



Great Public Schools for Every Student

Understanding and Applying the 7-Step Problem Solving Process for Team Success

Paraeducators and teachers understand and apply the 7-step problem-solving process to improve the effectiveness of their team.

Key Method

Paraeducators and teachers analyze the 7-step problem-solving process to gain a deeper understanding, assess their current problem-solving practices and their impact on team effectiveness, apply/practice the process, develop an action plan, and reflect on the process.

Method Components

Guiding Principles

To enhance student outcomes, it is critical that paraeducators and teachers see themselves as partners in the educational process and continuously work to ensure they have an effective working relationship. Teams will undoubtedly encounter problems related to meeting the needs of students, building issues and policies, family/guardian concerns, or interpersonal relationships. Paraeducator-teacher teams should work collaboratively to solve these problems as soon as possible after they arise.

The 7-step problem-solving process is a standardized, disciplined approach to exploring problems, understanding root causes, and implementing effective solutions.

The 7-Step Problem Solving Process includes:

1. Identifying the problem
2. Determining needs and desired outcomes
3. Brainstorming solutions
4. Selecting a solution
5. Action plan development
6. Implementation
7. Evaluation

See the **Resource Section** to learn more about the 7-step problem-solving process.

Note: Paraeducators support certified/licensed educators, including teachers and other related service providers. Teams participating in the micro-credential process can also include related service providers, although the design of some of the micro-credentials and related artifacts are specific to the partnership between paraeducators and teachers. Related service providers might include speech-language pathologists, school nurses, transition specialists,

school psychologists, school social workers, creative arts therapists, occupational therapists, physical therapists, and school counselors. Most of these professions are currently defined as “providers of related services” in the Individuals with Disabilities Education Act (IDEA, 2004) and “specialized instructional support personnel” (SISP) in the Every Student Succeeds Act (2015). NEA and the National Alliance of Specialized Instructional Support Personnel (NASISP) both recognize and use the term SISP. See the **Resource Section** to learn more about SISP.

Method Components

Through analysis, assessment, application, action plan development, and reflection, paraeducator-teacher teams will understand and apply the 7-step problem-solving process to improve the effectiveness of their team.

Step 1 – Analysis & Assessment (Individual Analysis/Assessment)

In this step, paraeducators and teachers will demonstrate an understanding of the first four steps of the problem-solving process by analyzing two common teaming scenarios. They will also assess their team’s current problem-solving practices, examine how they impact team effectiveness, and identify areas in need of improvement.

Step 2 – Application/Practice & Team Action Plan Development (Team Process)

In this step, paraeducator-teacher teams will apply/practice the problem-solving process to an existing, real-life, or fictional problem, work together to identify a SMART goal (Specific, Measurable, Achievable, Relevant, Time-bound), and develop an action plan to improve team effectiveness.

The action plan provides a framework so that team members are clear on the goal, purpose, outcomes for success, strategies, implementation steps, timeline, and supports needed. Action plan development is step 5 of the problem-solving process.

Before establishing a SMART goal, teams should consider the following questions:

- What do we want to accomplish? What do we want to happen?
- Why do we want to accomplish this? What issues will the goal help to resolve?
- What is the overall desired outcome? How will we know if we were successful? How will we measure success?
- How will we meet our goal? What strategies will we implement to achieve success?
- When can we expect the goal to be completed? What is our timeline (e.g., start and end dates, key milestones, check-ins on progress)?

Step 3 – Reflection (Team Process)

Last, paraeducator-teacher teams will reflect on the process. Reflecting on what you have learned about yourself, your partner, your team, and problem-solving will cement learning, further improve team effectiveness, and encourage continued professional growth.

Supporting Research

Problem Solving

Educational Research: The Art of Problem Solving

<https://www.artsedsearch.org/study/educational-research-the-art-of-problem-solving/>

A Seven-Step Problem-Solving Method for School Psychologists

<https://eric.ed.gov/?id=ED374357>

Effective Paraeducator-Teacher Teams

Flowers, Nancy & Mertens, Steven & Mulhall, Peter. (2000). How Teaming Influences Classroom Practices. Middle School Journal. 32. 52-59.

https://www.researchgate.net/publication/254164177_How_Teaming_Influences_Classroom_Practices

Mickan, Sharon & Rodger, Sylvia. (2000). Characteristics of Effective Teams: A Literature Review. Australian Health Review. Vol 23. No 3.

<http://tlmerrill.pbworks.com/w/file/fetch/85213915/Mickan%2520and%2520Rodger%2520-%2520Characteristics%2520of%2520Effective%2520Teams.pdf>

Safford, Berdi, MD, and Manning, Cynthia A., MA. (2012). Six Characteristics of Effective Practice Teams. Fam Pract Manag. 2012 May-June; 19(3):26-30.

