

# Teaching Tips/Notes



## TPS (Think, Pair and Share) as an Active Learning Strategy

Today's classroom teachers are challenged to make students think, provide experiences that help them learn and understand the concepts that are being taught, and provide opportunities to do, think and reflect. Active learning (AL) is one such strategy that engages students in two aspects – doing things and thinking about the things they are doing (Bonwell and Eison, 1991). Active learning includes an array of teaching activities that range from simple question and answer sessions to complex practicum and research involvement. Research has shown that AL is an effective teaching technique that allows students to learn more with the help of the instructor and other students. As shown in Figure 1, providing students with opportunities to experience what they are doing, observe what others do and have a conversation/dialogue with others and themselves will help them to critically think and apply concepts taught in class to real life situations.

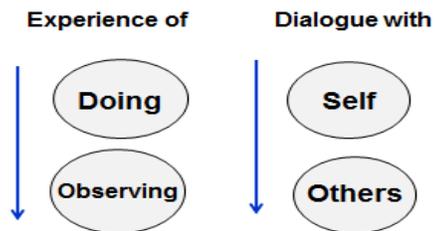


Figure 1: Key Features of Think, Pair and Share Strategy

Think, Pair, and Share – TPS is an AL strategy that can be used in any classroom format which gives students time to think on a topic, turn to their neighbor for a short discussion and share the results of the discussion to the rest of the class. The purpose of this “Teaching Tip” article was to describe the use of TPS in a senior level undergraduate research methods class and evaluate the effectiveness of TPS in enhancing student learning. TPS involved three steps. Step 1 (THINK) – in this step, students were asked to define a concept or term in the context of their research study. For example, validity and reliability as concepts in a research study. Then, they were asked to think about its meaning and write down its use in conducting a research study. In Step 2 (PAIR) – students were asked to discuss with the individual sitting next to him or her about the terms and concepts identified in step 1. The rationale in step 2 is to not only understand the concepts from each student's point of view but also learn from each other. Step 3 (SHARE) involved sharing of the experience of learning the concept with the rest of the class. The rationale in step 3 is to understand the term or concept from a variety of perspectives. A total of 15 minutes are needed to complete the three steps. TPS was used six times in a semester.

To assess the effectiveness of TPS, a simple assessment tool was developed. Students indicated that TPS was a very useful strategy (100%), increased their critical thinking (80%), was a good strategy (100%), and recommend use of TPS strategy in other classes (100%). Further, students were also asked, at the end of the semester, to rate the effectiveness of TPS as an AL strategy on a five-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The statement, “TPS helped students to know how knowledgeable their peers were relative to a specific research term or concept” received the highest mean rating (4.62), followed by “opportunities to pair with a fellow student to discuss concepts” (4.5), served as a good reinforcing tool for concepts learned in class (4.5), increased critical thinking of research concepts (4.3), and cleared doubts on concepts learned in class (4.3). Further, over 70% of the students indicated that TPS should be continued, more so in undergraduate courses. Overall, students agreed that TPS is a good active learning strategy to understand concepts before they are taught, get to

know students and where they are relative to the concepts. The following verbatim comments support the student consensus on TPS.

*"TPS strategy really helps you assess what you know before you are taught the concept. If everyone has a good understanding of the concept, instructors can spend less time covering and move on to things that students don't know."*

*"I think giving students the opportunity to present both broadens other students understanding and forces the presenter to verbalize and explain."*

From the instructor perspective, TPS has several advantages which include 1) helpful in organizing content and tracking students on where they are relative to the topic being discussed in class, 2) allows students to prepare for each class session, 3) saves instructor time so that he/she can move to other topics, 4) provides opportunities for students to interact with each other, and 5) helps the instructor in making the class more interactive than regular lecture sessions.

In summary, TPS is a very good active learning strategy. If properly implemented, it saves instructor time, keeps students prepared, helps students to get more involved in class discussion and participation, and provides for cumulative assessment of student progress. TPS is not a good strategy to use in large classes because of time and logistical constraints. Frequency of using TPS strategy should be carefully planned so that it will not take too much time. Further research is needed to link TPS strategy to test performance. Please contact the authors for sample questions and details of procedures used in TPS discussions and assessment tools used to assess the effectiveness of the TPS strategy.

### **References**

Bonwell, C. E., and J. Eison. 1991. Active learning: Creating excitement in the classroom (ASHE-ERIC Higher Education Report No. 1) Washington, DC: George Washington University.

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