

Team Software Process (TSP) Coach Mentoring Program Guidebook

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1 Introduction

This guidebook is designed to explain the steps for becoming an SEI-Certified Team Software Process (TSP) Coach or SEI-Certified TSP Mentor Coach, with emphasis on guiding individuals through the mentoring process. This guidebook defines the structure and format of the mentor and provisional coach relationship, and explains the process steps and evaluation criteria for becoming an SEI-Certified TSP Coach or Mentor Coach. It is recommended that all mentors (SEI-Certified TSP Mentor Coaches) and provisional TSP coaches (SEI-Certified TSP Coach candidates) read all sections of the guidebook at least once, and then refer to the guidebook whenever necessary.

1.1 Audience

This document is intended for

- individuals interested in becoming SEI-Certified TSP Coaches
- individuals interested in becoming SEI-Certified TSP Mentor Coaches
- SEI-Authorized Personal Software Process (PSP) Instructors
- change agents responsible for transitioning and sustaining TSP in their organizations
- individuals responsible for administering the SEI-Certified TSP Coach and SEI-Certified Mentor Coach program in their organizations

1.2 Why Mentoring?

The SEI has begun transitioning the TSP technology from early adopters to the early majority by "crossing the chasm," which Regis McKenna explains as "the gulf between two distinct market-places for technology products—the first, an early market dominated by early adopters and insiders who are quick to appreciate the nature and benefits of the new development, and the second a mainstream market representing 'the rest of us,' people who want the benefits of new technology but who do not want to 'experience' it in all its gory details" [Moore 2002]. To help facilitate this transition, the SEI has begun modifying the TSP product suite in order to meet the market's growing need for qualified TSP coaches. Prior to the creation of the SEI-Certified TSP Coach and SEI-Certified TSP Mentor Coach certification tracks, the SEI conferred coach status to individuals using the SEI-Authorized TSP Coach process. While the SEI-Authorized TSP Coach program met the needs of TSP's early adopters, some of the authorization requirements created barriers to the early majority. These barriers included some of the following factors:

- Candidate coaches often did not follow through with authorization, resulting in unqualified users attempting to implement the TSP.
- The qualification process placed too much emphasis on the mechanics of the team launch
 and not enough emphasis on conducting weekly team meetings, assisting the team leader
 with management, doing cycle and project postmortems, and developing repeatable core
 skills.

- Lack of continuing engagements with other experienced TSP practitioners created the potential for insufficient/inconsistent coach development after authorization.
- TSP coach training was available only through the SEI.
- SEI authorization formerly required candidates for coach authorization to conduct a launch or relaunch while being observed by an authorized member of the SEI TSP Initiative Team.
- All training was conducted in English only, and observations were limited to Englishspeaking coaches and teams.

The SEI-Certified TSP Coach and SEI-Certified TSP Mentor Coach programs are designed to eliminate the need for observation by SEI personnel (and the associated costs) by enabling the transfer of knowledge from experienced TSP coaches to new TSP coaches through mentoring, while still maintaining the high standard of quality that organizations, teams, and individuals have come to expect from TSP coaches.

The SEI-Certified TSP Coach and SEI-Certified TSP Mentor Coach programs also enable the expansion of TSP implementation to non-English-speaking teams and organizations. This program also eliminates the bottleneck created by the requirement for SEI observations, and the expanded capacity for qualifying candidate coaches will better enable the available supply of qualified TSP coaches to keep pace with market demand. In addition to overcoming the transition barriers, the new qualification footprint for the TSP coach provides a revised set of standards, processes, and procedures for producing highly qualified TSP coaches. The qualification activities also give candidates a chance to gain real-world experience as they proceed through the steps needed to become SEI-Certified TSP Coaches.

1.3 Mentor and Mentee

1.3.1 What is a Mentor?

In Greek mythology, Mentor was the wise old family friend to whom Odysseus entrusted his son's education and development and the oversight of his lands while Odysseus was away in the Trojan War. Mentor's wisdom, experience, and protective guidance are now embodied in the name of the centuries-old practice of pairing newcomers to a discipline with a more experienced person who will help the learners master the needed skills and knowledge in that domain. Mentoring is effectively used in many organizations not only as a way of developing knowledge, but also of imparting the values, beliefs, and practices that compose the organizational culture [U. S Navy 2009].

Further definition is provided by the People Capability Maturity Model (PCMM): "The purpose of mentoring is to transfer the lessons of greater experience in a workforce competency to improve the capability of other individuals or workgroups" [Curtis 2002].

1.3.2 What is a Mentee?

A mentee is, very simply, a person who is being mentored. In the SEI-Certified TSP Coach program, the candidate ("provisional") coach is the mentee who learns from the more experienced mentor coach. The provisional coach must be committed to learning and taking responsibility for

his or her own personal development. This commitment must include a willingness to make ongoing and accurate assessments of current skills and competencies, participating in the development and execution of a mentoring action plan, and working with a mentor to achieve the agreed-upon goals.

The U.S. Department of Transportation, Departmental Office of Human Resource Management [DoT 2009] describes the roles of a mentee as follows:

- The mentee must act as his or her own gauge for measuring how interactive the mentoring relationship will be. It is up to the mentee to determine the amount of dependence and guidance that he or she requires. The mentee must take the initiative to ask for help or advice, and to take on more challenging work as the relationship progresses.
- The mentee is a student who needs to grasp the mentor's knowledge and have the ambition to know what to do with the knowledge. The mentee must practice and demonstrate what he or she has learned.
- The mentee is a trainee who should blend mentoring with other approaches to learning. The mentee should seek out other opportunities to grow and learn from people other than the mentor, and not be overly dependent on the mentor's professional advice. Opportunities such as conferences or continuing education courses related to the professional domain can provide mentees with additional perspectives from which to learn about the profession and its practices.

1.4 TSP Coach and Mentor Coach Qualification Overview

Figure 1 outlines the SEI-Certified TSP Coach and SEI-Certified TSP Mentor Coach qualification tracks. The process begins with successful completion of the PSP course from the SEI, an SEI-Authorized PSP instructor, or an accredited university, and obtaining the SEI-Certified Personal Software Process (PSP) Developer certification (http://www.sei.cmu.edu/certification/psp.html) as proof of mastery of the knowledge and skills required to deliver quality software within a predictable schedule and budget. Next, the SEI-Certified PSP Developer must complete the TSP Coach Training course (http://www.sei.cmu.edu/products/courses/tsp-launch.html). At this point, the individual becomes a provisional TSP coach and enters into the mentoring process. The provisional coach has up to 18 months to complete the mentoring process and pass the certification exam, at which point the provisional coach becomes an SEI-Certified TSP Coach.

In order for an individual to become an SEI-Certified TSP Mentor Coach, a candidate must possess SEI-Certified TSP Coach status and must complete the PSP Instructor Training course. (NOTE: This course can be taken at any time before or after completion of the TSP Coach Training course.) The SEI-Certified TSP Coach must also meet all other TSP Mentor Coach Training entry requirements, as outlined in subsequent sections of this guidebook. Upon completion of all requirements, the prospective TSP Mentor Coach should submit an application for admittance into the TSP Mentor Coach Training course and provide all required supporting data. Upon successful completion of the TSP Mentor Coach Training course, the applicant will become an SEI-Certified TSP Mentor Coach.

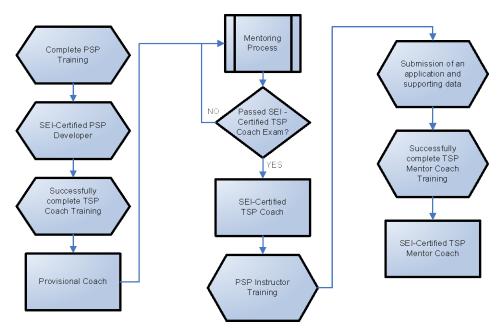


Figure 1: TSP Coach and Mentor Coach Qualification Overview

1.5 Similarities and Differences between Coaching and Mentoring

Coaching and mentoring are not the same. However, these terms often are used interchangeably, partly due to the fact that coaches and mentors often perform similar roles using similar skills and techniques. Because the TSP Coach Mentor process is designed to create better coaches, it is important to clearly delineate the similarities and differences between these two roles.

A coach is a person who instructs individuals in the knowledge and skills needed to gain proficiency in a specific domain. Coaches help individuals to achieve extraordinary results by helping them to focus on mastery of specific processes and procedures and encouraging them to set and achieve goals by enacting a series of action steps that produce the desired results quickly and easily. Coaching helps to sustain progress towards the desired goals by helping people to learn from setbacks, turn problems into opportunities, and achieve positive results even in difficult circumstances. Coaches have a set agenda to reinforce, and seek to change the skills and behaviors of others to fit that agenda. Coaches work with individuals or teams to achieve finite objectives in a defined timeframe. Studies show that when a professional coach is hired to work with individuals or teams, specific goals and measurable outcomes can be achieved in a shorter period of time than could have been done without the coach's guidance. In other words, "While all of the steps of teambuilding, training, goal setting and feedback are needed to produce a high-performing team, they are not sufficient. The final key ingredient is leadership and coaching" [Humphrey 2006].

As with a coach, a mentor is an experienced person who helps less experienced people to gain proficiency in a particular domain. However, in addition to providing instruction, the mentor also acts as a trusted counselor, role model, and guide to the less experienced person or a newcomer who is the mentee. Mentoring involves a two-way, mutually beneficial learning situation in which the mentor provides advice, shares knowledge and experiences, and teaches using a low-pressure approach that enables the mentee to discover his or her own particular strengths and areas for im-

provement. The mentor's role is to help shape and guide an individual's development in both a professional capacity and in general life skills. Good communication and coaching skills are vital in the role of the mentor.

It should be easy to see that the coach and mentor roles share many similarities. The roles of both mentors and coaches are filled by individuals with a great deal of experience in and knowledge about the domain in which they are working, and who have the job of helping less experienced individuals to improve their knowledge and performance in that domain. Both roles require the coach or mentor to act as role model and guide to the individual being coached or mentored and both help their less-experienced charges to view setbacks as lessons that will help them to learn from their own mistakes.

There are also many important differences that delineate the coach and mentor roles as separate functions. Coaches often receive some sort of formal training in the skills required for effective coaching; mentors do not generally have formal mentor training, but usually possess the same skills and abilities as coaches, both in domain-specific skills and knowledge and in the communication and instructional skills needed for effective mentor-mentee relationships. The goals and outcomes for coaches and mentors also differ: coaching relationships usually have set goals and measurable outcomes, which, when met, result either in the termination of the relationship or the renegotiation of new goals and outcomes. Mentoring relationships do not always have clearly stated learning goals or measurable outcomes, and tend to endure over time, even after the mentee has gained sufficient skills to independently perform proficiently in the domain. Coaches can work with either individuals or teams, whereas mentors work one-on-one with a single mentee. Coaches have more of an authoritative role, and provide direct instruction in which learning flows in one direction only, from coach to learner. Mentors act more as facilitators or guides than teachers, and instruction is often done through counseling or discovery activities from which both the mentor and the mentee may learn. The major similarities and differences between coaches and mentors are summarized in the following table:

Coaches	Mentors
Coaches work with teams or individuals.	Mentors work with individuals only.
Coaches help teams and individuals to improve performance.	Mentors help individuals to improve performance.
Coaches aid learners to achieve specific objectives or performance levels.	Mentors guide learners according to changing needs; there is no set learning agenda or specified performance objective.
Involvement comes as part of the job for which he/she was hired.	Involvement comes through self-selection by both mentor and mentee.
Authority is inherent in the position.	Authority comes from the mentee's perceived value of the mentor's influence.
Relationships have a finite time span based on learning achievement or contractual specifications.	Relationships have no set time frame and may persist even after the mentee achieves proficiency.
The relationship with the learner is primarily authoritative.	The relationship with the mentee is collaborative.
Instruction is one-way; coaches transfer knowledge to teams and individuals	Instruction can be two-way; mentors may learn from mentees while providing the mentee with skills, knowledge, and guidance.
Instruction is usually limited to domain-specific skills and knowledge.	Instruction is often applicable to general life skills, not just a specific domain.
Coaches usually receive formal training in coaching skills.	Mentors do not usually receive formal training in mentoring or coaching skills.
Coaches may sometimes act as mentors.	Mentors usually act as coaches.

2 Mentoring Concepts

Mentoring is a process by which an experienced person provides advice, support, and training to a less experienced person to enhance personal and professional growth to both parties in the relationship. This section describes many of the concepts relevant to creating an effective mentorship.

2.1 What is Mentoring?

2.1.1 The Mentoring Process

The mentoring process is a developmental process in which a more experienced individual commits to working and learning together with a less experienced individual, for the purpose of the professional development of both individuals [CIO 2002]. The mentoring process includes a series of stages (described below in Section 2.2), in which the mentor's leadership in the process is adapted to support the developing strengths and meet the changing needs of the mentee. The result of an effective mentoring process is a self-confident and competent professional who has become prepared to mentor others.

2.1.2 Mentoring Relationships

A successful relationship between a mentor and mentee is characterized by confidentiality, trust, caring, mutual support, and challenges for growth. The mentoring relationship creates the necessary context of safety and confidence for the mentor and mentee to take the risks of trying new work strategies and learning from each other. This context is necessary for encouraging the professional growth of both individuals.

2.1.3 Mentoring Objectives

Mentoring can achieve many objectives. In addition to providing the mentee with opportunities for success and further growth, mentoring is also a means for accomplishing the following:

- Achieve scalability of a profession in a global environment. In many professions, the need for qualified practitioners is growing so rapidly that the capacity of academic institutions or training programs is unable to meet the demand for internships or practicum that enable learners to gain needed experience. Mentoring provides a cost-effective way to facilitate the transfer of practical skills and knowledge from experienced professionals to new professionals, maintaining the high standard of quality needed for proficiency in a discipline. In the case of TSP, having qualified mentors within an organization allows the organization to train and assess coaches without the need for costly travel by candidate coaches or external observers. Mentorships also allow training and observations to be conducted outside the United States and in languages other than English.
- Strengthen the culture of a profession. Mentoring allows less experienced individuals to
 develop relationships with other professionals who can provide advice on personal and career goals, introduce them to other practitioners in the professional community, and provide
 positive examples of ethical and masterful professional behavior. In turn, mentees can pro-

vide their mentors with fresh perspectives and new ways of approaching established problems in the profession.

• Plan for individual transition (prepare professionals for greater responsibilities). Mentoring provides a mechanism for new practitioners to transfer the knowledge and skills learned in the classroom into real-world practice under the tutelage of an experienced professional. Mentorships allow new practitioners to set and achieve goals that build on what they already know but cannot yet achieve alone, gradually increasing their proficiency in practice until they are able to capably perform all required functions without guidance or supervision.

