

Engineering Literacy Dimension: Engineering Habits of Mind

Overview: *Optimism* is the ability to look at the more favorable side of an event or to expect the best outcomes in various situations. It allows a person to view challenging situations as opportunities to learn and improve or as chances to develop new ideas. An optimistic habit of mind enables a person to be persistent in looking for the optimal solutions to problems. This Engineering Habit of Mind is important because engineering literate individuals will often experience repeated failures or unfavorable situations when solving a problem. An optimistic way of thinking provides ongoing motivation to focus on successfully resolving the problem at hand. Engineering literate individuals, as a general rule, believe that things can always be improved. Just because it hasn't been done yet, doesn't mean it can't be done. Good ideas can come from anywhere, and engineering is based on the premise that everyone is capable of designing something new or different (NAE, 2019).

Performance Goal for High School Learners

By the end of secondary school, engineering literate students should be able to maintain an optimistic outlook throughout the course of an engineering project/activity in order to persevere in accomplishing designated tasks.

Resources

Engineering is Elementary. (n.d.). *Engineering habits of mind*. <https://blog.eie.org/topic/engineering-habits-of-mind>

LinkEngineering. (n.d.). *Habits of mind*. <https://www.linkengineering.org/Explore/what-is-engineering/5808.aspx>

Royal Academy of Engineering. (2014, May). *Thinking like an engineer: Implications for the education system*. <https://www.raeng.org.uk/publications/reports/thinking-like-an-engineer-implications-full-report>