<https://www.aafp.org/fpm/2012/0500/p26.html>

Ruedel, K., Diamond, M., Zaidi, A., Aboud, A. (2002) The Inclusive Environment: Paraeducators and Teachers Working Together. Wed. May 11, 2018

http://www.academia.edu/922366/The_Inclusive_Environment_Paraeducators_and_Teachers_Working_Together

(scroll down to read paper or provide email to download)

Keefe, E.B., Moore, V., Duff, F. The Four "Knows" of Collaborative Teaching. Council For Exceptional Children, May/June 2004.

<https://www.scribd.com/document/371822820/the-fours-knows-of-collaborative-teaching-keefe-et-al>

Resources

NEA Building Winning Teams: Effective Paraeducator-Teacher Teams Training Resources

Teaming and Characteristics of Effective Paraeducator-Teacher Teams

https://drive.google.com/open?id=1n_X1x1DzC0qVa9eMmUtlZ4h2-oil6C6_

Roles and Responsibilities of Paraeducators, Teachers and Administrators

<https://drive.google.com/open?id=1sThOxYiYAdR1BTziWFWzUvj-vs64MMa>

The Five "Knows" of Collaborative Teaming

<https://drive.google.com/open?id=169LxOaBy0oiFmt1RxA6t7eQmjPNjrfWA>

Effective Communication

https://drive.google.com/open?id=1RyzvYt_ESKan52iT3tFvFsDF2atRzag_

Generational Differences: Impact on Teaming and Communication

<https://drive.google.com/open?id=1qCPGNqFny6jTY85pts3efTBAgH0vxgoS>

Conflict Management and Resolution Strategies

<https://drive.google.com/file/d/1hdjgyeDRKmbJzu15JM4niopoogeQ0luG/view?usp=sharing>

Problem Solving and Action Planning

https://drive.google.com/open?id=1mZ9t1Psio9jv_SqC5wkjbz6gC8_-4pBg

Problem Solving

How the Most Successful People Solve Problems

www.inc.com/erik-sherman/7-steps-to-solve-your-problems-like-highly-successful-people.html

The 7 Steps of Effective Problem Solving https://youtu.be/ui8gY_7mXcU

A 7-Step Problem-Solving Process

<https://www.youtube.com/watch?v=OnzgL3DqWHg>

Seven Steps for Effective Problem Solving in the Workplace <https://www.slideshare.net/darciraye/seven-steps-for-effective-problem-solving>

Problem Solving Strategies: Research/Gathering Data

<https://www.universalclass.com/articles/business/problem-solving-strategies/problem-solving-strategies-research/gathering-data.htm>

Barriers to Problem Solving

Barriers to Effective Problem Solving

<https://executive.eller.arizona.edu/2017/11/21/barriers-to-effective-problem-solving/>

Barriers to Problem Solving

<http://www.free-management-ebooks.com/news/barriers-to-problem-solving/>

Teaching Problem Solving

<https://cft.vanderbilt.edu/guides-sub-pages/problem-solving/>

Obstacles and Challenges of Introducing Problem Solving in the Classroom

<http://www.cmm.uchile.cl/?p=25274>

Effective Paraeducator-Teacher Teams

Let's Team Up: What Every Paraprofessional Needs for Student Success and Effective Teamwork

<https://www.nprinc.com/content/free-resources/Lets-Team-Up-Gerlach-Nov-2016.pdf>

Teacher and Paraeducator Team Perfects the Art of Collaboration

<http://neatoday.org/2017/08/02/teacher-and-paraeducator-team-perfects-art-of-collaboration/>

Top 10 List To Teachers – What Paraeducators Want You to Know

<https://dsagsl.org/wp-content/uploads/2019/02/what-paras-want-teachers-to-know.pdf>

SMART Goals

SMART Goals

<https://www.mindtools.com/pages/article/smart-goals.htm>

Specialized Instructional Support Personnel (SISP)

Specialized Instructional Support Personnel - NEA webpage

<http://www.nea.org/sisp>

National Alliance of Specialized Instructional Support Personnel (NASISP)

<http://nasisp.org/aboutus2/>

Artifact Templates

Problem-Solving Analysis and Assessment (Artifact 1)

<https://docs.google.com/document/d/1WiEg1XWHBt0DIVyVOlzkXNXD3oZIJi79XzHWc39OI8k/edit?usp=sharing>

Team Action Plan (Artifact 3)

<https://docs.google.com/document/d/1P1AWrXlqvWqqz-9RamX4Y-TcYWrvrfiazJ1OMcU0Q-Y/edit?usp=sharing>

Submission Guidelines & Evaluation Criteria

To earn the micro-credential, you must receive a passing score in Parts 1 and 3, and receive a proficient for all components in Part 2.