2.1.4 Types of Mentoring

Although there are numerous types of mentoring, the SEI-Certified TSP Coach and SEI-Certified TSP Mentor Coach qualification tracks follow the formal/planned mentoring approach, which is described by the U.S. Department of Transportation Departmental Office of Human Resource Management as follows:

Formal or planned mentoring focuses on enabling the mentee to develop skills based on the needs of the profession, usually resulting in benefits to both the profession and the mentee. This type of mentoring promotes a "formal" approach to the relationship, with little social interaction between mentor and mentee; the mentor and mentee rarely (if ever) see each other outside the office. The mentor and mentee are more interested in meeting the needs of the profession than in developing a friendship; the basis for their relationship is professional commitment. Planned mentoring follows a pre-defined track that ends when the professional goals are reached. This type of mentoring takes a systematic approach to ensure that the mentee develops the skill set needed to benefit the profession.

2.2 Stages in a Mentoring Relationship

Numerous models of mentorship describe the process as having four distinct stages through which the mentor—mentee relationship evolves based on the knowledge level of the mentee. The sequence of stages (depicted in Figure 2) is generally a forward progression as in a pure waterfall model, but as with software, sometimes a stage must be revisited before moving forward again.

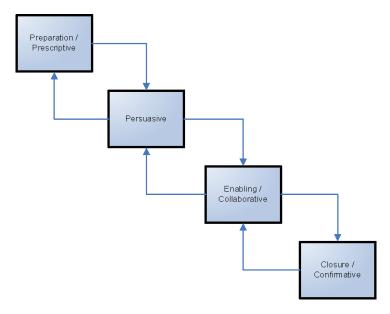


Figure 2: Mentoring Relationship Stages

2.2.1 Preparation/Prescriptive

The initial stage of the mentor—mentee relationship establishes the foundation upon which all progress will be measured and sets the ground rules under which the relationship will operate. During this phase, the mentor and mentee engage in discussion(s) to establish a sense of common purpose and develop a mutual understanding of the guidance to be provided and expected outcomes of the process. In this stage, the mentee generally has little or no experience in the organization or the domain, so the mentor must assume a more proactive role in guiding, directing, and advising the mentee. This stage is generally the most demanding on the mentor, as a tremendous amount of information must be shared by the mentor, and the mentee's ability to function successfully depends on much active guidance and in-depth advice from the mentor.

2.2.2 Persuasive

This second stage requires the mentor to take a strong approach in persuading the mentee to begin taking risks and acting more autonomously, with less direction and motivation from the mentor. The mentor must actively persuade the mentee to seek challenges and find answers. The mentee has begun to gain some experience in the organization or domain, but needs active direction from the mentor to be completely successful. The mentor may begin to help the mentee to develop and grow by suggesting new strategies, raising challenging questions, and pushing the mentee into making new discoveries.

2.2.3 Enabling/Collaborative

During the enabling/collaborative stage, the mentor allows the mentee to have successes and failures, while guarding the mentee from total failure. The mentor persuades the mentee to consider problems and discuss solutions openly and without fear of embarrassment. The mentor uses feedback as the primary mechanism for communication.

During this stage, the mentor should purposely move the relationship from mentor-oriented to mentee-oriented. The mentor becomes a sounding board for questions and advice rather than the source of all information, and begins to use probing, evaluative questions to study the mentee's grasp of the skills and concepts being mastered. At some point during this stage, the mentor will become satisfied that the mentee has crossed the acceptable threshold for competent and autonomous performance in the domain or organization.

2.2.4 Closure/Confirmative

The final stage of the mentor–mentee relationship commences when the mentee successfully meets the criteria needed for successful autonomous performance of a particular job function. The mentee is able to work independently of the mentor. Communications at this stage take place on a more equal level, often with the mentor and mentee working to solve problems together. As the mentee begins to function at a higher level of understanding in the domain or organization, the mentor gradually withdraws support and will eventually, by mutual consent, exit altogether.

2.3 The Mentor and Mentee Roles

2.3.1 Mentors

Mentors facilitate personal, educational, and professional growth in another individual by sharing the knowledge and insights that they have gathered through years of experience. Successful mentors are characterized as supportive, patient, and respected, among other positive personality traits.

Mentors have several responsibilities, including the following:

- Help the mentee to develop an appropriate learning plan/mentoring agreement, including goals that build on what the mentee knows and can do already, but cannot yet achieve alone.
- Provide guidance based on the mentee's learning and development needs.
- Help the mentee to access appropriate expert advice to extend knowledge and skills.
- Create a learning environment that supports risk-taking and innovation, and encourage the mentee to expand his or her abilities.
- Listen actively, be accommodating, and use silence as a tool.
- Provide feedback as necessary; relate guidance from past experiences.

Mentor attributes and roles that may be required include:

- **Teacher** share knowledge and experience in the mentored domain.
- **Problem solver** refer the mentee to resources and options.
- **Motivator** utilize encouragement, support, and positive feedback when a mentee is facing a challenge.
- **Coach** help the mentee to overcome performance difficulties through positive feedback and constructive feedback.
- **Guide** help the mentee to set realistic goals.

2.3.2 Mentees

A mentee is an individual who is protected or trained, or whose career is furthered, by a person of experience, prominence, or influence. A mentee is a professional who needs to learn from the mentor and to practice and demonstrate what has been learned. A mentee is also a "trainee" who should blend mentoring with other training approaches.

Mentees have several responsibilities:

- Take learning opportunities seriously.
- Prepare and complete each assignment according to the action plan that was negotiated with the mentor.
- Express needs clearly.
- Help to identify development goals.
- Seek input from the mentor.
- Demonstrate commitment through action.
- Maintain confidentiality.
- Maintain a positive attitude.
- Keep an open mind when receiving feedback, whether positive or negative.

2.4 Obstacles to Successful Mentorships

Mentor—mentee relationships are like any other situations that involve interpersonal interactions. The following list outlines some of the more common problems that are specific to a mentorship arrangement:

- Differences in learning/mentoring styles. A mentoring style may not meet the mentee's learning needs or feel comfortable to the mentor. After evaluating the mentee to determine the required amount of guidance, the mentor can determine the mentoring style that is most appropriate. Both the mentor and the mentee need to be flexible in adjusting the amount and direction of "give-and-take" in their interactions. As the relationship evolves and the mentee's skill level and confidence grow, the mentor may need to adjust mentoring techniques to stay synchronized with the mentee's development. Typically, as the mentorship evolves and moves toward conclusion, the mentor tends to give less advice and accepts more input from the mentee, until the mentee is capable of fully autonomous performance.
- Required time for mentoring activities. Schedule commitments may prevent a mentor from spending sufficient or high-quality time with a mentee. If a mentor starts to sacrifice mentorship time because of other commitments, the mentee may lose faith in the mentor, and the mentoring relationship will suffer. The same is true if the situation is reversed, with the mentee failing to devote adequate time for interacting with and learning from the mentor.
- **Inappropriate mentee expectations**. A common problem with mentors is that they may expect too much progress from the mentee in an unrealistically short time. Mentors must allow their mentees to have sufficient time to grow professionally and to make mistakes along

the way. Because of their greater knowledge and experience, mentors may have difficulty reining in their impatience with a mentee from whom they are expecting too much, too soon. Some mentees may expect too much from their mentors, such as demanding more time than is realistic. Or mentees may ask for more attention than they actually need.

• Control. A mentor should try to avoid the two extremes that may arise in this type of relationship—either exerting too much control over the learning situation and smothering the mentee's attempts to act alone, or paying so little attention to the mentee that it amounts to neglect and leaves the mentee open to failure. Both parties should understand that this relationship requires a firm time commitment and, if this commitment is not honored, the relationship will not meet its goals. Time constraints on both sides should be acknowledged and then managed effectively.

Other obstacles encountered in mentoring efforts include

- attempts by either party to control the relationship (instead of cooperating)
- manipulation by either party (instead of mutual respect)
- inadequate attention to the preparation stage (for example, failing to set clear goals or to develop an action plan to meet desired goals)
- a casual approach to meetings or other forms of contact with a mentee (for example, unilateral changes to meeting times without good reason and not making further arrangements immediately)
- lack of organization or preparation for meetings with a mentee
- overstepping the boundaries of the agreed-to mentorship style—for example, straying into tutoring or direct training

3 Mentoring TSP Coaches

3.1 Overview

The Team Software Process (TSP) has grown and transitioned through the technology adoption life-cycle curve from early adoption to the early majority phase [Moore 2002]. In response, the SEI has changed the TSP introduction strategy to better support the needs of a different category of technology adaptors. An essential element in this strategy is the inclusion of a formal mentoring program for TSP coaches. This program expands the coach training (which focused primarily on preparing and conducting the TSP team launch) to include other aspects, such as overseeing the associated meetings conducted during the project-development cycle, helping teams to collect and interpret data, and providing guidance on appropriate and effective interactions with TSP team sponsors, leaders, and members.

The TSP coach training program also reflects a response to comments received from the SEI's TSP Users Survey conducted in 2006. Community input, as reflected in the following survey findings, is a vital element influencing the growth of TSP into wider adoption in software engineering practice:

- A majority of the survey respondents agreed that the 2006 coach training model needed revision and that adding several levels of coach qualification was necessary.
- Feedback described the 2006 coach qualification track as a hindrance to the growth of TSP use in an organization, especially to widespread transition across the organization.
- Survey respondents noted in the write-in comments that a key area of concern was the need
 to implement coach qualification tracks that better suited the scalability needs of the
 customer.
- Respondents agreed that adding mentoring to the qualification track would benefit both individuals and organizations.

The training model that was in effect at the time of the 2006 survey resulted in successful candidates receiving the designation of SEI-Authorized TSP Coach. The authorization requirements were

- successful completion of the PSP for Engineers course, or the PSP Fundamentals and PSP Advanced courses
- successful completion of the SEI-Certified PSP Developer credential
- sponsorship by an SEI Partner
- successful completion of the TSP Coach course
- successful performance as a coach in a TSP team launch (as determined through observations conducted by qualified SEI personnel)

The revised qualification model being introduced by this guidebook requires three levels of qualification, each with definitive entry and exit gates. These levels are Provisional TSP Coach, SEI-

Certified TSP Coach, and SEI-Certified TSP Mentor Coach. This three-tiered model provides organizations with more scalability and decreased costs when broadening the implementation of TSP across multiple sectors of the organization, and provides individuals with more options to apply their TSP experiences as coaches within the organization.

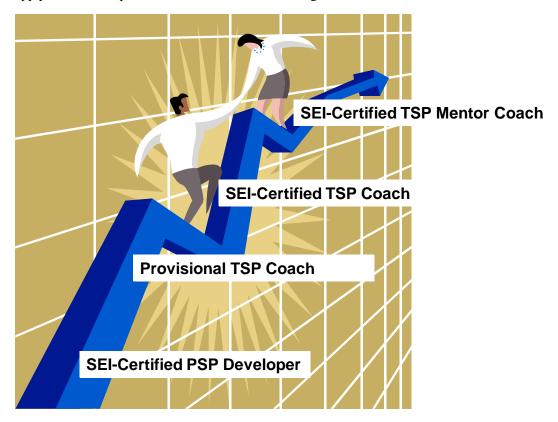


Figure 3: Multi-Tiered Qualification Model

3.1.1 Why is Mentoring needed in the TSP Coach Qualification Model?

Recent studies and workforce research indicate that additional on-the-job training is needed to increase employee productivity and decrease the time needed to produce quality work. A study performed by the American Society of Training and Development found that while training alone increased manager productivity by 24%, productivity was increased by 88% when training was combined with coaching and mentoring support strategies [Sweeny 2003]. The study defined mentoring as

- a series of tasks that effective mentors must do to promote the professional development of others
- the intense, trusting, supportive, positive, confidential, low-risk relationship within which the partners can try ways of working and relating, make mistakes, gain feedback, accept challenges, and learn in front of each other
- the complex developmental process that mentors use to support and guide their mentees
 through the necessary career transitions that are part of learning how to be an effective, reflective professional and a career-long learner

The TSP coach qualification model includes mentoring in order to provide new coaches with guidance and support in a controlled environment that allows new coaches to implement the skills and knowledge gained through PSP/TSP training. The mentorship structure gives a new coach both an opportunity for practice and feedback on performance, thereby optimizing the learning experiences gained through interactions with TSP teams and the TSP Mentor Coach.

3.2 The TSP Coach Qualification Model

The qualification model accounts for the needs of a newly-trained coach to implement the know-ledge and skills learned in the classroom into real-world practice under the tutelage of an experienced coach. The mentoring element replaces the former requirement for on-site observation by SEI personnel, and allows written evaluations (such as the final evaluation of data and the written exam) to be accomplished remotely, eliminating the need for costly travel by either the new coach or the coach evaluators.

The inclusion of mentoring in the qualification model also provides a path for continued personal and professional growth, by providing the opportunity for qualified and interested TSP coaches to become SEI-Certified TSP Mentor Coaches.

An outline of the TSP coach qualification model is shown in Figure 4 and Figure 5.

3.2.1 The Provisional Coach

A provisional coach has acquired the knowledge necessary to conduct a launch or relaunch and to coach a TSP team, but lacks the experience necessary to be a certified coach. The provisional coach has received the basic education and training in TSP and PSP, and is ready to apply these skills and knowledge under the supervision of a mentor coach.

A provisional coach must satisfy the following criteria before the mentoring phase can begin:

- Successfully complete the PSP course from the SEI, an SEI-Authorized PSP instructor, or an accredited university.
- Be recommended by the PSP instructor who taught your PSP course.
- Have the SEI-Certified PSP Developer credential.
- Be sponsored by an SEI Partner.
- Sign the SEI Code of Professional Conduct.
- Successfully complete the TSP Coach Training course.

A provisional coach must complete the following mentor-guided activities to become certified:

- As a provisional coach, successfully complete at least one each of the following TSP events within 18 months of entering provisional coach status:
 - TSP Launch
 - TSP Checkpoint
 - TSP Relaunch
 - TSP Project or Cycle Postmortem

- Successfully complete all associated responsibilities of a TSP coach as outlined in tasking areas C through G of the TSP Coach Job Analysis Report (see Appendix B). Successful completion must be confirmed by an SEI-Certified TSP Mentor Coach via the final assessment report. The Mentor Coach must also provide a recommendation that the provisional coach be allowed to become an SEI-Certified TSP Coach.
- Successfully complete the TSP Coach Certification written exam. (NOTE: the provisional
 coach is allowed a maximum of three attempts at passing the exam. Failure to pass the exam
 on the third attempt will disqualify the individual from becoming an SEI-Certified TSP
 Coach.)

A provisional coach has permission to use the TSP tool and intellectual property under the sponsor's license agreement for the duration of the provisional period and is subject to annual support payments, as outlined in the partner agreement. The maximum completion time for the provisional coach period is 18 months, with an option to apply for an extension (subject to approval by the SEI).

