum total. Place that number in the Tactical Risk Inventory cell for the sum total.

An example could be a risk that was identified as "Likely to Happen" (+4) and a "Moderate Positive" (+3) which would create a sum total score of +7 using the formula methodology seen in the rubric calculations in figure 7.0.

Figure 7.0: Positive Tactical Risk Scoring Rubric



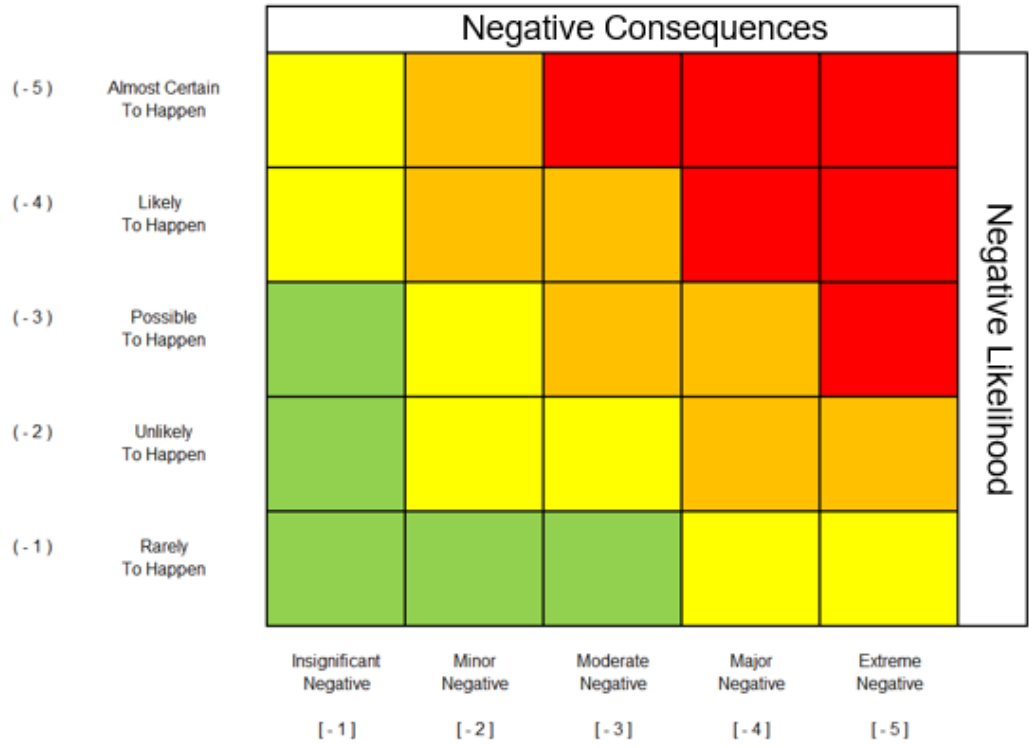
The five response strategies to explore the Positive Tactical risks are:

- ***Exploit*** – take actions to ensure the opportunity is realized
- ***Share*** – transfer ownership of an opportunity to a 3rd party to share the potential benefits
- ***Accept*** – accept the risk by taking no actions or, at most, setting aside contingencies to offset the adverse effect of the risk
- ***Enhance*** – increase the probability and/or impact of an opportunity
- ***Escalation*** – escalate a risk to higher levels of authority because it is outside of the original project scope, or if you are responding to the risk it will require additional authorizations

The project team and owner should now identify and document the "Strategy" required for each of the identified risks. To complete the spreadsheet, you will assign a "Due Date" to each risk which should reflect either the positive risk capture date or the calendar date that the risk opportunity will expire.

