Human Factors Briefs: Human Factors Briefs are based on the course learning outcomes and module objectives. The assignments will have you develop a brief that highlights human factors issues or principles related to the module topics. These typically are posed as problems or situations in an applied setting and will have you address human factors considerations focusing on the cognitive elements specified. You may find examples and similar situations in the literature; however, you will need to become proficient in using key words that encompass human factors principles and issues as you conduct your searches for material. Critical thought and reasonable problem-solving skills will be essential. For this course, the written products must: • Be at least 800 words (be sure to include a cover page, abstract and conclusion), and references, with Times New Roman font using 12-point size, all per APA format and style 6th edition. • Consist of a title that reflects your topic, an introductory paragraph (Note: An introduction heading is not used in APA format), sections that address the assignment requirements, and a summary paragraph. • Incorporate scholarly sources to support your analyses and recommendations, beyond those included in course readings. • Include citations and references (properly formatted using APA style guidelines). • Not use quotations from sources.

Instructions: There are many industry simulation systems that are used for training new operators. The expectation is that training with a virtual system will translate to comparable experience that would be gained working in a real-world environment. Examples are GE High Fidelity Plant Simulators, plasma welding and torching, underground mining, nuclear reactors, oil production platforms, and others. For instance, Siemens has an advanced simulator to train technicians how to assemble machines that employ 3-D technology and virtual engagement with VPL gloves and VR-Star goggles as the trainee moves through a cylinder resembling the actual working environment. Proponents claim this type of full experience allows greater fidelity of actual working conditions and enhances comprehension in the work environment. Let’s say you have been brought in to a design review as a human factors specialist. At issue are concerns about how operators familiar with an older system might respond to the virtual reality simulation training. When considering how humans think about their own thinking (metacognition), a dimension of that involves how humans correct their thinking when new information is assimilated or they become aware of certain discrepancies (metacomprehension). In your view, does the added fidelity and complexity in these types of virtual training reinforce comprehension skills and translate directly to the actual working conditions, or is it more likely to generate a loss of confidence and confusion when trainees fail to execute correctly once on the job? Explain your reasoning and also indicate to what extent any difficulties might be attributed to metacomprehension effects. Provide at least four (4) scholarly resources to support your assessment. Present this as a brief. Your brief should be approximately 800 words in length and needs to be written in APA format 6th edition with an abstract and conclusion.