New Core Competencies for BCPE Certification in USA

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Introduction
The Board of Certification in Professional Ergonomics (BCPE) was established in 1990 and represents 1,222 certificate holders, of which 164 are associates, on their way to becoming full BCPE certified professionals. These individuals represent BCPE’s mission to support a standard of competency and advocate the value of certification. BCPE earned recognition from the International Ergonomics Association (IEA) in 2001. BCPE adheres to guidelines of the Institute for Credentialing Excellence (ICE) that oversees the National Commission for Certifying Agencies (NCCA), which accredits certifications in the U.S.A. Such guidelines lead BCPE to provide a “gold standard” certification in Human Factors/Ergonomics (HFE).

BCPE offers one comprehensive certification in HFE; there is one main application and one exam. Candidates choose ‘Certified Professional Ergonomist’ (CPE), or ‘Certified Human Factors Professional’ (CHFP) or ‘Certified User Experience Professional’ (CUXP) as their designation according to the domain in which they work. The achievement of BCPE certification is testament that the professional has a base level of knowledge and skill and he or she has an understanding of the field as a whole; BCPE certified professionals “know what they do not know”.

Education
The certification process emphasizes education in HFE over training. Professional certification tests pre-acquired knowledge and skill against a standard, whereas a certificate is provided after assessment of knowledge and skill learnt during a specific training program. BCPE supports the view that an education in HFE provides more in-depth understanding of the field. The minimum credits in education required for certification, across the core competencies, amounts to a master’s degree. However, only a bachelor’s degree is the required minimum, not a master’s degree. This requirement allows for individuals with more unusual backgrounds to acquire an HFE education through educational courses without attaining an advanced degree.

BCPE supports education in other ways. The Associate level of certification is offered as a stepping-stone towards full certification and is attained by fulfillment of the educational requirements. The Associate (AEP, or AHFP, or AUXP) has six years in which to gain three years, full time equivalent, of HFE experience, and apply for full certification. Many graduates of HFE programs have chosen to apply for Associate because they feel the certification will help them attain a job.

In the U.S.A. candidates are requesting review courses as well as educational courses for exam study and to complement their background. Good practice of a professional certification body does not permit providing courses because so doing is considered a conflict of interest. However, there are more online degrees and specific education courses in HFE today than only a few years ago.

Core Competencies
Core competencies of BCPE certification are developed by Subject Matter Experts (SMEs) and then validated through a survey of practicing BCPE certified professionals. The exam has to reflect the validated core competencies. Periodic review, including a five to seven year role delineation study (SME review plus field practice validation) keeps the core competencies and exam up to date. The education requirement for certification is independent of such validation but BCPE has formerly aligned it with the core competencies and will be looking to align educational requirements more closely with those of the Human Factors and Ergonomics Society (HFES) program accreditation. Education is considered an important requirement
because of the diversity of the profession and the mission to be a comprehensive certification. The BCPE educational requirement delineates the core education across the breadth of the field.

The current core competencies of BCPE are curriculum style and the educational requirement is also connected to them. In 2014-2015 BCPE conducted a review and field validation of the core competencies and the language is very different. The competencies are anchored on core tasks of HFE practice that can be expected from someone with 3 years experience. There are four sections: Analysis, Design, Validation and Implementation. Under each section are approximately 3-7 tasks and each task has a list of knowledge and skills. Questions for the exam will be written based on the knowledge and skills. Education requirements are now independent of the core competency format and will appear in a curriculum style.

Industry in the U.S.A. is interested in certification as a whole. Knapp et al. (2007) surveyed 125 certification organizations in 23 industries, and found that of the certification bodies who surveyed employers, 66% of respondents cited the top three benefits of hiring someone with certification to be; independent verification of competency, greater productivity and efficiency, and higher quality of work. In the U.S.A., many government bodies express preference for or requirement of HFE certification, for example, the Occupational Safety and Health Administration (OSHA). HFE professionals who serve as expert witnesses in litigation typically have certification credentials because of lawyers’ expectations. Students applying for the associate level of certification assume the credential will give them an advantage in job hunting.

Challenges

Challenges remain promoting certification. One challenge is continuing to convince HFE colleagues, who work in fields without market forces that encourage certification, that there is a value in certification, both to the individual in professional development and for the cohesion of the profession. Promoting the value of HFE has always been difficult for our relatively small profession. The government can have an effective role in highlighting the value of HFE, for example, the US Federal Drug Administration mandates HFE studies be conducted on all medical devices before market. The heightened awareness of the value of HFE contributions raises the competition and credentials of those providing the services, which in turn, increases demand for certification. On the education front, if a core curriculum and competencies for practice are clearly defined, there is encouragement for universities to provide relevant courses. Hopefully, there will be an increase of courses offered that are independent of a degree and so available to individuals looking to complement their academic background. BCPE continues to update core competencies through field studies, align educational requirements with those of HFES accreditation, and promote the value of certification to colleagues and consumers of HFE.

References