EDCI 531

Ginger Ciuperca

Case Study 2: Cognitive Information Processing

Description

Jangro is a dynamic force in the cleaning supply industry and has the largest network of independent janitorial distributors in the US. It provides excellent service and the highest levels of quality, choice, training and technical support attainable. Premium products are supplied via distributors to provide a speedy and efficient service.

One of the biggest challenges that Jangro faces is training its employees and dealer executives on its latest products/services. Currently, Jango has limited corporate training because it was previously done at the local locations on an ad-hoc basis. Jango has hired training consultants Doctrina to design, develop and deploy training for a new LMS and mobile app.

Upon examination of the business, the Doctrina Training consultants realize that it will be a major adjustment for employees to use the new LMS and mobile app. In fact, internal employees and dealer staff will require extensive training. Due to a correlation of the new systems to the business bottom line, the Jango executive team are anxious about how prepared their workforce will be to work in the new system. The executives have made it clear to Doctrina that their main priority is to develop a training program targeted at reaching long-term memory allowing the employees to retain and recall what they have learned.

Doctrina Training consultants have decided to develop a training program based off the cognitive information processing theory (CIP). They chose CIP because of its focus on logical organization and memory enhancement. Their next step is to analyze how CIP can be used to develop training for Jango.

Reflective Questions

1. How can the consultants organize their training to maximize learning?
2. What is the best way to present the information for it to be stored in long-term memory?
3. What type(s) of exercises can the consultants include in the training to allow for easy retrieval of steps learned?
4. What strategies can be used to increase encoding and memory?

Potential Solutions

The consultants began their analysis by looking at the flow of information in CIP: sensory memory, working memory and long-term memory. They decided that this structure would be the best way to organize each of the courses. Beginning with sensory memory, the course would start with a cue, either visual or auditory, to gain and focus the attention of the learners. The sensory stimuli could be key terminology or a screenshot of the mobile app that could trigger a memory of a featured product. Additionally, the instructors can be coached to use auditory cues to refocus the attention of the learners by saying things, such as, "This next step is critical in the process, particularly those who are entering orders via the Mobile App."

Next, the lessons would move the original stimulus into working memory by drawing on the learners' long-term memory. The instructors will need to relate the stimulus to something the learners already know to drive home the meaning of what they are learning, thus beginning the process of encoding new information. Driscoll (2005) states, "Encoding refers to the process of relating incoming information to concepts and ideas already in memory in such a way that the new materials are more memorable" (p. 89). The consultants suggested relating new procedures with their past procedures as a "today-tomorrow" comparison to make the new actions more memorable. This can be done by illustrating the additional benefits of the new system as well.

To maximize the learners' working memory, the consultants decided to chunk the information covered in each course in a way that made logical sense. The new procedures and vocabulary would be introduced in small, logical bits rather than teaching the entire process in one sitting. For example, all employees need to know how to use the mobile app, so the consultants decided to teach by first accessing a product/service on the mobile app and then train the employees how to order a product/service on the mobile app as a separate session.

Long-term memory, the last stage of memory in CIP, is the stage that the consultants knew was the most important goal for the client. The consultants decided to teach the procedures using a process flow chart which includes key procedural steps and decision points in the overall process. They felt if they represented the steps as related concepts in a network model, then the learners would have an easier time storing the information as long-term memory.

In additional to storing the information as long-term memory, the consultants were focused on developing exercises and simulations to allow for easy retrieval from memory. They decided to implement the principle of encoding specificity which states, "…whatever cues are used by a learner to facilitate encoding will also serve as the best retrieval cues for that information at test time" (Driscoll, 2005, p. 101). To utilize encoding specificity, the consultants developed practice exercises and scenarios from actual business examples. Therefore, the learners would be able to retrieve the information in their actual work setting when the same scenarios occur. Additionally, the training sessions had multiple scenarios for each procedure to allow for maximum practice and repetition of procedures.

References

Driscoll, M. P. (2005). Psychology of learning for instruction (3 ed). Boston, MA: Pearson.