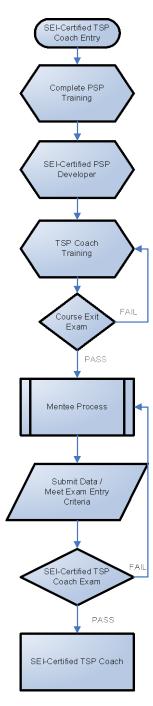


Figure 4: Steps to Become an SEI-Certified TSP Coach

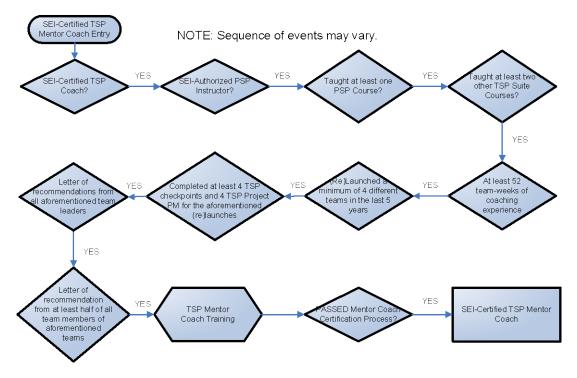


Figure 5: Steps to Becoming an SEI-Certified TSP Mentor Coach

3.2.2 The SEI-Certified TSP Coach

The designation of SEI-Certified TSP Coach is conferred upon individuals who have completed all training and testing requirements as outlined in Figure 4. These individuals are fully qualified to coach a TSP team. An SEI-Certified TSP Coach has been mentored by an SEI-Certified TSP Mentor Coach, was evaluated against a standard in the form of a written examination, and has demonstrated the skills necessary to successfully coach a TSP team. The SEI-Certified TSP Coach can apply PSP/TSP principles in ill-defined team and organizational situations and is able to guide teams toward superior performance. The SEI-Certified TSP Coach also acts as a champion for PSP/TSP, motivating new developers, managers, and executives to adopt these technologies.

SEI-Certified TSP Coaches must renew their certification every two years. Renewal criteria are

- Maintain currency of the SEI-Certified PSP Developer credential.
- Be an SEI-Certified TSP Coach in good standing.
- At a minimum, submit data for one complete TSP cycle, which includes the following:
 - Launch or Relaunch
 - workbooks (overall, consolidated, and individual)
 - questionnaires (site, project, and team member)
 - evaluations (launch and relaunch)
 - presentations from launch meetings 1 and 9
 - Checkpoint
 - report of findings and recommendations

- workbooks (consolidated and individual)
- Project or Cycle Postmortem
 - postmortem report
 - workbooks (consolidated and individual)

3.2.3 The SEI-Certified TSP Mentor Coach

An SEI-Certified TSP Mentor Coach is responsible for providing provisional coaches with the guidance and support necessary to effectively coach TSP teams. A mentor coach is an experienced person who acts as a trusted counselor, role model, and guide to a less experienced person or a newcomer into the practice. A mentor coach has completed the required training and has gained sufficient experience in coaching successful TSP teams to counsel and mentor provisional coaches. A mentor coach also prepares provisional coaches for their final evaluations to become SEI-Certified TSP Coaches. In order to provide each provisional coach with the attention needed for success, a mentor coach is permitted to mentor no more than four provisional coaches at any given time.

The SEI-Certified Mentor Coach must meet all of the following criteria for certification:

- Submit an application with all required supporting data.
- Be an SEI-Certified TSP Coach in good standing.
- Be an SEI-Authorized PSP Instructor.
- Teach or co-teach three of the courses from the TSP product suite (http://www.sei.cmu.edu/partners/tsp/materials/); these courses must be any one PSP course and any two non-PSP courses listed in the product suite.
- Launch (or relaunch) a minimum of four different teams during the five-year period immediately preceding the mentor coach application. The launch or relaunch to postmortem cycles must total at least 52 team-weeks of coaching experience. Evidence must be available from data submissions made to the SEI.
- Complete a minimum of four each of the following TSP events associated with the aforementioned (re)launched teams, as evidenced with reports and actual data submitted to the SEI:
 - TSP checkpoints
 - TSP project postmortems
- Obtain a letter of recommendation to be a mentor coach from all team leaders of the aforementioned (re)launched teams, and at least 50% of the associated team members.

An SEI-Certified TSP Mentor Coach must renew his or her certification every four years. Renewal criteria are as follows:

- Be an SEI-Certified PSP Developer in good standing.
- Be an SEI-Certified TSP Coach in good standing.
- Be an SEI-Authorized PSP Instructor in good standing.
- Successfully mentor at least two provisional coaches through the complete process of becoming SEI-Certified TSP Coaches.

4 The TSP Mentoring Program

This guidebook will help mentors and provisional coaches to set achievable goals and to assess areas in which growth and development are needed to complete the qualification track. This section defines the TSP Mentoring Program and provides guidelines to be used while executing the mentoring program.

4.1 TSP Mentoring Phases

Figure 6 and Figure 7 outline the TSP mentoring phases. These phases are expansions of the mentoring relationship phases shown in Figure 2. Depending on the provisional coach's developmental goals and the action plan developed by the mentor and provisional coach during the Preparation/Prescriptive phase, the next step in the developmental progression could be the Persuasive phase, the Enabling/Collaborative phase, or a combination of both.

During the Persuasive phase, there are many meetings throughout the TSP cycle that the mentor should attend. For these events, the mentor may attend in person or remotely via video teleconference or similar means. It is important that the mentor take the role of a silent observer during these events, as it is the provisional coach's job to coach the team, not the mentor's job. The mentor must refrain from correcting or evaluating the provisional coach during these events. The mentor should hold any comments or recommendations until after the event or during a break. The mentor is present mainly to ensure that the provisional coach is successful. Therefore, the mentor should remain as invisible as possible to allow the provisional coach to learn and gain experience and to maintain credibility with the team being coached.

The mentoring artifacts and the TSP cycle events outlined in Figure 6 and Figure 7 are designed to guide the mentor and provisional coach through the many duties and skills expected for a certified coach, as outlined in Appendix B (the TSP Coach Job Analysis Report). As the mentor and provisional coach work their way through the TSP cycle events, they should use the questions contained in Appendix A to stimulate thinking and to help guide the interaction between them successfully. The mentor is not expected to be an expert in every subject area, but mentors are expected to utilize their network of resources to augment their own skill set. The mentor should also review and provide feedback to the provisional coach on all mentoring artifacts as they are produced, using forms LOE, LOS, and MAE as appropriate.

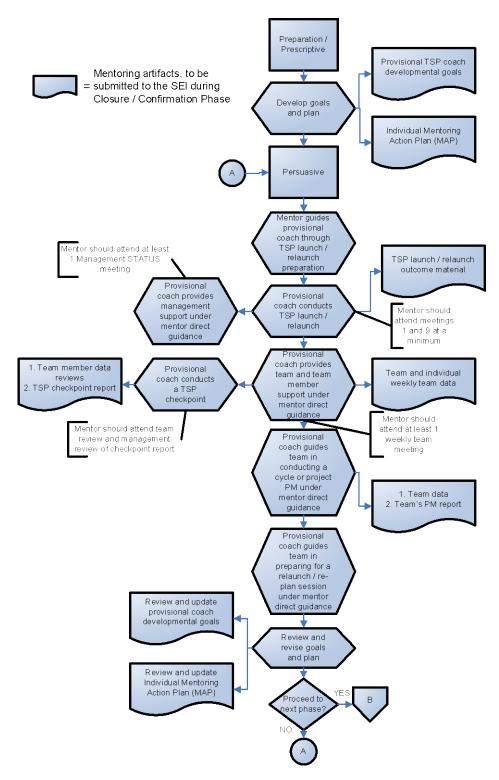


Figure 6: TSP Mentoring Program—Preparation/Prescriptive and Persuasive Phases

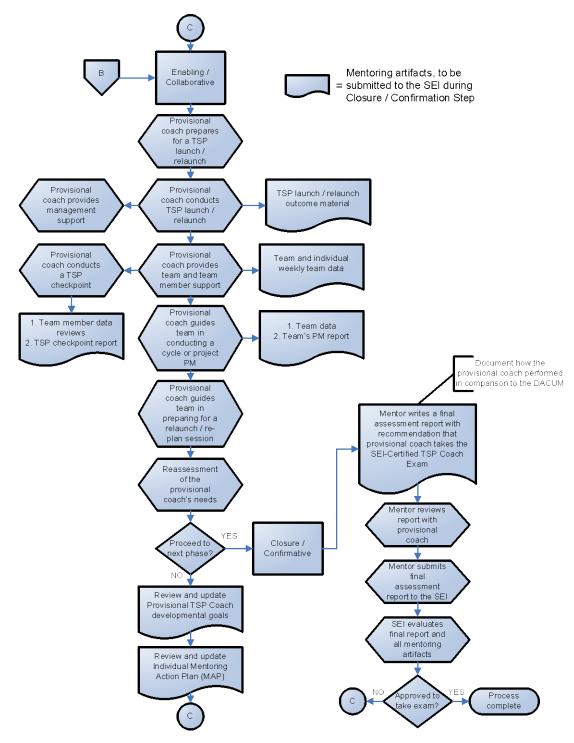


Figure 7: TSP Mentoring Program—Enabling/Collaborative and Closure/Confirmation Phases

4.2 Conducting Mentoring Sessions

The following list outlines suggestions that can help ensure that the mentor and the provisional coach have productive mentoring sessions:

- The first meeting or conference call should be long enough to complete planning goals and expectations and scheduling needs. This meeting generally takes two hours.
- Both mentor and provisional coach should review this guide before their first meeting. It should be used as a reference for future meetings.
- The provisional coach should be ready to discuss the project status during the mentor meeting, and should be able to easily access needed details. Mentoring artifacts should be readily available to both parties.
- Mitigation steps should be identified for any identified areas for improvement.
- The mentor should provide copies of all mentoring reports to the provisional coach. This includes a copy of the final assessment report.
- A date and time for the next mentoring session should be set before each meeting ends. It is
 recommended that the mentor and provisional coach spend at least 30 minutes each week reviewing and updating their Mentoring Action Plan.

4.3 Guidance for Mentors and Provisional Coaches

A mentor may be able to judge the provisional coach's progress from reviewing only the mentoring artifacts, as outlined in Figure 6 and Figure 7. However, it is more likely that the mentor will require additional information to assess whether the provisional coach is preparing properly for his or her coaching work. This section discusses areas in which the mentor needs to ensure that the provisional coach is progressing in the development track. We have designated specific areas of tasking where a provisional coach should show competency of knowledge and skills to be a successful TSP coach.

Key Question: What should the mentor be asking/doing to ensure that the provisional coach can be successful?

Mentors should ask the questions that lead their provisional coaches to function successfully in coaching their provisional teams and, more importantly, that will ensure that the provisional coaches master the skills needed to coach future projects once the mentoring relationship has concluded. For example, when validating the required mentoring artifacts, the mentor should ask questions about how the information was obtained and what information might have been missed.

General Guidance on Answering Questions

Provisional coaches are very likely to ask lots of questions of the mentor. The mentor should use careful judgment about whether to answer the question immediately, or to lead the provisional coach to derive his or her own answer. The mentor may reasonably respond by repeating the question for the provisional coach to answer, or may ask other questions in lieu of providing an answer. Such questions could be:

- Why did you ask that question?
- What do you think the options are?
- Which option would you pick and why?
- Why would you be nervous about that option?

After having a dialogue around those topics, if the original question is still unanswered, the mentor may provide a personal opinion or point the provisional coach to another person or resource. The mentor coach can also draw guidance from the information in the various appendices of this document:

Appendix A contains questions that a mentor may ask of a provisional coach to determine knowledge and/or skill competency levels in the required topic areas.

Appendix B is a TSP coach job-task analysis conducted in 2006 by the SEI and the Ohio State University, and is drawn from the expertise of TSP professionals in government, academia, and industry. The resulting information was segmented into the following core areas in which it was deemed that TSP coaches must be competent; Sections C through G (listed below in bold font) are areas that should be of particular interest for potential SEI-Certified TSP Coaches and Mentor Coaches, as these are the areas in which they are expected to demonstrate mastery:

- A. Prepare Organization for Initial TSP Usage
- B. Provide TSP Domain Training
- C. Facilitate TSP Team Launch
- D. Guide Personal Process Usage
- E. Guide Team Process Usage
- F. Guide Management in TSP Usage
- G. Support Data Analysis and Usage
- H. Support Organizational TSP Infrastructure
- I. Perform Administrative Activities
- J. Pursue Professional Development

Competence in all of these coaching task areas is important in the development of a TSP provisional coach. However, during the early training stages, it is critical to a new TSP coach's success to understand and perform well in the specific task areas highlighted above (items C through G).

Appendix C contains the relevant forms that are kept during the provisional qualification process. These forms must be completed, with the original sent to the SEI as part of the TSP Coach Mentoring Program.

4.4 TSP Coach Mentoring Roadmap

In general, the mentoring process for TSP provisional coaches includes the following five steps:

1. **Assigning mentors and provisional coaches**. Mentors and provisional coaches are paired based on availability, location, and experience in the TSP environment. If necessary, the SEI

- will assist provisional coaches in locating suitable SEI-Certified TSP Mentor Coaches. The Provisional Coach Mentoring Program Application (see Section 4.5.1.1) is used in the assignment of mentors and provisional coaches.
- 2. Creating the Mentoring Action Plan (MAP). A successful mentorship outcome depends on setting goals, expectations, and timetables. The Mentoring Goals form (see Section 4.5.1.3) provides guidance to the mentor coach in outlining specific short- and long-term goals with the provisional coach. These goals are based on an individual assessment of the provisional coach's needs (see Section 4.5.1.2) and are supported by an active mentoring partnership. Once the mentor and provisional coach have determined the mentorship goals, they can prepare the MAP (see Section 4.5.1.4). The MAP is the tangible output of the first meeting or conference call, and records the timetable of events for reaching the identified goals, as well as the objectives and tasks associated with each event.
- 3. **Following the MAP**. The mentor is responsible for ensuring that the steps in the qualification track are completed according to the plan developed with the provisional coach.
- 4. Evaluating Progress. The questions listed in Appendix A provide an excellent tool for the mentor to use in evaluating and guiding a provisional coach's progress. Just as TSP teams are advised to conduct weekly meetings, mentors and provisional coaches must regularly communicate with each other and share progress and obstacles. Mentors and provisional coaches are advised to spend at least 30 minutes each week updating the MAP.
- 5. **Assessing performance**. At the conclusion of the mentoring relationship, the mentor coach evaluates the provisional coach. The mentor coach completes the final assessment report (see Section 4.5.2) and submits it to the SEI for review and validation. The final report contains the information needed to verify that the provisional coach has successfully worked through the TSP cycle and is ready to take the TSP Coach Certification Exam and become an SEI-Certified TSP Coach.

4.5 Communication and Record Keeping

Several forms have been created to support the communication and record-keeping needs of the SEI-Certified TSP Coach Mentoring Program. The forms are contained in Appendix C, with a brief description of each form provided in the sections below.