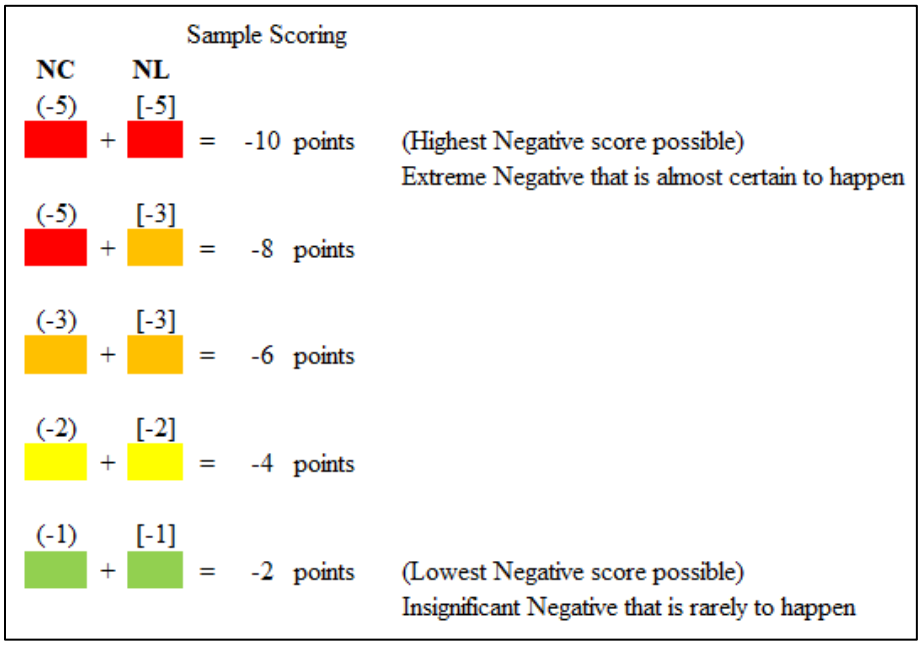
This process is then repeated for the Negative Tactical Risks identified on a project. Unlike positive risks, negative risks are typically easier to identify and describe. There is still a level of uncertainty associated with them but they typically influence one or more project objectives such as cost, quality and time if they occur. For the example below, we have filtered the impacts based on the negative consequences and the negative likelihood of them occurring as seen in figure 8.0.

Figure 8.0: Negative Tactical Risks



Similar to the risk philosophy we used with positive risks, we repeat the process with negative risks using the Negative Tactical Risk Scoring Rubric seen below in figure 9.0.

Figure 9.0: Negative Tactical Risk Scoring Rubric



The five response strategies to explore the Negative Tactical Risks are:

- ***Avoid*** – eliminate the project risk
- ***Transfer*** – transfer the risk to a 3rd party
- ***Mitigate*** – reduce the probability of impact of the risk
- ***Accept*** – accept the risk by taking no actions or, at most, setting aside contingencies to offset the adverse effect of the risk
- ***Escalate*** – escalate a risk to higher levels of authority because it is outside of the original project scope, or if you are responding to the risk it will require additional authorizations

Avoiding a negative risk is a critical strategic response for users where the project team tries to remove the threat or minimize the threat's impact to the project performance. There is a cognitive perspective of "Value" in all risk responses and their strategies.

Finally, after all the information and data is loaded into the inventory tool, you have a visual dashboard similar to figure 10.0 which quickly and easily highlights the positive and negative risks that must be addressed along with the scheduled date for the strategic handling of the others.

Figure 10.0: Completed Tactical Risks Inventory

Tactical Risk Inventory

	PR #	Description	Owner	Sum Total	Strategy	Due Date
	1	Contractor has determined a new more efficient drilling operation	Sam Edwards	(4)+(4)=**8**	Share	Nov. 15th
	2	Engineering data can be captured early for lessens learned	Robert Shoaf	(5)+(4)=**9**	Exploit	Sept. 30th
	3	Using new "Sprint" LEAN software allows team to be 20% more efficient	Diana Breazeale	(3)=(5)=**8**	Share	Nov. 1st
	4	Project team can obtain workers from another project at a lower rate	Roger Scott	(3)+(3)=**6**	Enhance	Oct. 1st
	5	Procurement of "Mega driver" part can be incentivized and deliver 30 days early	Luru Thi Cang	(5)+(5)=**10**	Escalation	Sept. 15th
	6	Team requests option to work a 4-day work week	Mike Hagen	(2)+(1)=**3**	Accept	Sept 1st