Part 1. Overview Questions

250 - 350 words

Please answer the following contextual questions to help our assessor understand your current situation. Please do not include any information that will make you, your partner, or your students identifiable to your reviewers.

1. Describe the context of the classroom or setting in which you work (e.g., general ed classroom, resource room, community-based setting). Include grade level, subject area, any relevant cultural/demographic information, and special considerations regarding student characteristics.
2. Describe the makeup of your team (with whom you work regularly to directly support students). Include who is on your team (i.e., teachers, paraeducators, related service providers/SISP), each team member's roles/responsibilities, and how long you have worked together.
3. What did you know about problem solving before any information or resources were made available to you?
4. Describe your strengths and weaknesses related to problem solving.
5. Explain why you chose to complete this micro-credential.

- **Passing:** Responses should completely answer each question, cite specific examples from personal experience, and justify the reason for choosing this micro-credential to address the specific needs of both the paraeducator-teacher team and students. Writing is organized and easy to understand.

Part 2. Work Examples / Artifacts

To earn this micro-credential, please submit the following **four artifacts** as evidence of your learning. Please do not include any information that will make you, your partner, or your students identifiable to your reviewers. **Templates can be found in the Resource Section.**

Artifact 1: Analysis and Assessment

Using the template provided, complete the problem solving analysis (Part 1) and assessment (Part 2).

Part 1 – Analysis

Analyze the scenarios and then respond to the following questions to demonstrate your understanding of steps 1-4 of the problem solving process.

Scenario 1: Darrell, a middle school math teacher, developed a series of algebra assignments for his advanced eighth grade class in preparation for the state test given in the spring. Each of the eighth graders is required to complete a selected number of algebra problems and group assignments within the next few weeks. Sandra, the paraeducator, is working with a small group of eighth graders. Two students, Jan and Joey, are consistently failing the group assignments. Both Darrell and Sandra suspect that something may be going on that is keeping Jan and Joey from completing their group assignments, but they are not sure what.

Scenario 2: The teacher never fully explains or elaborates on the work she asks the paraeducator to complete and says it takes her too long to get it done. The paraeducator works quickly and efficiently and does her work to the best of her ability each day. However, the teacher is always criticizing her efforts and is never satisfied with how the work is completed.

1. What is the problem(s) in this situation?
2. What are the needs of each individual in this situation?
3. How do the desired outcomes of each individual differ?
4. What are possible solutions to this problem?
5. Which solution do you think would best meet the needs of those involved and will achieve the desired outcomes of the team?
6. How would you implement any possible solutions?

Part 2 – Assessment

Complete the assessment to assess your team's current problem-solving practices, examine how they impact team effectiveness, and identify areas in need of improvement.

Note: Paraeducators and teachers must complete this artifact independently.

Artifact 2: Application/Practice Evidence

Apply steps 1-4 of the problem-solving process to an existing, real-life, or fictional problem. The problem must be related to your team and the worksite/classroom environment. Two optional scenarios have been provided and can be used as the basis of this activity.

The format of your artifact can be a video or written analysis. Video artifacts should be 10 minutes maximum. Written artifacts should be 350-450 words. At the beginning of your artifact, indicate your role on your team (i.e., paraeducator, teacher, related service provider/SISP). Both team members must actively participate in the activity.

Artifacts must address the following problem-solving steps as follows:

- Step 1: Identify the problem - Artifact must identify and describe the problem.
- Step 2: Determine needs/desired outcomes - Artifact must describe and/or summarize the needs and outcomes.
- Step 3: Brainstorm solutions - Artifact must describe, list, and/or summarize the solutions identified during the brainstorming session.

- Step 4: Select a solution - Artifact must identify and describe the solution that best meets the needs of those involved and will achieve the desired outcomes of the team.

Note: Paraeducators and teachers should complete this artifact together. They can submit the same artifact.

Optional Scenarios

Scenario 1: You are Chris Baxter, an elementary teacher in a large urban school district. You have been a teacher for five years and have been in your present position for two years. Several months ago, you were assigned a new paraeducator, Joan Kelly, an experienced, outgoing, and committed individual. She has worked as a paraeducator for 15 years. Her length of experience is a source of discomfort for you. You previously had paraeducators who consistently argued with you about methods of treatment and instruction, something which is a drain on your time and energy. You are not looking forward to the possibility of this occurring again. You have seen Joan periodically not follow your instructions when working with some students. To date, you have not said anything to her. You and Joan are meeting today to discuss a plan of action for dealing with one student’s poor math performance. You also plan, if the opportunity presents itself, to raise your concerns about Joan.