4.5.1 Becoming an SEI-Certified TSP Coach

4.5.1.1 Provisional Coach Mentoring Program Application – Form MPA

Before a provisional TSP coach can enter the SEI-Certified TSP Coach Mentoring Program, the candidate first must find an SEI-Certified TSP Mentor Coach to serve as mentor. After securing a mentor, the provisional coach completes the Provisional Coach Developmental Needs Self-Assessment form, meets with the mentor coach to discuss developmental goals and create an individual mentoring action plan. The results of the initial meeting are captured in the Mentoring Goals and Mentoring Action Plan forms. The provisional coach then completes the Provisional Coach Mentoring Program Application form and submits it to the SEI for approval, along with the completed Provisional Coach Developmental Needs Self-Assessment, Mentoring Goals, and Mentoring Action Plan forms.

If a provisional coach applicant is unable to find an SEI-Certified TSP Mentor Coach, the applicant may request the SEI to provide assistance in finding a suitable mentor. This is done by submitting such a request to the SEI along with the Provisional Coach Mentoring Program Application. When a mentor is found, the provisional coach must complete the Provisional Coach Developmental Needs Self-Assessment, Mentoring Goals, and Mentoring Action Plan as described above and submit them with a revised Provisional Coach Mentoring Program Application.

4.5.1.2 Provisional Coach Developmental Needs Self-Assessment – Form DNSA

One of the objectives of an SEI-Certified TSP Mentor Coach is to provide guidance based on the provisional coach's learning and development needs and objectives. To accomplish this, the provisional coach must provide input about the personal development goals and work with the mentor to identify the developmental goals and desired results of the mentoring process. The Provisional Coach Developmental Needs Self-Assessment is intended to facilitate this process. The provisional coach should complete this assessment prior to the initial meeting with the mentor to provide a starting point for identifying developmental goals and creating an individual mentoring action plan. This form is submitted to the SEI as part of the Provisional Coach Mentoring Program Application.

4.5.1.3 Mentoring Goals - Form MG

One of the first steps in creating a mentoring relationship is to create the mentoring goals. The Mentoring Goals form is used to document the provisional coach's developmental goals that should be accomplished as a result of the mentoring relationship and that were agreed to by both the mentor and provisional coach. The goals and objectives should be in line with the provisional coach's developmental needs and should be reviewed and updated as the provisional coach progresses through the TSP mentoring process. This form is submitted to the SEI as part of the Provisional Coach Mentoring Program Application.

4.5.1.4 Mentoring Action Plan - Form MAP

The mentoring action plan (MAP) is prepared during the first meeting with the mentor coach. The MAP records the timetable of events and the objectives and tasks associated with each event. The MAP is a dynamic document that is updated periodically to reflect reality. The mentor is responsible for ensuring that the steps in the qualification track (as outlined above in Section 3.2.1) are completed according to the MAP. The original MAP is submitted to the SEI as part of the Provisional Coach Mentoring Program Application.

4.5.2 Provisional Coach Evaluation and Data Submission

4.5.2.1 Mentoring Artifact Evaluation – Form MAE

The Mentoring Artifact Evaluation form is used by the mentor to review and provide feedback to the provisional coach on all mentoring artifacts (as outlined in Figure 6 and Figure 7) during the provisional coach's progress through the mentoring program. The mentor must provide feedback in a timely manner if the evaluation is to be effective. The evaluation forms are submitted to the SEI as part of the Final Assessment Report.

4.5.2.2 TSP (Re)Launch Observation Evaluation (Form LOE) and Summary Forms (Form LOS)

The provisional coach's developmental goals and MAP may require the mentor to attend the provisional coach's (re)launch as an observer. It is recommended, but not required, that the mentor attend the provisional coach's first (re)launch in its entirety. At the very least, the mentor should attend meetings 1 and 9. The mentor coach should follow these guidelines when observing the provisional coach:

- The provisional coach conducts the (re)launch.
- The mentor coach observes and evaluates the candidate's performance.
- The mentor coach should refrain from participating in the (re)launch.
- The mentor coach should promptly and privately discuss the provisional coach's performance whenever the mentor identifies problems.

During the observation, the mentor observes and evaluates the provisional coach's performance using the (Re)Launch Observation Evaluation form, then summarizes the observation on the (Re)Launch Observation Summary form. The mentor coach also evaluates the (re)launch artifacts using the Mentoring Artifact Evaluation form and provides feedback to the provisional coach at the end of the (re)launch. The provisional coach submits the (re)launch artifacts to the SEI using the TSP Data Submission Form. All evaluation forms are submitted to the SEI as part of the Final Assessment Report.

4.5.2.3 TSP Data Submission Form – Form DSF

The TSP Data Submission form is used to submit all TSP cycle data to the SEI. It is used by both provisional coaches and SEI-Certified TSP Coaches. A separate form must be used for each TSP cycle event.

4.5.2.4 Final Assessment Report – Form FAR

When the provisional coach has worked through the entire TSP cycle at least once and the mentor is satisfied with the provisional coach's performance, the mentor submits a final assessment report to the SEI with a recommendation for the provisional coach to become an SEI-Certified TSP Coach. The SEI will review the final assessment report, validate the results, and, if all entry criteria have been fulfilled, will notify the provisional coach of his/her eligibility to take the TSP Coach Certification Exam. If the entry criteria were not met or the mentor coach does not recommend the provisional coach for certification, the SEI will notify the provisional coach of any outstanding issues that must be remediated.

4.5.3 Becoming a Mentor Coach

4.5.3.1 Mentor Coach Application – Form MCA

A candidate for the SEI-Certified TSP Mentor Coach credential must meet all prerequisites as outlined in Section 3.2.3 above, complete the Mentor Coach Application, and submit it to the SEI with the application fee. The SEI will verify that the applicant has met all requirements, including all recommendations from TSP team leaders and members (as outlined below), before accepting

the applicant into the Mentor Coach Qualification track. Upon successful completion of Mentor Coach training, the applicant will be awarded the SEI-Certified TSP Mentor Coach credential.

4.5.3.2 Mentor Recommendation - Form MR

As part of the SEI-Certified TSP Mentor Coach Application, the mentor coach applicant must provide a recommendation from multiple leaders and members of TSP teams coached by the applicant as an SEI-Certified TSP Coach. The applicant must complete the Applicant's Section before providing it to the TSP team leaders and members, who will complete the remainder of the recommendation form and submit it to the SEI.

4.5.4 TSP Coach Mentoring Program Evaluations

4.5.4.1 Provisional Coach Mentoring Evaluation – Form PCME

As a way to assess the effectiveness of the SEI-Certified TSP Coach Mentoring Program and to provide feedback to SEI-Certified TSP Mentor Coaches on their performance, the SEI will collect certain information from provisional coaches. When a provisional coach submits a final assessment report to the SEI, he or she will receive a Coach Mentoring Evaluation form to be completed and returned by the provisional coach. Once the mentor has mentored several provisional coaches, the provisional coach's comments will be compiled and sent to the mentor.

4.5.4.2 Mentor Coach's Mentoring Program Evaluation – Form MPE

Upon receipt of the first provisional coach's final assessment report, the mentor will receive a Mentor Coach's Mentoring Program Evaluation form that will ask for information about the mentor's experiences and opinions about the mentorship and the mentoring program. Information from these evaluations will be used to improve the SEI-Certified TSP Coach Mentoring Program. After the receipt of the first evaluation, the mentor coach will be asked to complete the evaluation form on an annual basis, rather than after the completion of every mentoring relationship.

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Appendix A Targeted Questions

The TSP Coach Job Analysis (contained in Appendix B) identifies the seven major task areas in which successful TSP coaches are expected to attain proficiency. The provisional coach in the SEI-Certified TSP Coach qualification track should concentrate his or her initial efforts on mastering skills from Tasking Areas C through G. The tables below provide subtopic divisions with associated targeted questions that a mentor can use to gauge the knowledge, skills, or abilities of a provisional coach. These questions are not required, nor should the list of questions be considered complete; rather, they provide a representative sample of open-ended questions that can help to clarify the topic scope and challenge a provisional coach's understanding. The forms in Appendix C can be used to record the evaluation findings elicited by these questions and to record any necessary mitigation steps.

Task Area C: Facilitate TSP Tea	am Launcn
C-1 Prepare management for	Describe the history of the project.
launch	2. What work has already been done?
	3. Who are the key management people and customers who care about this project?
	4. Have the key project stakeholders provided a presentation to kick off the project and launch?
	5. If this project has failed in the past, what led to its failure?
	6. When the team presents the final plan to management with alternatives, management prepared?
	7. Is it clear who has the decision authority to approve the plan or select an alternative?
	8. Does the decision authority know what questions to ask?
	9. Has the decision authority formulated a response in case the team says that the plan will take significantly longer than management anticipated?
C-2 Prepare TSP team lead for launch	Does it seem to you (the provisional coach) that the team leader understands how a self-directed work team should function.
	2. Does the team leader seem willing to work in that way?
	3. Do all team members have the TSP launch scripts?
	4. Tell me about the room where you're having the launch.
	5. What is your schedule for the launch?
	6. Are there any unusual circumstances that you think will affect the launch?
	7. Have you confirmed management availability for meeting 9?
C-3 Prepare TSP team for	1. Who are the presenters for meeting 1?
aunch	2. How did you get this list of presenters? Who could be missing from the list?
	3. Have all of the key stakeholders for the project agreed on the content of the meeting 1 presentation?
	4. Does the meeting 1 presentation clearly answer the big questions of what is the content and when is it needed?
	5. Is management prepared to answer the question, "What is the top priority between resources, schedule, cost, and content?"
C-4 Arrange for TSP launch	1. Where will the launch take place?
logistics	2. Will this be on or off site?
	3. What catering or alternatives will be arranged?
C-5 Guide creation of draft con-	How many components does the conceptual design contain?
ceptual design (prior to launch)	2. How are they similar to or different from previously developed components?
C-6 Plan for departures from the norm	How might you need to customize the launch scripts?
C-7 Provide conditions for TSP team to jell	What do you think would be the most effective thing you could do to help a team jell?
C-8 Guide TSP team in selecting	Are you prepared to describe team roles, if asked?
appropriate roles	2. Have you and the team leader discussed whether the team leader wants to give any guidance regarding team roles?
	3. If this is a relaunch, have you talked with the team leader about whether the same roles will continue?

 What are some coaching suggestions you would give to the team leader prior to meeting 2?
2. How do you intend to lead the team in establishing goals?
3. What's an example of an implied goal?
4. What would you do if the team's goals are not measurable?
5. What would you do if the team's goals are not achievable?
6. How do you prevent the team from taking management goals as their only goals?
7. How would you ensure that there's an adequate record of actions taken during the meeting?
8. How would you conduct a meeting postmortem?
9. What is a suitable number of goals for this team?
 What general guidelines would you give to the team leader prior to meeting 3?
2. What general guidelines would you give to the design manager prior to meeting 3?
3. What (if anything) would you do if the team struggles with its conceptual design?
4. What (if anything) would you do if the conceptual design appears to be too sketchy?
5. What (if anything) would you do if the conceptual design appears to be overly detailed?
6. What (if anything) would you do if meeting 3 is lasting much longer than anticipated?
7. Can you give an example of a Product Breakdown Structure if you need to?
8. Can you explain why there are three different "passes" at establishing an estimate (meetings 3, 4, 6)?
NOTE: Questions such as these should be asked in such a way that the provisional coach does not think that he or she should play an active role in the team's decision process.
What are the issues that should drive the team's selection of a development strategy?
2. What do we mean by strategy? How does it relate to conceptual design?
3. Are there any external factors that could affect the strategy, other than the end date?
Have you talked to the team leader about the processes (if any) that the team already has?
2. What are some examples of processes that you can describe if someone on the team asks what is supposed to happen here?
3. What is the granularity of process steps that the team should attempt to achieve?
4. What are some examples of process elements that a new team might typically be missing?
5. Who should lead this meeting? Coach? Design manager? Planning manager?
6. Have we looked at any standard company processes that can be tailored to fit the project?
 What are some key activities that should be in the role plan for the XXX manager? (You don't need to do all eight—but enough to feel confident that the provisional coach understands what should be in a role plan.) How much effort is planned for their roles?

C-14 Develop TSP coaching plans	Does your coaching plan deviate from the standard coaching plan? If there is no deviation, why not? If there is a deviation, why was it necessary?
	2. How experienced is the team in using TSP?
	3. What specific coaching do you expect the team to need?
C-15 Guide TSP team in developing overall plan (top-down	What general guidelines would you give to the team leader prior to meeting 4? Or, what guidelines have you given to the team leader?
plan)	2. What general guidelines would you give to the planning manager prior to meeting 4? Or, what guidelines have you given to the planning manager?
	3. How do you intend to introduce the TSP planning tool to the planning manager?
	4. How do you intend to make the planning manager the primary tool user?
	5. Can you give an example of how to derive a Work Breakdown Structure from a Product Breakdown Structure?
	6. What (if anything) would you do if meeting 4 is lasting much longer than anticipated?
	7. What can you do to keep team members focused during meeting 4?
	8. What periods do "short term" and "long term" refer to?
	9. What would you do if a team has no data on what to base size or effort estimates?
	10. What would you do if everyone on the team appears to be estimating a very high number of task hours per week? Low task hours?
	11. Do you have a plan for dealing with the "dead-time" while data is being entered into the tool?
	12. How are you going to build the TSP Size Summary (SUMS) and enter it into the tool?
	13. How do you plan to build the tasks from SUMS?
C-16 Provide early warning to senior management if their goals cannot be met	At what stage in the launch would you be able to provide information to management that the team is having difficulty meeting the desired management goals?
	2. What information would you provide to management?
	3. How would you provide the information to management?
	4. What information would you not provide to management?
	5. After providing an early warning to management about the team's ability to meet management goals, would you take any messages back to the team?
	6. How do you deal with potential denial problems?
C-17 Guide TSP team in creating quality plan	What general guidelines would you give to the quality manager prior to meeting 5?
	2. Would you suggest to the team that it use the quality guidelines that are available in the TSP tool?
	3. Would you encourage the team to visit/revisit their quality goals during this meeting?
	4. How can you use the tool to demonstrate the effect of various assumptions about defect injection and removal rates?
	5. What (if anything) would you do if the team appears to be making unrealistic assumptions about defect injections and/or removals?
	What problems do you expect to encounter and how do you anticipate mitigating them using the tool?