	NR #	Description	Owner	Sum Total	Strategy	Due Date
	1	Inadequate Power Supply Infrastructure for Manufacturing assembly facility	Albert Jennings	(-3)+(-4)=**-7**	Transfer	Oct. 15th
	2	Proposal team has pulled 2 key resources from your team for 30 days	Barry O'Donell	(-3)+(-3)=**-6**	Accept	Sept. 1st
	3	Big Data analysis data format issue with Vacuum Chamber Test anomaly	Leslie Hankinns	(-1)+(-2)=**-3**	Transfer	Nov. 1st
	4	Radioactive waste material requires proper disposal by Sept. 30th	Kaye Ennis	(-5)+(-5)=**-10**	Escalate	Sept. 1st
	5	Drawing release date for Integration Assembly drawing late	Jair Ayala	(-2)+(-2)=**-4**	Accept	Sept. 15th
	6	Quality buy-off of "Micro driver" failed inspection requires remanufacture	Gary Bradford	(-5)+(-5)=**-10**	Mitigate	Sept. 1st

As an additional activity, the risk "colors" from the recorded cells have been added to the left margin to provide an additional visual dashboard for clarity. The completed Tactical Risk Inventory provides users with the capacity to strategically lead, manage and address project risks to ultimately help move your organization forward in a positive direction. The final pracademic perspective, required to fully explore a tactical mindset, is the philosophy of Problems, Issues and Concerns.

Problems, Issues & Concerns

Most individuals and organizations do not understand the difference between a ***Problem***, an ***Issue*** or a ***Concern***. They tend to lump them together and use them as reasons for inactivity and a lack of clear decision making. The modern organization typically has poor accountability for problems, issues or concerns. These are seldom tracked in a program plan or a project schedule, unless they have been flagged on a project risk register or carried in a risk matrix.

What is frustrating is that each of these terms has its own meaning and requires a separate plan to help move your organization forward in a positive direction. The Pracademic philosophy, we have identified previously, allows the exploration of each of these elements at its own level of impact. To provide clarity, let's explore some operational definitions which can assist in the way we think about each element:

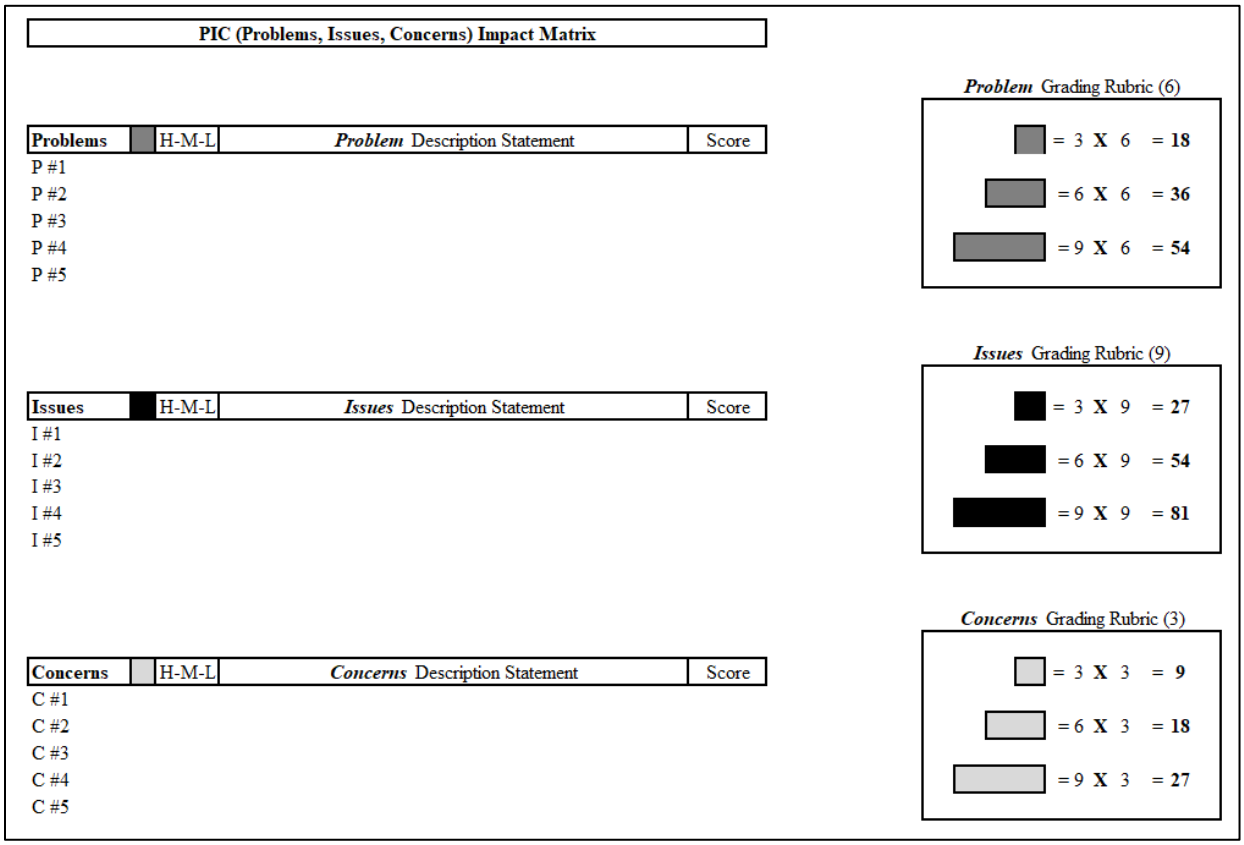
- ***Problem*** – A problem is a harmful or unwanted situation that must be dealt with to overcome a situation. Usually, there is a clear solution or the start of a solution that may

