

Sam and Alessi's Declassified SCALE-UP Survival Guide



Epistemological Types

Dualism: You take a very black-and-white approach to solving problems. There is a right answer and a wrong answer, no in between. While this may apply in other subjects, in physics there tends to be multiple approaches to solve the problem. Thinking in this right or wrong way may cause problems for you in this complex class, as most problems will have more than one correct approach. This drive to find the correct answer will benefit you in scale up, but remember to listen to the input of your group mates as well. They are there to help you learn and may just show you a new way to solve a problem you wouldn't have thought of before.

Multiplism: You are of the mindset that there are many ways to approach a problem. This creative thinking will benefit you and your group mates well in scale up physics, as many problems can be approached from several different ways. Be wary, however, of getting too bogged down in finding approaches and not actually tackling the problem. Your group mates will be a great asset to you in trying to find the correct approach. They will be able to help you quickly sort through different ideas to find the one that will work best for the problem at hand. Don't be afraid to speak up if you and think of another idea, however. Sometimes the most creative approaches will work just as well as the standard or expected ones.

Relativism: You tend to be more open minded when solving problems. Considering various scenarios to you also means giving equal consideration to many possible solutions. This tendency to value the details of a problem will serve you well in scale up because there will be many occasions where it is indeed necessary to realize and be aware of often overlooked factors in an exercise. As much as this quality is an advantage, beware as it may also perturb your ability to come to a final answer at times. Logical and coherent thinking is highly valued, but unfortunately or not, it will be necessary to commit to a solid answer for exams and other assignments. For in class activity, this may very well be alleviated with the addition to group work where you can receive peer perspective and ultimately come to an answer.

Commitment to Relativism: Just as with relativism, you tend to be very open minded when solving problems. Considering various scenarios to you also means giving equal consideration to many possible solutions. This tendency to value the details of a problem will serve you well in scale up because there will be many occasions where it is indeed necessary to realize and be aware of often overlooked factors in an exercise. In addition, you will be able to commit to a solid answer for exams and other assignments. Although, some things to be mindful of are the amount of time you may take to consider all details of a scenario and also being open minded about others perspectives that may arise. You know well that there are many ways to approach a problem, so it's good to keep in mind that all approaches that may be proposed by others in group work are equally valuable.

Citation:

Grove & Bretz (2010), Perry's scheme of intellectual and epistemological development as a framework for describing student difficulties in learning organic chemistry,