C-18 Guide team in creating	1. What general guidelines would you give to the planning manager prior to
individual TSP plans	meeting 6?
C-19 Guide TSP team in balanc-	2. How can you help the team to achieve a balanced plan?
ing workload C-20 Guide TSP team in conso-	How do you intend to introduce the TSP planning tool to the planning manager?
lidating individual TSP plans	manager:
C-21 Guide TSP team in reviewing plans	1. How will you know that the team has a plan that satisfies management's goals?
	2. Is there something that you would expect management to ask for?
	3. How are you going to handle those goals that your plan doesn't address?
C-22 Guide TSP team in creat-	1. At what time in the launch would you begin to discuss alternative plans?
ing alternative plans	2. How will the team determine whether alternative plans are needed?
	3. How many alternative plans do you think a team should prepare?
	4. What alternatives should they consider?
	5. Why not more (or fewer)?
	6. How can you use the TSP tool to develop alternative plans?
	7. How can the team estimate the effects of alternative assumptions?
C-23 Guide TSP team in creat-	1. What are the essential elements of the team's summary project plan?
ing summary project plan	2. Who should take the lead in preparation of the summary project plan?
C-24 Guide TSP team to identify	1. How can you ensure that the team is focusing on the right kinds of risks?
and mitigate risks	2. What examples of risks could you present that would help the team to
	then distinguish between risks and issues?
	3. What techniques can you use to elicit legitimate risks?
C-25 Guide TSP team in preparing management briefing	What are some elements of the management briefing that you think are essential?
	2. What template will the team use?
	3. Describe how the team will present the plan.
	4. Does the briefing cover all the topics?
	5. Does it answer likely management questions?
	6. Does it tell management at the beginning what the punch line is?
C-26 Guide TSP team in brainstorming questions management	What are some examples of questions that you might suggest if no team member comes forward with questions?
is likely to ask	2. What is most important to management?
	3. What is likely to surprise them?
	4. What will management ask about
	a. Assumptions?
	b. Products?
	c. Dates?
	d. Milestones?

C-27 Guide TSP team leader in preparing for management meeting	Do you think there are any special circumstances involving the management team or the development team that would call for additions or deletions to the suggested format?						
	2. Have you had a "dry run" of the presentation?						
	3. Are there any significant issues with this plan that warrant going to management prior to the meeting?						
	4. What are your primary plan assumptions?						
	5. How did you come to those assumptions? In what way (if any) does the main plan not fully satisfy management goals?						
	6. How will alternate plans address the main plan shortcomings?						
	7. Why did the team select these specific alternates?						
	8. How will you respond if management proposes something not considered in your alternative plans?						
	9. How will you handle the situation if management asks for a commitment to a plan that is not your proposal or one of your alternates?						
	10. If management agrees to your main plan or an alternate, are you ready to begin work?						
	11. What are your greatest plan risks and how will you address them?						
	12. What do you require from management to enact your plan or an alternative?						
	13. Are you fully committed to the plan and the alternates?						
	14. Are you convinced that the team is committed to the plan?						
C-28 Guide TSP team in conducting the management briefing	Would you ever step in and take a larger role in the management briefing?						
C-29 Obtain management ap- proval for team plan	How do you ensure that the team and management will leave the meeting with the same understanding of meeting 9 outcomes?						
C-30 Guide TSP team in provid-	1. Who are the technical stakeholders for this project?						
ing outbrief to technical stake- holders	2. What are the essential elements of the outbrief for each of them?						
C-31 Guide TSP team in con-	1. How can the team benefit from the launch PM?						
ducting launch Postmortem (PM)	2. How can you benefit from the launch PM?						
C-32 Train new TSP teams in	1. What tool will the team use? Are you familiar with that tool?						
tool usage	2. Are most members of the team familiar with the tool?						
	3. How do you intend to train team members who are not familiar with the tool?						
C-33 Facilitate the use of launch scripts	Will all members of the team have the launch scripts at hand during the launch?						
	2. What will you do during the launch to ensure that team members are aware that the launch is following a script?						
C-34 Coordinate cross-team	Is more than one team involved in this project?						
involvement	2. Have you and the team leader talked to the coaches and team leaders of the other teams?						
	3. What role managers will coordinate with other teams?						
	4. How does your coaching role differ when a project involves multiple teams?						
Task Area D: Guide Personal Pr	ocess Usage						
D-1 Conduct individual data	How have you prepared to conduct the reviews?						
review	2. What data are you reviewing? Why did you choose that data at this time?3. When are you reviewing the data (the data that should be going into the weekly consolidation)?						

D-2 Identify individual strengths and weaknesses	What individual strengths and weaknesses do you see in the team members?
	2. What data led you to these conclusions?
D-3 Guide individuals with im-	How did you identify improvement goals?
provement goals	2. Who identified these improvement goals?
	3. What problems did the individuals have in establishing these goals?
	4. What is your role in helping individuals to develop these goals?
D-4 Guide individuals' process	Where are PIPs stored?
improvement plans (PIPs)	2. How often are they reviewed? In what order?
	3. How are they acted on?
D-5 Guide individuals in presenting their status	What do you want to make sure that team members include when they present their status?
	What information should always be presented? Or, what does the rest of the team need to know?
	3. How long should each team member take to review his/her status?
	4. When might the planning manager or team leader ask for additional review of data?
	5. How will team members present their reviews?
D-6 Guide individuals in fulfilling	How much time in the meetings is devoted to role reports?
team member roles	Describe the team's various team role activities.
	How much time are role managers spending per week?
	Describe problems or issues that the team has in implementing roles.
D-7 Provide individual remedial PSP training	Have your team members finished their PSP training? If not, what will be done to finish the training?
T Cit tidiiiiig	Have you identified any problems or misunderstandings in this area?
Task Area E: Guide Team Proce	, ,,
E-1 Guide team in assessing	How much meeting time is devoted to quality issues?
quality status	How does quality data compare to the plan?
	Who is the team's quality manager? Is this individual leading the
	discussion?
E-2 Guide team in assessing	
	1. Who is the team's process manager?
process status	1. Who is the team's process manager?2. How does the team evaluate process fidelity?
process status	
process status	2. How does the team evaluate process fidelity?
process status	2. How does the team evaluate process fidelity?3. What suggestions have you made to the team regarding process usage?
E-3 Guide team in assessing schedule status	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the
E-3 Guide team in assessing	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How
E-3 Guide team in assessing schedule status	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule?
E-3 Guide team in assessing schedule status E-4 Guide team in dynamic plan adjustments (e.g., load balanc-	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?)
E-3 Guide team in assessing schedule status E-4 Guide team in dynamic plan adjustments (e.g., load balanc-	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?) Why is the team ahead or behind?
E-3 Guide team in assessing	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?) Why is the team ahead or behind? What are they doing about it?
E-3 Guide team in assessing schedule status E-4 Guide team in dynamic plan adjustments (e.g., load balanc-	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?) Why is the team ahead or behind? What are they doing about it? What guidance have you provided? How is the team handling workload imbalance? How did you identify the team's strengths and weaknesses?
E-3 Guide team in assessing schedule status E-4 Guide team in dynamic plan adjustments (e.g., load balancing, task management) E-5 Identify team strengths and weaknesses	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?) Why is the team ahead or behind? What are they doing about it? What guidance have you provided? How is the team handling workload imbalance? How did you identify the team's strengths and weaknesses? How did you come to that conclusion?
E-3 Guide team in assessing schedule status E-4 Guide team in dynamic plan adjustments (e.g., load balancing, task management) E-5 Identify team strengths and weaknesses E-6 Guide team in setting im-	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?) Why is the team ahead or behind? What are they doing about it? What guidance have you provided? How did you identify the team's strengths and weaknesses? How did you come to that conclusion? What are the team's improvement goals?
E-3 Guide team in assessing schedule status E-4 Guide team in dynamic plan adjustments (e.g., load balancing, task management) E-5 Identify team strengths and	 How does the team evaluate process fidelity? What suggestions have you made to the team regarding process usage? Is the team developing process elements that were identified in the launch? Does the team review the schedule status in the weekly meeting? How much time do they spend discussing schedule? How does the team know whether they are ahead of or behind schedule? (CPI? Hours? EV?) Why is the team ahead or behind? What are they doing about it? What guidance have you provided? How is the team handling workload imbalance? How did you identify the team's strengths and weaknesses? How did you come to that conclusion?

E-7 Guide team in developing improvement plan	 What improvement actions does the team plan? Why did they select these actions? What do they expect the effect to be? 						
E-8 Guide team in presenting its status to management	 How often does the team report to management? What information do they report? What help do they ask for when preparing or presenting the report? What level of management needs to be present? Are written reports prepared for these meetings? 						
E-9 Guide team in fulfilling TSP team roles	 Which roles are most active? Or inactive? Why? Are any of those a problem? What tasks does the team assign the role managers? Are these tasks being completed? 						
E-10 Guide team with remedial TSP training	 What TSP issues has the team encountered? What have you reviewed in the workbooks? Has the team encountered any tool issues? What were they? How did you address them? 						
E-11 Attend weekly team meetings	 How many weekly meetings have you attended? Was it in person or remotely? Are minutes taken? Who leads the meeting? What coaching advice have you provided to the team leader? Preparation? Follow up? What advice have you provided to the team members? Are team members following the scripts? Are they skipping over any parts? 						
E-12 Guide team through initial inspections	 Have you attended an inspection? What kinds of help did the team require? Are the inspections effective? Is the team following the scripts? Are they skipping over any parts? 						
E-13 Conduct checkpoint review	 How much time did you spend with individual interviews? What kinds of comments did you receive? How did this affect your data review? What were your findings? How were the findings presented to management and the team? Did you use a template? 						
E-14 Guide team to conduct cycle and project PM	 Did everyone participate? If not, why? What are the PIPs? Were there any data problems? How can the results be used to plan future projects or cycles? Were the goals measurable (SMART: specific-measurable-attainable-realistic-time-bound)? Were they achieved? Were planned risks realized? Was mitigation effective? Were any new risks identified? 						
E-15 Guide team to conduct replanning and relaunch sessions	 Why was a relaunch/replan needed? How did you decide? Describe the preparations. How long did the relaunch/replan take? Describe the result. Did any goals or the commitments change? If so, how was this addressed? 						

E-16 Guide team in managing inter/intra team dependencies	 How did the team identify and handle team dependencies? Describe cross-team dependencies. What guidance have you provided? 							
E-17 Guide team in managing risks and issues	 What major risks and issues did the team have coming out of launch? How frequently do they review the status? What is the current status? Is the team reviewing risks in the weekly meetings? 							
E-18 Guide team in achieving management goals	 What are management's primary goals? What are the team's primary goals? How do the team goals support management goals? Is the team reviewing goals in weekly meetings? 							
E-19 Guide team in developing new process elements (e.g., design standards, review check- list)	 What process elements might the team need to develop? How did they determine that new process elements would be needed? When do they need them? Which ones do they need first? Who is responsible for developing them? 							
E-20 Show team leader (and team members) how to use TSP tools	 Which TSP tools does the team use? What help has the team leader needed with the tools? What help has the planning manager needed with the tools? 							
E-21 Coordinate changes in team membership	 Has there been any turnover in team membership? Have new members received any required training? What assistance have you provided? 							
E-22 Guide team in correcting identified problems	 Have any problems arisen that need further attention? What was the situation? What mitigation steps have been taken? 							
Task Area F: Guide Managemen								
F-1 Guide management in assessing quality status	 What data should management look at in terms of quality? Does management understand the data being presented to them? What questions should management ask the team? 							
F-2 Guide management in assessing process status	 What should management look at in terms of process status? How should management respond to process shortcomings? What questions should management ask the team? Does management understand the information being presented to them? Does management understand the difference between team and organizational processes? What would you recommend that management address first from an organizational perspective in order to improve the team's effectiveness? 							
F-3 Guide management in assessing schedule status	 Does management understand the EV being presented to them? Are you prepared to explain how to interpret the EV data? What should management look at in addition to EV and EV projections? What questions should management ask when EV and projections look good? Look bad? What can management do to address task hour problems? What kinds of decisions should management be making in response to schedule problems? What information does management need to make 							
	these decisions?How would you explain the difference between task time and staff hours?Are you prepared to explain how the predicted EV is calculated?							

F-4 Guide management in dy- namic plan adjustments (e.g., load balancing, task manage- ment)	 What is management's role in load balancing? How should management assign work to a team? 						
F-5 Guide management in identifying organizational process strengths and weaknesses	Advanced (beyond the scope for provisional coaches)						
F-6 Guide management in developing organizational improvement plan	Advanced (beyond the scope for provisional coaches)						
F-7 Guide management in communicating success	Has management defined what a successful project looks like? Quantitatively? How would management define a successful TSP team?						
	How would management define a successful 13r team? How would you help management define success?						
	What are the different ways management could communicate success?						
	What are the unreferr ways management count communicate success? How could you help management communicate success?						
F-8 Guide management in re-	What are some of the different ways management could review and						
viewing and rewarding success	reward success? 2. What are some approaches that might result in unintended negative results?						
	3. Are you prepared to provide management with some productive ways for reviewing and rewarding success?						
	4. How would you address management's desire to use personal TSP data in reviewing and rewarding individual success?						
F-9 Guide management in data privacy practices	 Are you prepared to discuss the different levels of data privacy? How would you discourage management from using data inappropriately? What data should be shared between management and the team? What data should be shared among individuals and the team? What data should be shared among individuals and different role 						
F-10 Guide linkages to organizational level business goals	managers? Advanced (beyond the scope for provisional coaches)						
F-11 Guide management in developing and improving teams as organizational assets	Advanced (beyond the scope for provisional coaches)						
F-12 Sustain TSP sponsorship	Advanced (beyond the scope for provisional coaches)						
F-13 Guide management in developing and improving teams as organizational assets	Advanced (beyond the scope for provisional coaches)						
Task Area G: Support Data Anal	ysis and Usage						
G-1 Support organizational software development final analysis	Advanced (beyond the scope for provisional coaches)						
G-2 Support defect prevention analysis	 Have you conducted a TestD or root cause analysis? Describe it. How did the team come to its conclusions? What were the PIPs? Were any implemented? 						
G-3 Support handling of system test defects	 Does the team have a process for handling system test defects? Did they follow their process? What do they do? Do they perform TestD? 						
G-4 Support establishment of benchmarks (e.g., yield, quality, productivity, task hours)	Have you conducted a cycle postmortem?						

G-5 Support conducting TSP usage opinion survey	Advanced (beyond the scope for provisional coaches)
G-6 Support selection and recommendation of data analysis tools	Advanced (beyond the scope for provisional coaches)
G-7 Support reconciling data from multiple sources (e.g., system test defects, production defects, configuration management tools)	 Did the team understand how to combine data from different sources? What difficulties did they encounter? What guidance did you provide?

Appendix B TSP Coach Job Analysis Report

DRAFT DACUM Research Chart for Team Software ProcessSM (TSPSM) Coach

DACUM Panel

Dan Burton Software Engineering Institute

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Noopur Davis Software Engineering Institute

Ellen George PS & J Consulting Services, Inc.