Scenario 2: You are Joan Kelly, a paraeducator in a large urban school district. You have been a paraeducator for 15 years and love working with children. You have three children of your own, two of whom have learning disabilities. You’ve spent the past five years working at another school system with a teacher who recognized your commitment and respected your expertise. You were continually involved in planning lessons and providing classroom monitoring as well as evaluative input in the development of the students’ lessons. Several months ago, you were transferred to work with Chris Baxter, a special education teacher. You find her cordial and competent but disagree with some of the instructions she has given you when monitoring certain students’ work. You’ve not discussed these disagreements with her, however, because of your workloads. You have instead gone ahead and relied on your own expertise when you felt it necessary. Chris has scheduled a meeting to discuss the poor performance of one of the students with whom you have been working very closely. You plan to contribute your perspectives on improving the student’s performance.

Artifact 3: Team Action Plan

Using the template provided, submit a team action plan around at least one SMART goal related to the problem identified in Step 2. This artifact satisfies Step 5 of the problem-solving process.

Note: Paraeducators and teachers should complete this artifact together. They can submit the same action plan.

Artifact 4: Reflection

Reflect on this process by answering the following questions. The format of your artifact can be a video or written analysis. Video artifacts should be 10 minutes maximum. Written artifacts should be 350-450 words.

1. What type of workplace problems do you think most interferes with meeting the needs of students?
2. Which of the problem-solving steps do you think are most important? Which do you think are most challenging?
3. What did you learn about yourself as it relates to problem-solving?
4. Based on what you know now, how well has your team has solved problems in the past? What has worked? In what ways does your team need to improve? How does your team plan to continue to practice and improve in this area?

At the beginning of your artifact, indicate your role on your team (i.e., paraeducator, teacher, related service provider/SISP). Both team members must actively participate in the reflection.

Note: Paraeducators and teachers should complete this artifact together. They can submit the same artifact.

Proficient	Basic	Developing

Artifact 1: Analysis and Assessment

All elements of the analysis questions are completed.

Explanation is explicitly clear and provides sufficient detail to explain and demonstrate understanding of the following areas:

- The problem(s) in the situation
- The needs of each individual
- How the desired outcomes of each individual differ
- Possible solutions to the problem
- The solution that would best meet the needs of those involved and achieve the desired outcomes of the team
- How to implement possible solutions

All elements of the assessment questions are completed.

Responses clearly assess each of the following:

- the team’s strengths and weaknesses related to problem solving
- how the team’s ability to solve problems has affected team effectiveness in the past
- a recent problem the team had to solve including its impact on team effectiveness and students and if the problem was resolved
- areas in need of improvement and tools and resources needed

Artifact 2: Application/Practice Evidence

Artifact demonstrates evidence that each of the following steps were applied:

- Identify the problem (problem was identified and described)
- Determine needs/desired outcomes (needs/outcomes were described/summarized)
- Brainstorm solutions (solutions were

Some elements of the analysis questions are completed.

Explanation is clear and provides sufficient detail to explain and demonstrate understanding of the following areas:

- The problem(s) in the situation
- The needs of each individual
- How the desired outcomes of each individual differ
- Possible solutions to the problem
- The solution that would best meet the needs of those involved and achieve the desired outcomes of the team
- How to implement possible solutions

Some elements of the assessment questions are completed.

Clear assessments are missing for one or two of the following:

- the team’s strengths and weaknesses related to problem solving
- how the team’s ability to solve problems has affected team effectiveness in the past
- a recent problem the team had to solve including its impact on team effectiveness and students and if the problem was resolved
- areas in need of improvement and tools and resources needed

Some elements of the analysis questions are completed.

Explanation is unclear and is lacking detail to explain and demonstrate understanding of the following areas:

- The problem(s) in the situation
- The needs of each individual
- How the desired outcomes of each individual differ
- Possible solutions to the problem
- The solution that would best meet the needs of those involved and achieve the desired outcomes of the team
- How to implement possible solutions

Some elements of the assessment questions are completed.

