

Research Digest

CTTE/ITEA NCATE

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The technology teacher education profession has entered a new era not only because of the switch to technology as the knowledge base, but also because of the adoption of the CTTE/ITEA Guidelines by NCATE as the official standards against which all technology teacher education programs seeking NCATE approval will be evaluated. Although the Guidelines are presumed to have a positive influence in shaping these programs, one recognizes that other factors and other groups have, perhaps, an even stronger shaping influence. These would include internal administration and faculty, other accrediting associations such as NAIT, public school teacher demand, and last, but not least, the state certification requirements and entitlement program. The question being addressed by this study is: To what extent are state plans and certification requirements complementing the CTTE/ITEA Guidelines, and to what extent are the states causing deviation from the Guidelines?

In consideration of the impact that the state has on teacher education programs, a survey instrument was sent to the 50 state supervisors of technology/industrial technology/industrial arts education in September, 1989. Information was sought regarding (1) the state plan name, (2) curriculum design, (3) the degree to which the state schools have adopted the state plan organizers, and (4) state requirements regarding two technology related academic content areas that are included in the CTTE/ITEA Guidelines. Thirty usable responses were received for a 60 percent return.

Figure 1 lists the various names used by the states. Five states still use Industrial Arts in the title while ten states (32 percent) use the ITEA/CTTE preferred term "Technology Education." The name chosen by the largest number of states is "Industrial Technology."

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Figure 1. Name of program (n=30).

The organizers used in designing the curricula in the responding states as identified in Figure 2, show a dominant technology education bias with considerable variation. Only one state still uses the more traditional industrial arts subject matter designators exclusively, while three others use these in addition to some set of technology organizers. But only 40 percent use the ITEA/CTTE preferred list of four organizers. Teacher preparation programs in all of the other states, if they complied with the state organizers, would be expected to explain their deviation, however slight (which most are), from the ITEA/CTTE Guidelines. Perhaps the most interesting set of organizers reported in this study is being developed by Arizona. In addition to transportation and communication are categories such as “mechanisms, controls, structures, etc.”

Figure 2. Organizers used by states (n=30).

In response to the question regarding the date of the organizer change, 23 of the 30 respondents—a significant majority—stated that their states had changed since 1980 with the dates indicated in Figure 3. Nearly 75 percent (17 of 23) had undergone the change since 1985. This is perhaps the greatest amount of change in the shortest period of time in the history of state supervision of industrial arts/technology education.

Figure 3. Year organizers were changed (n=22).

With this much change in the last five years at the state level, one would expect the public schools to be lagging. The cold reality is that the market still dictates which teachers get jobs, i.e., those prepared to teach more traditional programs or those prepared to teach technology education. In an attempt to determine the degree to which the public schools are in step with their respective state curricula, the respondents were asked how many schools in their states complied with the new organizers. Those responses, shown in Figure 4, ranged from 25 percent to 100 percent. Several supervisors responded somewhat cynically with, “Depends on whom you ask,” “Who knows?” and, “Saying it doesn't make it happen.”

Finally, an attempt was made to ascertain the degree to which states were requiring prospective teachers to take coursework in global studies and the socio/environmental impact of technology. The ITEA/CTTE Guidelines call for content in both of these areas in the competencies section. As shown in Figure 5, over half (15 of 26) of the respondents to this question require neither area while only 3 require both. Socio/environmental impacts studies were more likely to be required (35 percent - Figure 6) than were global studies (15 percent - Figure 7).

Figure 4. Percent of schools following new organizers (n=22).

Figure 5. States requiring related coursework in international/global dimensions and social/environmental impacts (n=24).

These data clearly show that the ITEA/CTTE NCATE Guidelines are not fully supported by state certification requirements although considerable progress has been made in the last five years. The ITEA/CTTE Guidelines themselves were developed in the last five years, but by a more homogeneous group of educators than is represented by the state supervisors and the state programs. How are NCATE folio reviewers to respond to such variations among states? Certainly, in many academic areas the state does not dictate the teacher preparation program. For example, just because the state does not require international/global studies and socio/environmental impacts as part of the certification requirements, does not prevent a teacher preparation program in that state from requiring them unilaterally. On the other hand, for an institution to serve the state and the schools within that state, the program must include the state-approved organizers in order to certify students.

Figure 6. States requiring a course on socio/environmental impacts of technology.

Figure 7. States requiring a course on international/global dimensions of technology.

Our discipline is currently in a state of flux, although by far the majority of movement is in one direction: technology education with the four organizers - communication, transportation, construction, and manufacturing. States have been slower to recognize the need for course work in the international/global dimensions and impacts of technology. Considering the relative status of state plans and the necessity for teacher education programs to comply with state requirements, the rigid application of CTTE/ITEA Guidelines by the folio reader/evaluators may be three to five years premature. °