Julia L. Mullaney Software Engineering Institute

William R. Nichols Software Engineering Institute

Marsha Pomeroy-Huff Software Engineering Institute

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Produced by



June 1-2, 2006

DACUM Research Chart for Team Software Process SM (TSP SM) Coach

	Duties	←									_	Tasks ———	
A	Prepare Organization for Initial TSP Usage	A-1 Secure executive sponsor for TSP		Conduct executivnar		A-3 Conduct organizational needs analysis			A-4 Establish pilot success criteria (e.g., benchmark data, ROI)				
В	Provide TSP Domain Training	B-1 Handle course logistics	I	Prepare ourse ery		B-3 Develop supplemental training materials			B-4 Deliver course (e.g., Executive Seminar, Manage Training, PSP for Engineers Introduction to the PSP Prod				
C	Facilitate TSP Team Launch	C-1 Prepare management for launch	C-2 Prepare TSP team lead for launch			C-3 Prepare TSP team for launch			C-4 Arrange for TSP launch logistics			-5 Guide eation of draft enceptual design rior to launch)	
		C-12 Guide TSP team in defining work processes	deve role	loping p plans	Guide TSP team in ping process support and ans					Develogo aching	7	C-15 Guide TSP team in developing top level plan	
		TSP team in reviewing	TSP to	Guide eam in ng alter- plans	(-23 Guide TSP tea eating summary p an					uide TSP team fy and mitigate	
		C-30 Guide tear in providing out brief to technica stakeholders	team C-31 Guide C-32 Train out team in new teams in				in I	C-33 Facilitate the use of launch scripts			C-34 Coordinate cross-team involvement		
D	Guide Personal Process Usage	D-1 Conduct individual data review	indiv stren	Identify vidual gths and cnesses		D-3 Guide individuals with improvement goals			D-4 Guide individuals improvement plan (PIP)			D-5 Guide individuals in presenting their status	
\mathbf{E}	Guide Team Process Usage	E-1 Guide team in assessing quality status	team asses		S	E-3 Gu team in assessin schedul	n adjustn			uide team in dynamic pla ments (e.g., load ing, task management)			
		E-12 Guide team through initial inspections	E-13 Cond check revie	luct kpoint	tea	14 Guide im to nduct cyc project P	cle	tean repla	E-15 Guide team to conduc replanning and relaunch		duct in managing		
F	Guide Management in TSP Usage	F-1 Guide management in assessing quality status	mana asses	7-2 Guide anagement in sessing cocess status		F-3 Guide management in assessing scheduling statu			dynamic (e.g., loa		de management in plan adjustments d balancing, task nent)		
ı		F-10 Guide link to organizational level business go	l-	integrat organiz	ent in TSP TSP		TSP sponso	nsorship im		3 Guide manage- nt in developing and proving teams as ganizational assets			
G	Support Data Analysis and Usage	G-1 Support organizational software develop final analysis	pment	G-2 S defect preven analys	oort G-3 Sup handling			g of ment (e.g.,			Support establish- of benchmarks yield, quality, activity, task hours)		

A-5 Define				A-8				lish		Deliver A-1				-12 Set	
TSP pilot	Identify				tify TSP	pilot projec		oject PSP/T		TSP I		Evaluate		ata	
selection	TSP pilot	TSP	intro-	coac	ch	reward	syst	tem	awarer	ness	TSP pilot		ot pi	rivacy	
criteria	projects	duct	ion plan	cand	lidates				presen	tation proj		ojects		andards	
B-5 Evaluate	B-6					I.				,					
TSP/PSP	Implement														
course	training PIPs	s													
outcomes															
C-6 Plan for	C-7 Provide	C-8	Guide T	SP C-9 Guide TSP t			tean	n in	C-10 (Guide TS	C-11	Guid	e TSP		
departures	conditions		m in selec										team in determining		
from the norm	for TSP tear		ropriate r	_				_	concep		_	develop		_	
nom the norm	to jell	" app	торписе т	Oles	team)			ι,	design	ruui		strat	•	iii.	
C-16 Provide ea		C 17	Guide		C-18 Guid	la taam	С	19 Gu		C-20 C				in	
to senior manage			eam in		reating			SP tean		consoli					
their goals cannot			ng quality		ndividual			lancing		plans	uatiii	g mc	ii v iuua	1 151	
then goals calling	ot be met	plan	ng quanty	<i>'</i>	lans	131		orkloac	_	pians					
C-25 Guide TSI	P C-26 Gui) toors /		Guide TS	Dtoom				CD to am	in	C 2	0 054	oin.	
					in prepar					SP team	111		29 Obt		
team in preparin						_			cting the ement b				nageme		
management	questions	_	ement 1	manag	gement me	eung	I	nanage	ement b	riening		approval for team		or team	
briefing	is likely to	0 ask			1							plan			
D-6 Guide	D-7 Provide	2													
individual in	individual														
fulfilling team	remedial PS	P													
member roles	training														
, , , , , , , , , , , , , , , , , , ,	E-6 Guide		Guide to		E-8 Gui		E-	-9 Gu	ide	E-10 Guide			E-11 Attend		
	team in settin		developin		in preser	nting its				team w			weekl	ly team	
strengths and	improvement	imp	provemen	t	status to		fu	fulfilling TSP		remedial TSI		P	meeti	ngs	
weaknesses	goals	pla	n		manager	nent	te	am ro	les	training					
E-17 Guide	E-18 Guide	e team	E-19 (Guide	uide team in			20 Sh	ow I	E-21 Co	-21 Coor- E-2			ide team	
team in	in achieving	g	develo	ping r	oing new process			ım lead				orre	cting		
managing risks	managemen	nt goals	elemen	ents (e.g., design						in team		ic	identified		
and issues				rds, review checklist)						membership			problems		
F-5 Guide mana	igement F	-6 Gui	de manag	emen	t F-7 (Guide		F-8	Guide				F-9 Guide		
in identifying	•	develo	_			management in							anagement in data		
organizational p		rganiza			communicating			_					rivacy practices		
			ment plan	1		successes		-		rding success		privacj practices		1 5	
								ı	<u> </u>		ı				
G-5 Support	G-6 Suppor	t select	ion and	G-7	1 7 Support	reconci	ling	data f	rom						
conducting TSP	recommenda				ltiple sou		_								
usage opinion	analysis tool		uata		•		•		J31						
survey															
Bul VCy				COL	iriguranoi	i manage	IIICI	11 1001	<i>5)</i>						

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DACUM Research Chart for Team Software Process $^{\!SM}$ (TSP $^{\!SM}$) Coach

	Duties	←			Tasks				
Н	Support Organizational TSP Infrastructur	H-1 Support organizational process asset library (PAL)	H-2 Develor TSP coache		H-3 Develop PSP instructors	PS	4 Plan P/TSP ning		H-5 Couple TSP to existing improvement initiatives
		H-6 Help determine budget for TSP implementation	H-7 Develorganization rollout plan	nal	H-8 Market TSI internally (e.g., p consulting)	•			
I	Perform Administrative Activities	I-1 Report TSP/PSP data to SEI	I-2 Maintai SEI authorizatio		I-3 Maintain SEO Partner license	PS	Maintain P Develope tification	er	I-5 Support candidate coaches and instructors
		I-6 Report defects in SEI materials to SEI	I-7 Manage TSP vendor relationship and contract	S					
J	Pursue Professional Development	J-1 Interact with external commun PSP, TSP, softwar practitioners)	nity (e.g.,	clo	Develop TSP ga osures (e.g., ototype, try new ngs, build new too		_	ge (e tric	e.g., tools, es, practices,
		J-4 Review professional publications	J-5 Review technical documentation		J-6 Publish professional articles	to	oscribe vsgroups	TS an	8 Participate in SP mentoring ad apprentice ograms
		J-9 Obtain professional certifications (e.g., PMI, ASQ)	J-10 Review related discipline	es	J-11 Participate professional organizations an societies			nal	pate in training (e.g., , conferences)
		J-13 Deliver professional presentations							

Tools, Equipment, Supplies and Materials	Worker Behaviors	
TSP tools:		
SEI tools	Reliable	Courageous
Solonsys	Flexible	Truth teller
Dashboard	Patient	Self-Confident
LOC counting tools	Positive	Exemplary
Defects tracking tools	Trustworthy	Quick learner
Project mgmt tools	Credible	Prescient
Presentation tools	Diplomatic	Tactful
Analysis tools (e.g. EXCEL, Minitab, SAS)	Good listener	Humble
Design tools (e.g. Rationale)	Resourceful	Analytical
Microsoft Office (e.g. Access, Word, Excel, PowerPoint)	Principled	Motivational
	Disciplined	Convincing
	Professional	Confidant
	Knowledgeable	Informed

General Knowledge and Skills

PSP/TSP

People skills

Mgmt skills

Ability to pick up domain knowledge quickly

Software design skills

Process definition skills

Ability to see big picture (trees & forest)

Technical skills:

Software development

Testing

Project mgmt

Data analysis

Quality mgmt

Systems analysis

Presentation skills

Facilitation skills

Negotiation skills

Organization skills

Process improvement

Ability to follow a process

Logistics

Consulting skills

Analytical skills

Knowledge of PSP tools & analysis tools

Training skills

Communication skills

Time management skills

Problem solving

Change management

Meeting management

Process technology knowledge

CMMI

Agile method

LEAN

Six Sigma

Function points

Conflict resolution

Using historical data

Recognizing individual improvement

Staying at appropriate level of detail

Coaching skills

Data privacy/ability to protect

Motivate high performance

Handling difficult people

Future Trends and Concerns

Applying TSP to non software domains

Scalability:

Scaling process to fit large teams

Increased demand for coaching services (demand

more than supply)

Need to address coaching progression (levels)

Ability to maintain coaching quality

SEI ability to provide new materials (e.g., courses)

Processes, course materials, and examples based on

older research in the technology

More TSP tools need to be available

New TSP licensing strategy to amplify transition

Extending TSP into college curriculum

Broader issue of TSPm & TSPd

Acronyms

CM Configuration Management

CMM Capability Maturity Model

CMMI Capability Maturity Model Integration

JIT Just In Time

PAL Process Asset Library

PIP Process Improvement Proposal

PM Postmortem

PSP Personal Software Process

ROI Return on Investment

SEI Software Engineering Institute

SEPG Software Engineering Process Group

TSP Team Software Process

Appendix C Forms



Provisional Coach Mentoring Program Application – Form MPA

SEI-Certified TSP Coach Mentoring Program

Personal Information (R	Please use the exact name th	nat appears on your	identification documents.)
Last Name/Family Name	First Name (Given Nar	ne)	Middle Name(s)
Primary Language		Secondary Languag	e
Job/Position			
Employer			
Employer Address			Employer Phone Number
Personal Contact Inform	nation		
Street Address (Home)			
City		State or Country	Zip Code
Mailing Address (if different)			
City		State or Country	Zip Code
Daytime Telephone Number		Evening Telephone	Number
Email Address		Fax Number	
Request for Mentor Ass			
Visit the following website to fin http://www.sei.cmu.edu/certifica		TSP Mentor Coa	aches:
Please note that mentors are lir given time.	nited to the number of p	provisional coacl	nes that they can mentor at any
Do you need help from SEI to fi Coach?	nd an SEI-Certified TS	P Mentor	☐ Yes ☐ No
If yes, who have you contact	ted unsuccessfully as a	possible mento	r?
If no, who will be your SEI-C	ertified TSP Mentor Co	ach?	



Ond	Once a mentoring coach has been established, the following forms must be submitted to the SEI:					
	Provisional Coach Developmental Needs Self-Assessment					
	Mentoring Goals					
	Mentoring Action Plan					

Statement of Accuracy

I certify that all of the information included in my application packet is true, complete, and accurate. I understand that all components of my application are subject to verification, and I give my permission for any person or entity to provide the Software Engineering Institute, Carnegie Mellon University, with information relevant to such verification. I understand that all components of my application packet become the property of the Software Engineering Institute and that they will not be returned to me or duplicated for me. I understand that the application fee is not refundable.

Signature Date

Submission Instructions

Please mail your application with application fee to:

Software Engineering Institute Carnegie Mellon University Attn: Certifications – 2300A 4500 Fifth Avenue Pittsburgh, PA 15213-2612

Direct any questions to the SEI Certification Manager:

Phone: 412-268-5800 or Email: certification-info@sei.cmu.edu



Provisional Coach Developmental Needs Self-Assessment - Form DNSA

SEI-Certified TSP Coach Mentoring Program

Provisional Coach's Name: Mentor's Name: Assessment Date:					
One of the objectives of an SEI-Certified TSP Mentor Coach is to provide guidance based on the provisional coach's learning and development needs and objectives. To accomplish this, the provisional coach must provide input about personal development goals and work with the mentor to identify the developmental goals and desired results of the mentoring process. The Provisional Coach Developmental Needs Self-Assessment is intended to facilitate this process. The provisional coach should complete this assessment prior to the initial meeting with the mentor to provide a starting point for identifying developmental goals and creating an individual mentoring action plan (MAP).					
Briefly describe your task and ro	le assignment on your TSP teams.				
Briefly describe your organization	n and expected role as a TSP coach.				
Briefly describe your organization					



List any papers or presentations you have done and describe any professional activities you have participated in.
Why do you want to be a TSP coach?
What are your goals as a TSP coach?



For statement numbers 1 through 38 below, please check the box that best describes your current level of performance in each of the following areas.						
Communication	Needs Significant Improvement	Could Benefit from Development	Capable and Effective	Role Model		
1. I listen before speaking.						
I demonstrate persuasiveness in my objectives.						
3. When needed, I clarify statements to gain better understanding.						
4. I am able to convey my priorities with a sense of urgency and importance.						
5. I speak clearly, fluently, and in a compelling manner.						
I consider others' points of view when responding.						
7. I am effective in gaining commitment by persuasion.						
8. I am open and approachable. 9. I am able to communicate the vision and						
need for using TSP. 10. I am effective in communicating TSP ideas and concepts.						
11. I am open to suggestions from others. 12. I am able to bring clarity to discussions.						
13. I am able to give honest feedback to others.		ă				
Action	Needs Significant Improvement	Could Benefit from Development	Capable and Effective	Role Model		
14. I take corrective action when necessary.	Improvement	Development	Lifective			
15. I usually make effective decisions.						
16. I can positively motivate and support others in their development.						
Flexibility	Needs Significant Improvement	Could Benefit from Development	Capable and Effective	Role Model		
17. I am creative in finding ways to get things done.						
18. I can adapt to meet the needs of a frequently changing and uncertain environment						
19. I am effective in incorporating new ideas.	H					
20. I readily implement proposed changes. 21. I willingly incorporate feedback from						



Analytical	Needs Significant Improvement	Could Benefit from Development	Capable and Effective	Role Model
22. I am able to analyze data and develop effective presentations and explanations.				
23. I am able to reduce problems to their root causes.				
24. I understand and use appropriate methods for analyzing different sources of data.				
25. I am able to organize and compile data from multiple sources.				
26. I am able to identify opportunities for improvement.				
improvement.				
Problem Solving	Needs Significant Improvement	Could Benefit from Development	Capable and Effective	Role Model
27. I can identify potential problems and develop appropriate solutions.				
28. I try to solve problems at the root level instead of just addressing the symptoms.				
Performance	Needs Significant Improvement	Could Benefit from Development	Capable and Effective	Role Model
29. I work with a high standard of quality. 30. I am able to prioritize work in order to meet commitments and help teams and individuals to obtain their goals.				
31. I have high personal standards. 32. I follow up on the ideas of other people.				
Other	Needs	Could Benefit	Capable	Role
	Significant Improvement	from Development	and Effective	Model
33. I am able to influence and persuade others.				
34. I am able to facilitate teams in achieving results.				
35. I am effective in planning (re)launches. 36. I am attentive to the needs of others.				
37. I am able to show individuals how their				
role supports the team. 38. I understand how change affects individuals and teams.				