require additional thinking to resolve it. We are a society of problem solvers so we are familiar with problem solving and decision making based on problems. There are multiple strategies that can be utilized to resolve problems. There are also more than a dozen types of published documented problem categories.

- ***Issue*** – An issue is a complex problem that requires intervention to clarify "who" is responsible for its resolution (accountable) and "What" the elements of the complex problems are. It is a topic requiring discussions and debate to fully understand it. Ignoring it does not make it go away and dismissing it will create an environment where it will resurface later with additional negative elements and severe impacts. An issue can occur when we have a "double-bind" situation where there is no clear resolution and either solution is wrong. It is a situation in which a person is confronted with two irreconcilable demands or a choice between two undesirable courses of action.
- ***Concern*** – A concern is an intuitive feeling that something is not right and that it will come to fruition in a negative way. Concerns are usually based on a hunch and there may be no tangible proof to substantiate or validate the feeling that it could occur. At other times, there may be small indications that something is "not right" but there are no clear negative impacts.

To assist you in distinguishing the difference between a problem, issue or concern, you should first try to understand which situation you are dealing with. There may be complex problems that have nested issues and, there may be multiple problems inside an issue. The use of the "**PIC"** (Problem, Issue, Concern) clarification tool and illustrative heat map dashboard will allow you to visually see your areas of concern. The PIC toolset is broken into three different sections based on the type of quandary you want to address as seen in figure 11.0.

Figure 11.0: PIC Template



There are different quantitative assigned weights for each of the three sections based on the negative impact of each predicament. The PIC Impact Matrix becomes a repository of working project obstacles that need to be resolved or reviewed to increase project and program performance effectiveness and efficiency.

Each of the three sections has a simple mathematical formula to determine if they are high, medium or low in negative impact. Upon completion of the matrix, you can quickly see which of the elements have the highest summative numbering, ultimately alerting you to address them if required.

Additionally, the PIC process is to define the separate elements in a descriptive statement. To develop this statement, everyone on the team, including internal and external stakeholders, should agree that the statement fully describes the situation. The starting point is the "Problem" area of the matrix. This is because every day we deal with problems. They are part of our cognitive

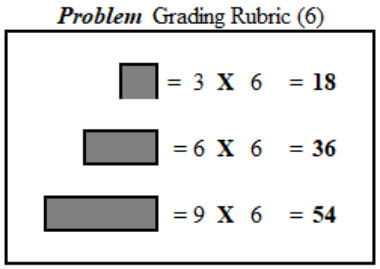
processing and almost everyone knows how to solve a problem once it has been identified. Below you can see a fully defined "Problem" series of description statements:

Figure 12.0: PIC Problems Impact Matrix

Problems	3	6	9	H-M-L	*Problem* Description Statement	Score
P #1	■			L	Test engineer does not show up for work and calls in sick in the middle of vibrations testing - expected back tomorrow	18
P #2	■	■	■	H	Project Hardware fails Qual test and requires a redesign causing 30 day schedule delay and $250K overrun to budget	54
P #3	■	■		M	Customer has asked for a "stand-down" to team activities for a safety audit	36
P #4	■	■		M	Project Milestone Delivery is unachievable with current resources and customer refuses a re-baseline to a cost-plus contract	36
P #5	■	■	■	H	Latest Earned Value projections on your project are showing a SPI of 0.6 (behind schedule) and a CPI of 0.5 (overrun)	54

In the image above, we have identified 5 separate "Problems" which are impacting a project or a program. After completion of the description statement, each "Problem" is ranked either high, medium or low based on the negative impact it could provide. The grading rubric for the problems identified is shown in figure 13.0.

Figure 13.0: Problems Grading Rubric



The default value of any problem is 6 on a 10 point scale. You then apply the multiplication of the second calculation value measured as a high, medium or low impact scoring and achieve a total scoring summation. In the example above, "P #2" and "P #5" are the highest impact "Problem" described with a total score of 54. All problems will need to be resolved but you can now easily see the first two which should be prioritized. This will prevent the completion of the easy problems

first by ignoring or addressing the hard problems to resolve. You will also notice that the PIC Template has no color indications. This is purposely done to show only "grey" tone highlights.

- (P) ***Problems*** = Grey color indication
- (I) ***Issues*** = Dark Black color indication
- (C) ***Concerns*** = Light Grey color indication

This is a visual representation of the elements based on the philosophy that the "darker" the element, typically the more important it is to resolve for project and program success.

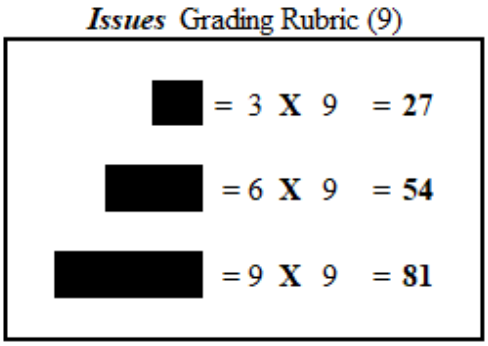
Next, the recommended process is to identify the "Issues" on the project or program utilizing the next section of the PIC Template as seen in figure 14.0.

Figure 14.0: PIC Issues Impact Matrix

Issues	27	54	81	H-M-L	***Issues*** Description Statement	Score
I #1	■			L	Information Technology rolls out a new upgrade to the Engineering DMS which causes all SOP's to be not retrievable for MFG, Eng. and Quality organizations	27
I #2		■		M	Facility Liquid Nitrogen tank runs out during vacuum testing of hardware causing test shutdown and test failure	54
I #3			■	H	Southern California wildfire cause power outage shutdown for for 3 days before power is available again for teams to work	81
I #4		■		M	Organizational and Corporate culture continue to ignore customer requests for external SME consultants to be added to your team causing extreme communication issues	54
I #5	■			L	Customer has requested you to "Fast Track" a project to deliver 30 days early	27

In figure 14.0, we have identified 5 separate "Issues" which are severely impacting a project or a program. After completion of the description statement, each issue is ranked either high, medium or low based on the negative impact it could provide. The grading rubric for the problems identified is shown in figure 15.0.

Figure 15.0: Issues Grading Rubric



The default value of an "Issue" is 9 on a 10 point scale. You then apply the multiplication of the high, medium or low impact scoring and achieve a total scoring summation. In the example above, "P #1" and "P #5" are the highest impact problems described. All "Issues" will need to be resolved, but you can now easily see the first two which should be prioritized. Issues may require additional authority or resource accountability to help resolve. Issues are typically areas where additional executive or leadership help is required. You may also find that you need to create a list of "Ownership" for each issue identified.

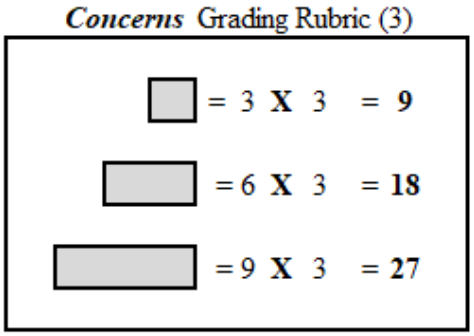
Next, the recommended process is to identify the "Concerns" on the project or program utilizing the next section of the PIC Template as seen in figure 16.0.

