

A Government Off-The-Shelf (GOTS) Intelligent Tutor

NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION ORLANDO FLORIDA

EXHIBIT FACT SHEET



A Government Off-The-Shelf (GOTS) Intelligent Tutor

The Naval Air Warfare Center Training Systems Division (NAWCTSD) is currently researching current and future innovations in technology to meet the critical training needs of military and civilian personnel and to showcase our capabilities, products, and services. One such technology is the use of intelligent tutoring to deliver instructional content and train personnel in crucial skills such as secure communications.

To that end, NAWCTSD is exploring intelligent tutoring technologies using the U.S. Army's Generalized Intelligent Framework for Tutoring (GIFT) to build an Intelligent Tutoring System (ITS) to train users of the AN/PYQ-10 Simple Key Loader (SKL). The SKL, or AN/PYQ-10, is a computerized, portable, handheld device with the capability to securely receive, store, and transfer Signal Operating Instructions (SOI), Electronic Protection (EP), and Key data amid compatible cryptographic and communications

equipment. Training the use of this device encompasses learning outcomes such as procedural and conceptual knowledge.

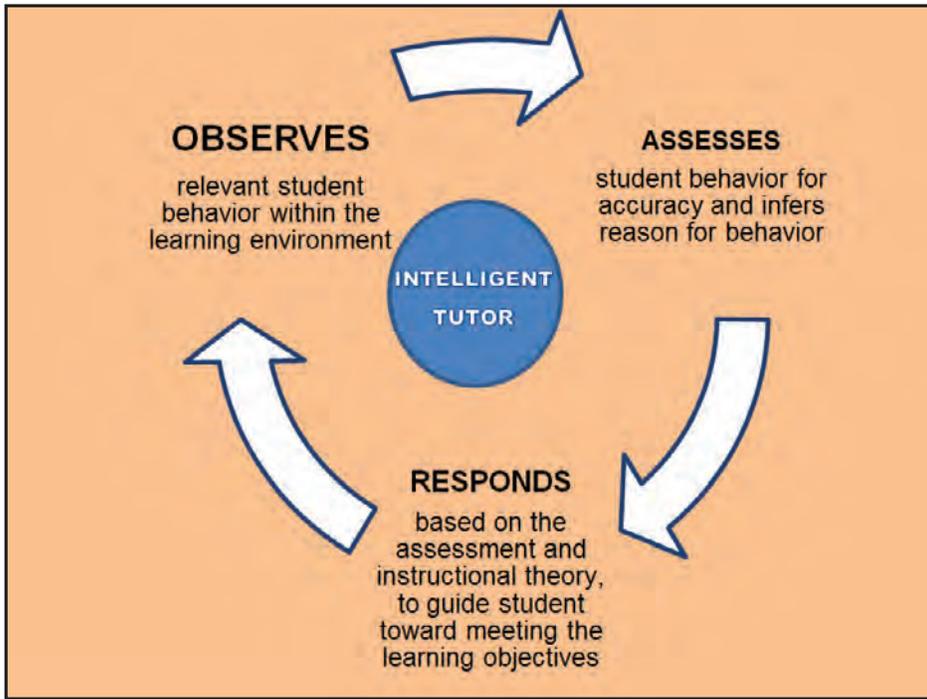
Intelligent tutoring can be used to dynamically model and reason about learners. The tutor monitors student performance during activity engagement and draws a conclusion regarding student mastery. This conclusion is based on the student's correct or incorrect responses to questions or actions taken within the learning environment. The tutor can use that information to tailor concept presentation, level of difficulty, and the type of exercises the student encounters later in the lesson or future lessons. In this way, instruction is tailored to the individual student, providing just enough guidance from the tutor and proceeding at just the right pace.

This exhibit will include an interactive demonstration of how GIFT will be used to intelligently adapt the content and



AN/PYQ-10 Simple
Key Loader





pace of the training in real time, based on an assessment of each trainee's performance. NAWCTSD will provide a "behind-the-scenes" look at the authoring and software development tasks necessary to take the GIFT architecture and produce a new Intelligent Tutoring System adept at training such domains as the SKL.

This project is being conducted for the Navy's Center for Information Dominance.