Bret Retherford November 07, 2017

EDT 8220 – ID Concepts and Theories Week 3

**Learner Analysis** – Training Scheduling System (TSS)

**Questionnaire Qualtrics Link:** [TSS Learner Demographic Questionnaire](https://wright.qualtrics.com/jfe/form/SV_7X3hSVzfwhaVEIB)

**Description of Population**

**1. Target population:** The target population is United States Air Force aircraft depot maintenance production supervisors working at the three Air Force aircraft maintenance depots across the United States. This population consists of approximately 200 supervisors who certify over 2500 aircraft maintainers on various tasks. These maintainers perform depot level, or high flight-hour or long interval/overhaul type maintenance on the entire Air Force aircraft fleet.

**2. Commonalities between participants:** All of the supervisors work in an aircraft production maintenance environment, and all have significant experience working on various aircraft systems. All serve in leadership roles. These supervisors have the same general position descriptions and federal job series regardless of physical location or organization structure within each depot.

**3. Differences between participants**: The supervisors vary in gender, religion, levels of education, and years of experience. They oversee maintenance for a variety of maintenance group categories. These categories include different types of aircraft, propulsion systems, engines, avionics, and weapons platforms.

**4. Range of ability between participants:** Depot level maintenance supervisors must possess a high school diploma and the ability to read and write at a level commensurate for the position. The biggest limiting factor is variances in computer use ability. These differences range from supervisors who lack basic computer skills, to lacking proficiency in internet use required to access TSS (which is web-based), to supervisors who demonstrate high levels of both computer literacy and proficiency.

**5. Why are the participants taking the course?** Air Force Material Command conducted an audit of depot maintenance records in 2016 and discovered over 43% of maintenance employees were not being properly certified on depot-level maintenance task demonstrations. Subsequent root-cause analysis of aircraft maintenance personnel and supervisors indicated lack of proficiency using TSS as the number one finding. Survey results of supervisors indicated a confusing graphic user interface (GUI), inadequate initial training, and infrequent recurring training as leading causes of TSS use discrepancies.

**6. Are there any non-instructional needs that must be met?** Yes. Classrooms must be set up with 508 compliant equipment for supervisors with disabilities (computer software). A pre-class information briefing is recommended to inform supervisor students how to egress in the event of a natural or man-made emergency, along with the location of restrooms, break areas, and dining locations if the supervisors are visiting from another depot.

**7. What will make the instruction more effective for the target group?** Presentation of information to supervisors to increase effectiveness/interest in revised instruction include the critical role they play in the certification process, a simplified multimedia presentation that appeals to all levels of computer/software users, and impacts of inaccurate certification.

These impacts include how inaccurate certification could result in aircraft component damage, mishaps, and potential loss of life where aircraft maintenance records are examined in aircraft mishap investigations. Organizational impacts include increased re-training costs, underutilization of maintenance personnel due to erroneous proficiency records, and overall cost increases to the Air Force. Career impacts of inaccurate record keeping could include increased stress/tension between supervisor/worker, poor supervisor performance evaluations, and possible disciplinary action or loss of career.