Figure 16.0: PIC Concerns Impact Matrix

Concerns	9	18	27	H-M-L	*Concerns* Description Statement	Score
C #1				M	New Project Manager does not have the experience required to lead the team effort	18
C #2				L	Vague technical requirements by the customer have cause scope creep and additional required work	9
C #3				H	No established or defined schedule or published plan established for the critical path activities	27
C #4				M	Funding overruns have exceeded the approved project budget and no project or management reserve has been authorized	18
C #5				L	Weather forecasts for the next 2 weeks shows multiple storm activities which could cause an inability to do external (outside) required project activities	9

In the image above, we have identified 5 separate "Concerns" which may potentially impact a project or a program. After completion of the description statement, each concern is ranked either high, medium or low based on the negative impact it could provide. The grading rubric for the concerns identified is shown below in figure 17.0.

Figure 17.0: Concerns Grading Rubric



The default value of a "Concern" is 3 on a 10 point scale. You then apply the multiplication of the high, medium or low impact scoring and achieve a total scoring summation. In the example above, "P #3" is the highest impact concern described with a score of 27. All concerns will need to be tracked, but they may not need to be resolved. Concerns are intuitive "hunches" that may be based on instinct and have no factual evidence to prove they may come to fruition.

Each of the three different sections of the PIC Template provide specific insights which can be valuable for helping to prioritize the current activities of project resources. Action plans can be developed to specifically address each element and a specific "owner" can be assigned to help resolve or champion the elimination of a specific problem, issue or concern.

Conclusion

As we described in the beginning of this paper, the Infinity Mirror is a metaphoric model for us to conceptualize a Project or Program's tactical risks. Repeating images that seem to go into infinity, just like the risks encountered on a project, based on VUCA events and situations require a new set of project and program management thinking strategies. The Inverse SPST model helps to offset the negative impacts, but the new thinking must include the ability to create a positive risk registry.

By both qualitative and quantitative interpretation of risks, you can purposely focus on capturing positive opportunities. Additionally, you can minimize the fire drill management approaches to

the overwhelming negative risks and execute a numerically ranked approach to negative risks based on their likelihood and consequences.

Finally, the ability to identify project and program problems, issues and concerns is critical for establishing the battle rhythm associated with leaning into the resolution. Additionally, it allows you to put action plans for problem solving in place using the PIC impact matrixes. These matrixes allow you to separate the "high" problems from the "medium" and "low" problems in order to increase your effectiveness and efficiency. Project and Program issues are identified in the same manner and a numerical ranking highlights what to focus on immediately. The ability to actually describe what concerns the team members and stakeholders have is paramount to anticipating what could go wrong and what might go right under the right circumstances.

All of the tools described in this paper are designed to create additional "value" and helps to clarify the collaborative discussion on tactical risks. The pracademic philosophy we have suggested puts a strong level of practical application and interpretation of data and information based on theory and known inverse solutions to VUVA impacts. Project and Program managers are constantly challenged to be more effective and efficient with their resources.

Modern organizations experience VUCA constantly. To help resolve these and you need to focus on both strategic and tactical risks by exploring new thinking mindsets. With the use of these tools and philosophies described, you can continue to move your organizations forward in a positive direction.

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List of Figures:

About the Author

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Dr. Dale S. Deardorff worked for Boeing Integrated Defense Systems and Space Propulsion Development divisions as a Project and Program manager for over 20 years. He worked for the Lockheed Burbank "Skunk" works and Aircraft division for almost 10 years and a high technology Valencia California start up for a couple of years. This 30 plus years' experience is a "Pracademic" blending of commercial, military, government, NASA and high technology organizations. Dale has taught Project Management "on-line" for multiple universities as an adjunct instructor since 2003 and continues to contribute to project management methodologies and philosophies as a current thought leader.

He created the Rocky Peak Leadership Center in 2010 and has helped modern organizations as an enterprise and executive consultant in the areas of thinking methodologies, Innovation and leadership training and facilitation. Dr. Deardorff volunteers with youth leadership programs and supports local youth training in the areas of personal mastery and effective collaboration techniques.

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