Of the following TSP coaching areas, which topics are your top priorities for improvement during
the mentoring process? Please check all that apply. (See Appendix B of the TSP Mentor Coach
Guidebook for more details regarding the topics.)
Prepare organizations for initial TSP usage
Provide TSP domain
Frovide 13F domain
Guide personal process uses
Guide team process uses
Guide management in TSP usage
Support data analysis and usage
Strengths: Please describe your coaching strengths.
Opportunities for development: Please describe areas which you would like to work on so as to
become a better coach.



Mentoring Goals - Form MG

SEI-Certified TSP Coach Mentoring Program

Mentor's Name:					
Date:					
Mentoring Process Phase:	Preparation/Prescriptive	☐ Persuasive			
	Enabling/Collaborative	Closure/Confirmation			
Goals should always be: S – Specific	c, M – Measurable, A – Achieva	ble, R – Realistic, T – Time-bound			
 Goal/Objective – Briefly describe each goal/objective and when the goal/objective should be met or accomplished. 					
2. Measurement – How will the	goal/objective be evaluated?				
 Importance – Rank the goal Essential – required for T Important – helpful for TS Desirable – asset for TSF 	SP Coaching	irable, as follows:			
Goals should be established and agree first steps in creating a mentoring relative provisional coach's developmental network progresses through the TSP mentoring	itionship. The goals and objectiveds, and should be reviewed a	ves should be in line with the			
1 st Goal / Objective					
Description:					
Measurement:					
	_				
Measurement: Importance: Essential	☐ Important	☐ Desirable			
Importance:	☐ Important	☐ Desirable			
Importance:	☐ Important	☐ Desirable			
Importance: Essential 2 nd Goal / Objective Description:	☐ Important	☐ Desirable			
Importance:	☐ Important	☐ Desirable			
Importance: Essential 2 nd Goal / Objective Description:	☐ Important	☐ Desirable			



3 rd Goal / Obj	ective		
Description:			
Measurement:			
Importance:	☐ Essential	☐ Important	☐ Desirable
4 th Goal / Obj	activa		
Description:	ective		
Description.			
Measurement:			
Wododiomoni.	•		
Importance:	☐ Essential	☐ Important	☐ Desirable
•			-
Signed Agr			
	ngree to work towards a	ccomplishing the aforementione	d goals/objectives of our mentoring
relationship.			
Mentor Coach Sig	gnature		Date
Provisional Coach	n Signature		Date



Mentoring Action Plan - Form MAP

SEI-Certified TSP Coach Mentoring Program

Provisional Coach Information

Last Name/Family Name	First Name (Given Name)	Middle Name(s)	
Daytime Telephone Number	Evening Te	lephone Number	
Email Address	Mobile Pho	ne Number	
Organization Name	Organizatio	n's Location	

Mentor Coach Information

Last Name/Family Name	First Name (Given Name)	Middle Name(s)	
Daytime Telephone Number	Evening Telephone Number		
Email Address	Mobile Phone Number		
Organization Name	Organizatio	n's Location	

Action Plan

Time Frame (Week #)	Objective and Task(s)	Goal / Objective Number	Mentor Physical Location (Remote or On- Site)

Time Frame (Week #)	Objective and Task(s)	Goal / Objective Number	Mentor Physical Location (Remote or On- Site)		
Signed Agreement					
We agree that, to the best of our ability, we will work towards the aforementioned objectives and time frame in order to accomplish the agreed-to goals of our mentoring relationship.					
Mentor Coach	Signature	Pate			
Provisional Co	pach Signature	Pate			



Mentoring Artifact Evaluation - Form MAE

SEI-Certified TSP Coach Mentoring Program Provisional Coach's Name: Mentor's Name: **Evaluation Date:** Select TSP coaching area(s) being evaluated. See Appendix B of the TSP Mentor Coach Guidebook for more details regarding the topics. Prepare organizations for initial TSP usage Provide TSP domain training Facilitate TSP team launch Guide personal process usage Guide team process usage Guide management in TSP usage Support data analysis and usage Select artifacts included in evaluation. (Re)Launch preparations Meeting 1 presentation material Previous cycle or project PM data Pre (re)launch meeting agendas and presentations PSP/TSP training records for all relevant (re)launch stakeholders Other (Re)Launch output material Team consolidated plan Individual plans Meeting 9 presentation(s) Risk analysis Other Weekly team meeting ☐ Agenda Meeting minutes Team consolidated plan and actual Individual plan and actual Manager role reports Other Management STATUS meeting Agenda Meeting minutes ☐ STATUS report Team consolidated plan and actual (source of report) Individual plan and actual (source of team's consolidated plan) Other Checkpoint Checkpoint report Checkpoint team member data review Team consolidated plan and actual (source of report) Individual plan and actual (source of team's consolidated plan) Other



Cycle or project postmortem
PM report
Team consolidated plan and actual (source of report)
Individual plan and actual (source of team's consolidated plan)
Other
Based on the TSP coaching area(s) being evaluated and the artifacts under review, list any
questions or comments you have for the provisional coach.
questions of comments you have for the provisional coucin
What could the provisional coach do next time in order to improve and further reach his/her
stated goals?



What information might have been missed?
What areas of the TSP BOK should the provisional coach review in preparation of the next TSP activity?
Other observations and questions for the provisional coach:
Does it appear that the provisional coach is guiding the team to meet management's goal(s)? Yes No Unclear
Why?
If the team is off-track, is the provisional coach taking appropriate action(s)? Yes No Unclear N/A
Why?
Do these artifacts satisfy the associated TSP cycle requirements for a TSP coach? Yes No If no, explain:



(Re)Launch Observation Evaluation - Form LOE

Provisional Coach's Name:										
Mentor's Name:										
TSP Team's Name:										
Project Name:										
Company/Organization:										
Observation Dates:										
Coach Performance Evaluations for the (Re)Launch Meetings – Consider each characteristic on the left. For each meeting enter an X for each characteristic that was properly handled in the box that corresponds to the meeting number. If there was a problem, enter a number instead of an X (in sequence, as if you were adding a footnote). In the comments section, reference any numbers that you used in the table and explain the problem. Meeting Number 1 2 3 4 5 6 7 8 9 PM										
Mechanics: agenda, roles, sumr	nary									
Followed script steps										
Maintained effective communication	ition									
Effectively handled issues										
Kept team focused on meeting objective										
Guided the team to do the key to	isks									
Comments:										
Meeting 1										
Evaluation Topics									Yes	No
Did management explain the imp	oortanc <u>e</u>	of the	proje	ect?						
Were management's goals for the team clearly communicated?										
Were team questions encouraged and answered?										
Was the team satisfied with the				141 4						
Was the coach effective in guidi meeting?	ng mana	igeme	nt and	the to	eam ir	ı a suc	ccessi	'ul		
Comments:										



Meeting 2	
Evaluation	

	Yes	No
Did all team members participate in defining the team's goals?		
Did all team members agree with the goals that were finally selected?		
Did all team members select their own roles and alternate roles?		
Were the team members and team leader satisfied with the final role assignments?		
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		
Meeting 3		
Evaluation Topics	Yes	No
Did the team agree on the product's conceptual design and overall size estimates?		
Did all team members participate in producing the team's development strategy?		Ī
Did all team members participate in producing the team's development process?		
Did the team identify and assign responsibility for other additional team processes?		
Was the team satisfied with the meeting outcome?		
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		
Meeting 4	V	
Evaluation Topics	Yes	No
Evaluation Topics Did all team members participate in identifying the project's tasks?	Yes	No
Evaluation Topics Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task?	Yes	No 🗆
Evaluation Topics Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours?	Yes	No III
Evaluation Topics Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task?	Yes	No 🗆
Evaluation Topics Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team	Yes	No D
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan?	Yes	No D
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan? Was the coach effective in guiding the team to a successful meeting outcome?	Yes	No D
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan? Was the coach effective in guiding the team to a successful meeting outcome?	Yes	No
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan? Was the coach effective in guiding the team to a successful meeting outcome?	Yes	No D
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan? Was the coach effective in guiding the team to a successful meeting outcome?	Yes	No D
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan? Was the coach effective in guiding the team to a successful meeting outcome?	Yes	No D
Did all team members participate in identifying the project's tasks? Did all team members participate in estimating the effort required for each task? Did all team members participate in estimating the team's weekly task hours? Were the team members and team leader satisfied with the resulting overall team plan? Was the coach effective in guiding the team to a successful meeting outcome?	Yes	No D



Meeting 5 Evaluation Topics		
Did the team define and amore an anomalia act of meanwhile mulifum and a	Yes	
Did the team define and agree on an aggressive set of measurable quality goals?		
Did the team use available data to establish realistic defect injection rates?		
Did the team use personal and other available data to establish realistic yield values?		
Did the team review and agree on the final quality plan?		
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		
Meeting 6	N/	
Evaluation Topics	Yes	
Did all team members agree with the tasks they were assigned to do?		
Did all team members produce their own detailed personal plans?		
Did the entire team participate in producing a balanced team plan?		
Were the team members and team leader satisfied with the final consolidated team		
plan?		
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		
		_
Meeting 7		_
Evaluation Topics	Yes	
Did the team leader lead the team in identifying a comprehensive set of project risks?		
Did all team members participate in identifying and evaluating these risks?		
Did all team members participate in identifying and evaluating these risks? Was responsibility for each significant risk assigned to a team member to track?		
Did all team members participate in identifying and evaluating these risks? Was responsibility for each significant risk assigned to a team member to track? Were mitigation actions defined for the key risks?		
Did the team leader lead the team in identifying a comprehensive set of project risks? Did all team members participate in identifying and evaluating these risks? Was responsibility for each significant risk assigned to a team member to track? Were mitigation actions defined for the key risks? Was the team satisfied with the meeting outcome? Was the coach effective in guiding the team to a successful meeting outcome?		



Meeting	8
---------	---

Evaluation Topics	Yes	No
Did the team leader define the format and content of the meeting 9 presentation?		
Did the team leader obtain team member input in defining this format and content?		
Did all team members participate in producing and reviewing the presentation?		
Were the team members and team leader satisfied with the final presentation?		
Did the provisional coach prepare a coaching plan and review it with the team?		
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		
Meeting 9 Evaluation Topics	Yes	No
·	I es	NO
Did senior management attend meeting 9?	H	Η
Did at least some of the team members participate in presenting the plan?		
Did management ask probing questions about the team? Did some team members participate in answering management's questions?	H	片
Where the team's plan did not meet management's goals, did the team prepare	H	
alternative plans?		
Where management asked for other alternatives, did the team take an action to develop alternatives rather than guess?		
Did the provisional coach present and discuss the coaching plan?		П
Were management and the team satisfied with the meeting outcome?		Ħ
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		
(Re)Launch PM		
Evaluation Topics	Yes	No
Did the planning manager review plan status and identify and assign open items?		
Did the team discuss the (re)launch process and participate in considering possible PIPs?		
Did the coach address any open issues?		
Was the coach effective in guiding the team to a successful meeting outcome?		
Comments:		



(Re)Launch Observation Summary - Form LOS

Provisional Coach's Name:		
Mentor's Name:		
TSP Team's Name:		
Project Name:		
Company/Organization:		
Observation Dates:		
(Re)Launch Preparation Evaluation		
Evaluation Topics	Yes	No
Had all development team members completed PSP training?	Щ	Щ
Had all other team members completed team member training?		Ц
Had the team leader and other involved managers attended the <i>Leading a</i> Development Team course?	ш	
Was senior management properly briefed on their role in the launch?		П
Did the provisional coach adequately prepare the team and team leader for the	H	
(re)launch?		
Did the provisional coach arrange for adequate (re)launch meeting facilities?		
Did the provisional coach review (re)launch preparation progress with mentor before		
the (re)launch?		
Comments:		
(Re)Launch Evaluation (attach (Re)Launch Observation Evaluation form)		
(Re)Launch Evaluation (attach (Re)Launch Observation Evaluation form) Evaluation Topics	Yes	No
Evaluation Topics	Yes	No
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared?	Yes	No
Evaluation Topics	Yes	No
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team?	Yes	No 🗆 🗆
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9?	Yes	No IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team?	Yes	No
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team? Was the provisional coach effective in handling meeting dynamics?	Yes	No IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team? Was the provisional coach effective in handling meeting dynamics? Was the provisional coach effective in guiding the (re)launch to a reasonable	Yes	No D D D
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team? Was the provisional coach effective in handling meeting dynamics? Was the provisional coach effective in guiding the (re)launch to a reasonable outcome?	Yes	No D
Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team? Was the provisional coach effective in handling meeting dynamics? Was the provisional coach effective in guiding the (re)launch to a reasonable	Yes	No D D D D
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Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team? Was the provisional coach effective in handling meeting dynamics? Was the provisional coach effective in guiding the (re)launch to a reasonable outcome?	Yes	No D
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Evaluation Topics Did management attend meetings 1 and 9, and were they prepared? Did management communicate their goals and the project's importance to the team? Did management thoughtfully evaluate the team's plan in meeting 9? Did the team make a competent plan and alternative plans if needed? Were management and the team satisfied with the (re)launch outcome? Did the provisional coach produce a coaching plan and review it with the team? Was the provisional coach effective in handling meeting dynamics? Was the provisional coach effective in guiding the (re)launch to a reasonable outcome?	Yes	No D



TSP Data Submission Form - Form DSF

SEI-Certified TSP Coach and TSP Mentor Coach Program

Event Information	
TSP coach's name:	
Submission date:	
TSP Team's Name:	
Project name:	
Project type:	
SEI Partner name:	
Team lead's name:	
Team lead's phone no.:	
Team lead's email:	
Submitter Information	
Name:	
Phone No.:	
Email address:	
Any additional notes:	
Select event and associated arti-	facts (Please use one form for each TSP cycle event.)
(Re)Launch preparations	
Meeting 1 presentation m	
Previous cycle or project	
Pre (re)launch meeting ag	gendas and presentations for all relevant (re)launch stakeholders
Questionnaires	Tot all relevant (re)laution stakeholders
Other (please describe) _	
(Re)Launch output material	
Launch or Relaunch	
Team consolidated plan	
Individual plans	
Individual plans Meeting 9 presentation(s)	
☐ Individual plans☐ Meeting 9 presentation(s)☐ Risk analysis	
☐ Individual plans ☐ Meeting 9 presentation(s) ☐ Risk analysis ☐ Other (please describe)	
☐ Individual plans☐ Meeting 9 presentation(s)☐ Risk analysis	
Individual plans Meeting 9 presentation(s) Risk analysis Other (please describe) Weekly team meeting Agenda Meeting minutes	
Individual plans Meeting 9 presentation(s) Risk analysis Other (please describe) Weekly team meeting Agenda Meeting minutes Team consolidated plan a	and actual
Individual plans Meeting 9 presentation(s) Risk analysis Other (please describe) Weekly team meeting Agenda Meeting minutes Team consolidated plan a Individual plan and actual	and actual
Individual plans Meeting 9 presentation(s) Risk analysis Other (please describe) Weekly team meeting Agenda Meeting minutes Team consolidated plan a Individual plan and actual Manager role reports	and actual
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Individual plans Meeting 9 presentation(s) Risk analysis Other (please describe) Weekly team meeting Agenda Meeting minutes Team consolidated plan a Individual plan and actual Manager role reports Other (please describe) Management STATUS meeting	and actual

Individual plan and actual (source of team's consolidated plan)
Other (please describe)
☐ Checkpoint ☐ Checkpoint report
☐ Checkpoint report ☐ Checkpoint team member data review
☐ Team consolidated plan and actual (source of report)
Individual plan and actual (source of team's consolidated plan)
Other (please describe)
☐ Cycle or project postmortem
Phase Complete or Project Complete
PM report
Team consolidated plan and actual (source of report)
☐ Individual plan and actual (source of team's consolidated plan)☐ Other (please describe)
U Other (piease describe)
File names associated with this data submission:
Additional information needed to correctly interpret data submitted:
Additional information needed to correctly interpret data submitted.

