Critical thinking is the ability to digest information given and apply it to solve a problem or for use in a situation to make a decision. Let me quote from a well written blog I found; “Critical thinking might be better thought of as a mindset than a skill…” ¹(Heick, 2021). Critical thinking is what we use in the scientific method for experiments. Is it present in using mathematical formulas. It is the building blocks of pseudo code and can be found in formulating philosophical arguments as well. It is an ever present, necessary skill that so many student need in day to day life, and yet lack. It is one of the key factors holding many students back from entering the tech field. Many students fear becoming a coder because they feel overwhelmed by the difficulty of problem solving, and hence, coding, because they lack critical thinking as a skill. Due to how our schools are structured, many students simply learn to follow instructions and to memorize information instead of how to use that information to change things around them, i.e. how to critically think about the information they have received and do something useful with it.

From an employer’s perspective this can be very frustrating. It is mind boggling that a student who spent 12 years in school learning about the scientific method and mathematical formulas, and spent a further 4 years in college studying programming and problem solving skills, yet enters the workplace and gets stuck the first day on the job sitting behind a computer screen and freezing up on the first problem that needs solving because of the lack of critical thinking, and yet this happens all the time. You would think that being exposed to years of critical thinking situations would teach them the skill, and yet they still cannot start solving a problem when given information about the problem but no instructions on how to solve it. Critical thinking is not something one institution can be responsible for teaching on its own. It should be a combined effort between parents, schools, colleges and work places to have a culture of critical thinking. Critical thinking is not simply memorizing and knowing how to use a mathematical formula, but understanding how the formula was created and why it is used in a certain way, so that if the formula was ever shuffled around or altered a little you would still understand it and be able to use it, whereas one who simply memorized it wouldn’t know what was going on. We tend to teach ‘fake’ critical thinking in schools in order to get students to pass. We should be focusing less on grades, and more on developing an understanding of the work, from birth to adulthood.

Word Count: 480

References:

1. Heick, T. (2021, February 25). *Can We Teach Critical Thinking In Schools?* TeachThought. https://www.teachthought.com/critical-thinking/can-we-teach-critical-thinking-in-schools/