To: Engineering Communications

../../../../initials.pngFrom: Willis Allstead (9-3)

Date: Nov 18, 2017

Subject: Critical Thinking Podcast - Professional Development

Critical thinkers improve the quality of their thinking by imposing intellectual standards upon their thinking. This means that critical thinkers continuously develop. Critical thinkers can explore alternative viewpoints purposefully. Accepting that emotion and feelings are critical to being human, critical thinkers make efforts to manage their emotions. Language cannot be separated from thinking. Therefore, developing language can be beneficial to developing critical thinking skills. Argument is simply a claim used to persuade others, and therefore should not be taken offensively. Induction and deduction are two processes of logical reasoning which can be implemented throughout life. Induction is moving from observations to conclusions, and deduction is moving from conclusions to predictions and verifying the predictions. In problem solving, make sure to define the problem and identify the knowns and unknowns. Making relationships between the knowns and unknowns of a problem can help solve the problem. Problem solving is a subset of critical thinking as it is the process of reasoning to solutions using application of previously learned procedures. Methodological strategies can be implemented to aid in problem solving. Algorithmic methods are used for low-level tasks. Heuristic methods are used for higher-level tasks, and therefore are less domain-specific.