Clear assessments are missing for more than two of the following:

- the team’s strengths and weaknesses related to problem solving
- how the team’s ability to solve problems has affected team effectiveness in the past
- a recent problem the team had to solve including its impact on team effectiveness and students and if the problem was resolved
- areas in need of improvement and tools and resources needed

Artifact is missing evidence of application of one or two of the following steps:

- Identify the problem (problem was identified and described)
- Determine needs/desired outcomes (needs/outcomes were described/summarized)
- Brainstorm solutions (solutions were

Artifact is missing evidence of application of more than two of the following steps:

- Identify the problem (problem was identified and described)
- Determine needs/desired outcomes (needs/outcomes were described/summarized)
- Brainstorm solutions (solutions were

	<p>described/listed/summarized) -Select a solution (solution that best meets the needs of all and will achieve desired outcomes was identified and described)</p> <p>Evidence of each step is explicitly clear and sufficient detail is provided.</p> <p>The problem is relevant to the team and worksite/classroom environment.</p> <p>Both the paraeducator and teacher partner actively participated in the activity.</p>	<p>described/listed/summarized) -Select a solution (solution that best meets the needs of all and will achieve desired outcomes was identified and described)</p> <p>Evidence of each step is somewhat clear and sufficient detail is provided.</p> <p>The problem is relevant to the team and worksite/classroom environment.</p> <p>Both the paraeducator and teacher partner actively participated in the activity.</p>	<p>described/listed/summarized) -Select a solution (solution that best meets the needs of all and will achieve desired outcomes was identified and described)</p> <p>Evidence of each step is unclear and sufficient detail is lacking.</p> <p>The problem is not relevant to the team and worksite/classroom environment.</p> <p>The paraeducator or teacher actively participated in the activity, but not both.</p>
Artifact 3: Team Action Plan	<p>The action plan contains all of the following components: -at least one goal -purpose/rationale desired outcome(s) -1-3 strategies for achieving goal -steps to implement strategies -timeline -supports needed</p> <p>The goal is SMART and aligns to each element of the SMART framework (specific, measurable, achievable, relevant to the team/worksite/classroom, and time-bound).</p> <p>Strategies are relevant to the goal and are achievable.</p> <p>The plan has clearly defined action steps.</p>	<p>The action plan is missing one or two of the following components: -at least one goal -purpose/rationale desired outcome(s) -1-3 strategies for achieving goal -steps to implement strategies -timeline -supports needed</p> <p>The goal is missing one or two elements of the SMART framework (specific, measurable, achievable, relevant to the team/worksite/classroom, and time-bound).</p> <p>Strategies are relevant to the goal or are achievable, but not both.</p> <p>Action steps are broad.</p>	<p>The action plan is missing more than two of the following components: -at least one goal -purpose/rationale desired outcome(s) -1-3 strategies for achieving goal -steps to implement strategies -timeline -supports needed</p> <p>The goal is missing more than two elements of the SMART framework (specific, measurable, achievable, relevant to the team/worksite/classroom, and time-bound).</p> <p>Strategies aren't relevant to the goal and they aren't achievable.</p> <p>Action steps are not evident.</p>
Artifact 4: Reflection	<p>Reflection clearly describes each of the following elements: -The type of workplace problems that most interfere with meeting the needs of students -Which problem solving steps are most important and which are most</p>	<p>Reflection is missing a clear description of one or two of the following elements: -The type of workplace problems that most interfere with meeting the needs of students -Which problem solving steps are most important and which are most</p>	<p>Reflection is missing a clear description of more than two of the following elements: -The type of workplace problems that most interfere with meeting the needs of students -Which problem solving steps are most important</p>

challenging
-What team members learned about themselves related to problem solving
-How the team has handled problem solving in the past including what has worked, areas of improvement, and the plan for continued practice/improvement

Both the paraeducator and teacher partner actively participated in the reflection.

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The paraeducator or teacher actively participated in the reflection, but not both.

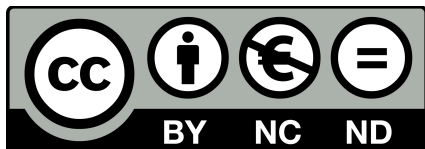
Part 3: Reflection

250 - 350 words

Please answer the following reflective questions. Please do not include any information that will make you, your partner, or your students identifiable to your reviewers.

1. How did (or will) the process of understanding and applying the problem-solving process affect team effectiveness? How did (or will) it affect students?
2. How has this experience affected you in your role as a paraeducator or teacher?
3. How do you envision using your new learnings with existing or new team members in the future?

- **Passing:** Responses should completely answer each question, cite specific examples from personal experience, and describe how the process and learnings have affected the paraeducator-teacher team as well as students. Specific actionable steps that demonstrate how the new learnings will be integrated into future practices are also cited. Writing is organized and easy to understand.



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