Please email this form and your zipped files to: tsp-data@sei.cmu.edu.

Or mail this form and CD with data to: Software Engineering Institute Carnegie Mellon University Attn: TSP Team 4500 Fifth Avenue Pittsburgh, PA 15213-2612



Final Assessment Report - Form FAR

Provisional Coach Information (Please use the exact name that appears on your identification documents.)						
Last Name/Family Name	First Name (Given Na	ne) Middle Na	ime(s)			
Daytime Telephone Number		Email Address				
Mentor Coach Info	mation					
Last Name/Family Name	First Name (Given Na	ne) Middle Na	ime(s)			
·	•	,				
Daytime Telephone Number		Email Address				
Supporting Data						
	successfully demonstrate th nrough g of Appendix B, TSF					
than one of any of the give	event below is required durir en events, please list both th mentoring evaluation forms	e first and last in which yo	u provided mentoring.			
Please provide the following to the provisional coach:	ng information regarding the	launches in which you pro	ovided mentoring support			
TSP Team's Name	Team Lead's Name	Date of Data Submission to the SEI	Mentoring Artifact Evaluation Date			
Please provide the following provided mentoring support	ng information regarding the	Provisional Coach's relau	nches in which you			
TSP Team's Name	Team Lead's Name	Date of Data Submission to the SEI	Mentoring Artifact Evaluation Date			

All data must be submitted to the SEI using the TSP Data Submission Form



Please provide the following information regarding the checkpoints in which you provided mentoring support to the provisional coach.:

SP Team's Name	Team Lead's Name	Date of Data Submission to the SEI	Mentoring Artifact Evaluation Date
	ing information regarding the ort to the provisional coach*		ms in which you
SP Team's Name	Team Lead's Name	Date of Data Submission to the SEI	Mentoring Artifact Evaluation Date
Recommendation			
oaco indicato vour coin	ion about the provisional co	ach becoming an SEI Cortif	ind TSD Coach:
	siastically recommend this a		.54 101 004011.
	nmend this applicant.	ppiiodiit.	
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eservations about this n	rovisional coach:		
Reservations about this p	provisional coach:		
Reservations about this p	provisional coach:		
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All data must be submitted to the SEI using the TSP Data Submission Form



Statement of Accuracy

I certify that all of the information included in this report packet is true, complete, and accurate. I understand that submitting false data or making inaccurate claims will result in the termination of my SEI-Certified TSP Mentor Coach certification, without refund. I also understand that all components of this report are subject to verification, and I give my permission for any person or entity to provide the Software Engineering Institute, Carnegie Mellon University, with information relevant to such verification. I understand that all components of this report become the property of the Software Engineering Institute and that they will not be returned to me or duplicated for me.

Mentor Coach Signature	Date	

Submission Instructions

Please place the final assessment report, any supplementary pages, and your business card in a sealed envelope and place your signature across the seal. Mail the envelope directly to:

Software Engineering Institute Carnegie Mellon University Attn: Certifications – 2300A 4500 Fifth Avenue Pittsburgh, PA 15213-2612

Direct any questions to the SEI Certification Manager: Phone: 412-268-5800 or Email: certification-info@sei.cmu.edu



Mentor Coach Application - Form MCA

SEI-Certified TSP Coach Mentoring Program

Personal Informat	ion (Please use the exact name th	at appears on your identificati	ion documents.)
Last Name/Family Name	First Name (given Nam	ne) Middle N	ame(s)
Primary Language		Secondary Language	
Job/Position			
JOD/F OSITION			
Employer			
Employer Address			Employer Phone Number
Contact Information	on		
Street Address (Home)			
City		State or Country	Zip Code
Mailing Address (if different)			
City	:	State or Country	Zip Code
Daytime Telephone Number		Evening Telephone Number	
Email Address		Fax Number	
Linaii Addiess		T dx Number	
Supporting Data			
Please provide the comp Institute courses:	letion date and instructor(s) n	ame for the following Sof	tware Engineering
Course Title	Instructor(s) Name		Date of Completion
PSP for Engineers I			
PSP for Engineers II			

PSP Fundamentals
PSP Advanced
TSP Coach Training
PSP Instructor Training

Certification

Please provide the date awarded and the certificate number for the following SEI certifications:

Certificate Number

Date Awarded

SEI-Certified PSP Developer		
SEI-Certified TSP Coach		
courses that you have taught. (downloaded from https://partne	t date(s) and number of participants fo NOTE: This will be verified through th er-resources.sei.cmu.edu/	e course attendee list which can be
PSP/TSP Course	Date(s)	Number of Participants
PSP for Engineers I		
PSP for Engineers II		
PSP Fundamentals		
PSP Advanced		
Introduction to Personal Proces	SS	
TSP Team Member Training		
TSP Executive Strategy Semin	ar	
Leading a Development Team		
Managing TSP Teams		
PSP Instructor Training		
TSP Coach Training		

Are you currently an SEI-Authorized PSP Instructor? ☐ Yes ☐ No
If your authorization has lapsed, please contact the SEI to make arrangement to renew your
authorization, as this is a prerequisite to becoming an SEI-Certified TSP Mentor Coach.

Please provide the following information regarding the last time you launched or relaunched a team, for the last three TSP teams you coached::

TSP Team's Name	Team Lead's Name	Date of Data Submission to the SEI

Please provide the following information regarding the last four to six TSP teams in which you conducted a (re)launch, checkpoint, and PM. (Note: The launch or relaunch to postmortem cycles must total at least 52 team-weeks of coaching experience.).

TSP Team's Name	Team Lead's Name	Date Data Submitted to the SEI

All data must be submitted to the SEI using the TSP Data Submission Form



Please provide the following information regarding the team leader(s) who will be providing a letter of recommendation. (NOTE: The team leaders must use the approved Mentor Recommendation - Form MR and follow its submission instructions. A letter of recommendation must be received from each of the aforementioned TSP teams in which you conducted a (re)launch, checkpoint and PM):

TSP Team Leader's Name	Email	Phone Number

In addition to the team leader recommendations listed above, a letter of recommendation must be received by at least 50% of the team members associated with the aforementioned TSP teams in which you conducted a (re)launch, checkpoint and PM.

Statement of Accuracy

I certify that all of the information included in my application packet is true, complete, and accurate. I understand that all components of my application are subject to verification, and I give my permission for any person or entity to provide the Software Engineering Institute, Carnegie Mellon University, with information relevant to such verification. I understand that all components of my application packet become the property of the Software Engineering Institute and that they will not be returned to me or duplicated for me. I understand that the application fee is not refundable.

Signature Date

Submission Instructions

Please mail your application along with your application fee to: Software Engineering Institute Carnegie Mellon University Attn: Certifications – 2300A 4500 Fifth Avenue Pittsburgh, PA 15213-2612

Direct any questions to the SEI Certification Manager:

Phone: 412-268-5800 or Email: certification-info@sei.cmu.edu



Mentor Recommendation - Form MR

Applicant's Section		
Last Name/Family Name	First Name (Given Name)	Middle Name(s)
Recommender's Secti	on	
Name of Recommender	Title	
Company Name	Telephone No	umber (include country code)
Street Address		
City	State or Cour	ntry Zip Code
Email Address		
How long have you known th	e applicant, and in what capacity?	
As a team lead: How many TSP checkpoints How many TSP cycle or project	coach in the role of a team lead or a has the applicant performed for you ect postmortems has the applicant fa has the applicant facilitated for you	? acilitated for you?
Evaluation of Applica	nt	
	ording to the following scale. Choos paces below or attach a separate sh	e "No Basis for Evaluation" if you cannot eet for additional comments.
The Applicant ensures that		Strongly Disagree Disagree Agree Strongly Aaree No Basis for
The process is followed		
Everyone is involved		
Everyone contributes to ev		
There is complete commun leader, management, and o	lication among team members, teather relevant stakeholders	am



The Applicant	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis for Evaluation
Is available for consultation as needed					
Respects others and supports their individual development		$\overline{\sqcap}$	$\overline{\Box}$		
Works effectively with teams		Ī	百		
Effectively provides the required skills, discipline, insight, and	一一	Ħ	一	一	一一
outside perspective that teams and individuals need to be			_	_	_
successful, using tailored approaches to meet the needs of the					
team and its members					
Follows up on suggestions of team members					
Is open to constructive feedback					
Is effective in communicating ideas and concepts					
Is effective in providing honest feedback to the team and its					
members					
Maintains a high standard of work					
Works diligently toward the completion of goals					
Is open and approachable					
Effectively analyzes and applies data					
Is trustworthy					
Is respected by other team members					
Is effective in building high performance teams					
Has a high work ethic					
Looks for innovative ways to solve problems					
Communicates effectively with individuals outside of the team					
Brings clarity to discussions					
Provides assistance and coaching for personal data collection					
Provides guidance and coaching for personal data analysis					
Provides coaching guidance to role managers					
Sets and reinforces high standards for team members					
Sets an example other TSP coaches should follow					
-					
The Applicant acts as the process expert for details of the	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis for Evaluation
(Re)Launch process					
Day-to-day work processes					
Role manager processes					
Weekly reporting processes					
Project /phase postmortem process					
Checkpoint process		Ī	$\overline{\Box}$		



As a facilitator, the Applicant understands the	Strongly Disagree	Disagree	Agree	Strongly Aaree	No Basis for Evaluation
Team life cycle					
Group working styles					
Communication types					
Recommendation Please indicate your opinion about the applicant becoming an SEI-Certified I enthusiastically recommend this applicant. I recommend this applicant.	HTSP I	Mento	or Coa	ach:	
I recommend this applicant with some reservations. I do not recommend this applicant. Reservations about this applicant:					
Signature					
Recommender's Signature Da	te				

Please place your recommendation form, any supplementary pages, and your business card in a sealed envelope and place your signature across the seal. Either return the envelope to the applicant or mail it directly to:

Software Engineering Institute Carnegie Mellon University Attn: Certifications – 2300A 4500 Fifth Avenue Pittsburgh, PA 15213-2612

Direct any questions to the SEI Certification Manager:

Phone: 412-268-5800

Email: .certification-info@sei.cmu.edu.

Thank you for taking the time to respond. The SEI-Certified TSP Coach Mentoring Program believes that recommendations are among the most valuable data in the application review phase. We sincerely appreciate your help.



Provisional Coach Mentoring Evaluation – Form PCME

Your name:		
Mentor's name:		
Date mentoring started:		
Date mentoring ended:		
Today's date:		
Phone:		
Email:		
Mentor Program		
	n the SEI-Certified TSP Coach Mentoring Progr or attach a separate sheet for additional comme	
Applicant		Strongly Disagree Disagree Agree Strongly
This program helped me to be	a more successful TSP coach.	
The required activities were ap		
Overall, I believe that participatime.	ting in this program was a good use of my	
What additional support wou	ld you suggest be provided to future provisi	onal coaches?



Please list any mentor – provisional coach activities you recommend adding or dewhy.	eleting, ar	nd
Would you recommend that others participate in this program as a mentor or provisional coach? If you answered no, please explain.	Yes	No

Mentor

Please rate your mentor according to the following scale. Use the spaces below or attach a separate sheet for additional comments.

	Strongly Disagree	Disagree	Agree	Strongly Agree
My mentor was available for consultation as needed.				
My mentor was willing to share best practices.				
My mentor assisted me in successfully working through a TSP cycle as a				
TSP coach.				
I believe that consulting my mentor was a good use of my time.				
My mentor regularly contacts me.				
I felt comfortable talking to my mentor about concerns or problems.				
My mentor treated me in a courteous and professional manner.				
My mentor was supportive of my individual needs.				
My mentor used active listening skills.				
My mentor appeared knowledgeable.				
My mentor knew where to find information when necessary.				



My Mentor	Strongly Disagree	Disagree	Agree	Strongly Agree
Comes prepared for mentoring meetings				
Is prompt for mentoring meetings				
Is courteous and professional				
Promptly responds to messages				
Communicates effectively				
Fully utilizes time with me				
Suggests ideas for discussion and individual growth	Щ	Ц	Щ	Ш
Actively participates in mentoring meetings				
The positive attributes of my mentor are:				
Areas in which my mentor could improve are:				

Please email completed evaluation forms to: _tspeval@sei.cmu.edu_

Or send completed form to: Software Engineering Institute Carnegie Mellon University Attn: TSP Administrator 4500 Fifth Avenue Pittsburgh, PA 15213-2612

Direct any questions to the SEI Certification Manager:

Phone: 412-268-5800

Email: certification-info@lists.sei.cmu.edu



Mentor Coach's Mentoring Program Evaluation – Form MPE

SEI-Certified TSP Coach Mentoring Program Your Name: Today's date: Phone: **Mentor Program Evaluation** What is your general assessment of the mentoring program? ☐ Very Successful ☐ Successful ☐ Moderately Successful ☐ Unsuccessful Did you receive adequate assistance from the SEI? ☐ Yes ☐ No If no, please explain: How satisfied were you with your experience as a mentor? □ Very Satisfied □ Satisfied □ Slightly Satisfied □ Dissatisfied What is your general assessment of the mentoring program? ☐ Very Effective ☐ Effective ☐ Not Very Effective ☐ Not at All Effective Please indicate the reasons for your assessment: Please rate each of the following program components: **Mentor training Provisional training** Mentor support Interaction with the SEI Certification Coordinator How did you approach the mentoring relationship? What mentoring or communication skills and strategies did you use?

As you went through the mentoring process, did you see growth and development in your provisional coach? If so, would you share an example?
Was the mentoring relationship meaningful to your own growth and development? If so, in what ways?
Do you have any ideas for improving the mentoring program? If so, please note these below.

Please email completed evaluation forms to: tspeval@sei.cmu.edu.

Or send completed form to: Software Engineering Institute Carnegie Mellon University Attn: TSP Administrator 4500 Fifth Avenue Pittsburgh, PA 15213-2612

Direct any questions to the SEI Certification Manager:

Phone: 412-268-5800

Email: certification-info@lists.sei.cmu.edu