|  |  |  |
| --- | --- | --- |
| Before Reading | What do you know? | After Reading |
| True | False |  | True | False |
|  |  | 1.Novice learners overestimate their level of performance. |  |  |
|  |  | 2. Readers who interrupt their reading to talk aloud about what they are reading have poor comprehension.  |  |  |
|  |  | 3.Teaching students to self-monitor improves student learning. |  |  |
|  |  | 4. Self-testing is a proven technique to enhance student learning. |  |  |

 **Partner A**

***Evaluating One’s Own Strengths and Weaknesses***

Research has found that people in general have great difficulty recognizing their own strengths and weaknesses, and novice learners appear to be especially poor judges of their own knowledge and skills.

For example, when nursing students were asked about their proficiency in performing several basic procedures (such as inserting an IV), the majority of them *overestimated* their abilities relative to their actual performance. This phenomenon has been found in a variety of contexts (Dunning, 2007).

Moreover, research suggests that the students with weaker knowledge and skills are less able to assess their abilities than students with stronger skills.

 For example, when asked to predict their performance both before and after completing a test, students showed different levels of accuracy in their estimates, based on their *actual* performance: The highest-performing students accurately predicted and estimated their performance, but the weak students grossly overestimated their performance both before and after taking the test – placing themselves in the 68th percentile when their actual performance landed in the 11th percentile. (Hacker et al., 2000).

Basically, novice learners lack skills to improve because they are unable to distinguish between what they know and what they don’t know [The Dunning and Kruger Effect]. Many studies have also shown that novice learners can be taught to raise their competence by learning the skills to judge their own performance more accurately. Indeed it has been found that teachers can engage students in tasks (e.g., testing, self-testing, and explanation) that make it possible for students to reliably monitor their own learning.

Adapted from *How Learning Works* by Ambrose , Bridges DiPietro, Lovett, & Norman (2010)and *The Science of Learning* by Deans for Impact (2015).

 **Partner B**

***Monitoring Performance***

Research on the effects of students’ self-monitoring activities has highlighted two important findings.

First, students who monitor their own progress and try to explain to themselves what they are learning along the way show greater learning gains compared to students who do not engage in self-monitoring and self-explanation activities.

In one study, students were asked to interrupt their reading at intervals to explain what they were reading. Afterward, the students took a test that measured how much they had learned. The researcher found a key difference between the students with high scores and low scores. The students with high scores were far more likely to monitor their understanding while they studied, that is, to continually stop themselves as they were reading to ask whether they were understanding the concepts just presented (Chi et al., 1989).

But can teaching students to self-monitor actually improve students’ learning? Research in multiple domains indicates that the answer is yes.

Multiple studies have shown that students who were taught or prompted to monitor their own understanding or to explain to themselves what they were learning had greater learning gains than students who were not given any self-monitoring instruction (Bielaczyc, Pirolli, & Brown, 1995; Chi et al., 1994).

Research has also shown that when students are taught to ask each other comprehension-monitoring questions during reading, they learn to self-monitor more often and learn more from what they read (Palinscar & Brown, 1984).

Adapted from *How Learning Works* by Ambrose , Bridges DiPietro, Lovett, & Norman (2010)and *The Science of Learning* by Deans for Impact (2015).