

Radiology Technology: An Examination of the Transfer of Training through Continuing Education

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Abstract: This paper discusses the transfer of training as it relates to mandatory continuing education for the radiologic technologist. Through continuing education the technologists' satisfy their requirements for recertification and/or licensure. Continuing education should provide a method to maintain competency, however, attitudes determine the success of learning outcomes.

The Professional Licensing Report of 1998 states, “more licensing boards in more states than ever are requiring continuing education classes of their licensees (as cited in Duerhring and Ward, 2001, p. 2). Licensing is a means by which the state has the authority to grant an individual permission to practice within that state. In radiology technology only 34 out of 50 states require state licensing for certification within that state.

In 1991, the American Registry of Radiologic Technologists stated that it would begin implementing continuing education for renewal of registration of certificates. In 1995, continuing education became mandatory for renewal or reinstatement of registration. The American Registry of Radiologic Technologists defines registration as “the annual renewal of the certificate’s validity” (2002). A certificate is given to an individual after completing all eligibility requirements and successfully passing the national certification exam; this is a one-time award. Certification is a means of reassuring the general public and the medical community that an individual is competent in skills and knowledge to perform within the profession.

“Continuing education helps you keep pace with a competitive world” (the American Society of Radiologic Technologists, 2002) and is a method for healthcare professionals to satisfy their responsibility to maintain competency and prevent their skills from becoming outdated. According to the American Society of Radiologic Technology Code of Ethics #10, “the radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing with colleagues and investigating new aspects of professional practice” (2002). The Study of Selected Occupations reveals that there is a correlation between success and continuing education, confirming the significance of continuous training for today's workforce (O'Shea, Betsinger, & King, 1999).

As medical technology continues to advance, transfer of training through continuing education plays a major role in the healthcare industry. Although assumptions can be formulated that the radiologic technologist participates in continuing education because it is required for recertification, it is the ethical responsibility of all technologists to maintain competency throughout their professional career. How this is achieved is an individual goal that each technologist must define to satisfy personal and professional growth.

Transfer of Training

Transfer of training originates in industrial psychology (Ottoson, 1997) and means to convey or remove from one person, place or situation to another (Webster's Dictionary, 1991). Perkins and Salomon state that transfer happens in two different ways: low road and high road transfer (as cited in Fogarty, Perkins, & Barell, 1992). Low road transfer occurs when

similarities between a new situation and an old one sparks the application of old knowledge and skill. High road transfer is when a person mindfully abstracts characteristics from an old situation and uses it in a new one. Oliver Wendall Holmes captured the concept of transfer when he wrote the three-story intellect (as cited in Fogarty et.al, 1992).

There are one-story intellects, two-story intellects, and three-story intellects with skylights. All fact collectors who have no aim beyond their facts are one-story men. Two-story men compare, reason, generalize using the labor of fact collectors as their own. Three-story men idealize, imagine, predict ---Their best illumination comes from above the skylight (p xi).

Holmes distinguishes between the three different degrees of transfer. The first level has fact collectors; they are only interested in continuing in their present state of being and are not interested in the transference of any new training or knowledge. At the second level, information is being assimilated, with only a small amount being transferred. At the third level, success is finally met and the individual is truly transferring.

The transfer of training is defined as the effective and continuing application of newly acquired skills on the job (Broad 1997; Ford & Weissbein, 1999). Transfer of training simply means the use of a new content of knowledge and skills acquired in an earlier context. The knowledge or skill transferred can be very specific or very general--for example, a theory, a principle or a skill. If real transfer takes place, the learner carries over something they learned in one context and applies it to a significantly different one. This is a reflective process rather than a reflexive one.

In transfer of training, the reflexive process is characterized by habitual and unthinking behavior. For example performing the same procedure memorized from the textbook. The reflective process expresses a thought or opinion resulting from reflection. The reflective process integrates the critical thinking component, which is crucial when working in the clinical setting. At times educators wonder why the learner is not able to apply these critical thinking skills. Bailey states that there are several factors that affect the participants' failure to learn such as program structure, lack of commitment from the learner, and different expectations between the educator and learner (1991). Although skills taught in training transfer to the workplace they vary according to personal, instructional and organizational factors (Parry, 1990).

According to Richey (1991) there seems to be a correlation between adults' attitude and training programs and the fundamental success or failure of educational programs in regards to what was learned and what was transferred to the workplace. In addition, higher levels of motivation do not necessarily mean that the learners are equipped to work and learn (Usuki, 2001). Aristotle stated "that human beings naturally seek to know and value knowledge to help us evaluate choices, make decisions and keep us from ignorance" (Gutek, Carpenter & Moreno, 1997).

Summary

In Radiologic Technology, continuing education is required for relicensure and/or recertification. Through continuing education, the transfer of training and attitude could enhance the technical skills and expertise of the technologist by suggesting new information and methods. The subject matter for continuing education should reflect the educational needs of the radiographer that will enable them to meet the health care needs of the customer.

Although attitudes and personal skills are required to obtain specific learning outcomes, Duerhring and Ward (2001) state, "that the technologist's attitude toward continuing education

makes all of the difference.” Attitude can be either positive or negative and has strong implications on behavior. "Attitudinal change does not rest on the basis of information itself; a more significant determinant is the nature and degree of the adult's ego involvement" (Kirchner & Wilder, 1959).

The transfer of training is the effective and continuing application of newly acquired skills on the job and should be done with fidelity and precision since the lives of patients depend on it. The technologist must be proficient and have the capability to perform satisfactorily in every given opportunity. The notion of proficiency facilitates the understanding of adult motivation and achievement in both learning activities and life roles (Knox, 1980).

Even though there are various ways to fulfill the continuing education requirements, such as attending in-services, conferences, completing self-study programs or online courses, there is still debate over the time, money and value of continuing education (Fiske, 2002). Regardless of the debates over continuing education the technologist should develop a higher cognitive level, a passion for their work and confidence that will endure through the many obstacles they will face in their professional career.

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