

AWARDS for INNOVATIONS
Professional Development for CTE Teachers in Illinois
(Formerly titled Professional Development for Pre-service and Beginning Practicing Teachers)

Final Report

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Professional Development for CTE Teachers in Illinois

Rationale:

Professional development is the “sum of formal and informal learning experiences throughout one’s career from preservice teacher education to retirement” (Fullan & Steigelbauer, 1991, p. 326). Professional development provides teachers with information needed to meet the challenges of guiding all students in achieving higher standards of learning and development. The range of topics included in professional development is vast and goes from developing the necessary knowledge and skills to improve classroom practice to adapting to innovations such as new curriculum, technology, and pedagogy. Career and technical education (CTE) teachers require a wide variety of professional development opportunities due to the nature of the content they teach and the variety of responsibilities associated with CTE. Teachers of CTE must be able to teach occupational skills, meet the needs of specific populations, integrate academic and occupational instruction, coordinate school- and work-based learning, manage work-based programs, and prepare students for both the workplace and postsecondary education. The complex nature of the career and technical educators’ professional development needs poses a challenge for school districts throughout the United States.

While there are studies pertaining to the professional development of teachers in general, there are few studies directly related to the specific needs of CTE teachers in Illinois. The need for this study is also authenticated by legislative mandates such as No Child Left Behind and the Career and Technical Education Improvement Act.

Objectives:

This research was conducted in order to provide insight into the professional development needs of Illinois CTE teachers. The objectives were to:

1. Identify the professional development needs of CTE teachers in Illinois.
2. Determine what motivates CTE teachers to participate in professional development.
3. Determine what barriers prevent CTE teachers from participating in professional development.

How the Project Will Improve and Positively Impact CTE in Illinois:

This project will improve CTE in Illinois by addressing the professional development needs for CTE teachers in Illinois. One of the challenges of professional development lies within the substance of the professional development. The one size fits all teacher inservice is ineffective and out dated. Teachers must feel the topic is worthwhile for them to truly become involved. While there have been studies that have investigated teachers' interests and desires to learn more in order to become better prepared, there are few studies that address the specific professional development needs of CTE teachers in Illinois. Identifying the specific needs of CTE teachers in Illinois is important, but teacher participation is mutually important. With only a limited amount of time and resources available to teachers, participation in professional development opportunities has been steadily declining over the past several years. Therefore, in addition to identifying the professional development needs of CTE teachers, this study will also identify the motivators as well as the barriers to teacher participation in professional development opportunities. The results of this study will undoubtedly provide administrators, system directors, the Illinois Department of Education and universities with the information they need to improve the quality, relevance, and participation in professional development opportunities.

Research Methods:

After researching the subject of professional development and reviewing several existing surveys, the researchers designed a survey to specifically address the needs of career and technical education teachers in Illinois. Eight subject matter experts reviewed the survey. The subject matter experts consisted of one college professor, one education specialist from the Illinois Office of Educational Services, two preservice teachers, two new teachers (less than 5 years of teaching experience) and two experienced teachers (more than 5 years teaching experience). The subject matter experts' responses were collected and reviewed by the researchers. The college professor and the education specialist reviewed the survey and suggested that the population of the study include all CTE teachers in Illinois instead of limiting the population to preservice and new teachers. The subject matter experts also suggested that preservice teachers be eliminated from the study due to the fact that professional development needs for preservice teachers are specialized and would be better served by an independent study. In addition, the two

preservice teachers indicated that they had some difficulty in completing the survey. It was thereby determined by the researchers that the original population of preservice and new teachers be revised to include all CTE teachers in Illinois and exclude preservice teachers. The survey was also tested for internal consistency using SPSS and resulted in a Cronbach's alpha of .945. The survey was formatted for online delivery by the Center for Academic Technology Support at Eastern Illinois University and tested by the researchers.

A population of 3,969 career and technical education teachers was generated from two sources. The Illinois Board of Education published a list of all 2005-2006 teachers in the state of Illinois on the Web site http://www.isbe.net/pubs/tsr_data/default.htm. The names of all teachers in the areas of agriculture (48), business education (1,592), family and consumer sciences (1,752), health occupations (77) and (industrial) technology education (1,770) were extracted from this source and combined into one list. It was then determined that the generated list needed to be supplemented with newly hired teachers. Therefore, the members of the Illinois University Council were contacted and asked to supply the researchers with the names of all graduates from the career and technical teacher education programs within the last five years. This list was then cross checked with the list that was generated from the Illinois Board of Education Web site. From this list, all non-comprehensive and private schools as well as all elementary and middle schools were eliminated from the study. The total population of the study was 3,969 career and technical education teachers. From the list, 1,125 teachers were randomly selected to participate in the study. Email addresses were collected from school Web sites and postcards were sent to participants that could not be reached by email. To date, 238 responses have been received. Follow up procedures, which include the mailing of surveys and telephone contact, are currently being conducted.

Objectives:

1. *Identify the professional development needs of CTE teachers in Illinois.*

This objective was partially addressed by examining the descriptive results from the knowledge and performance level questions on the survey relating to Illinois Professional Teaching Standard 10: The teacher is a reflective practitioner who continually evaluates how choices and actions affect students, parents, and other professionals in the learning community and actively seeks opportunities to grow professionally.

Participants were asked to rate their level of knowledge (rating scale: Low , Medium, High) in each of the following areas:

- Item 10A: At what level is your knowledge or understanding of the use of reflection as an integral part of professional growth and improvement of instruction?
- Item 10B: At what level is your knowledge or understanding of the methods of inquiry that provide for a variety of self-assessment and problem-solving strategies for reflecting of your work as a teacher?

- Item 10C: At what level is your knowledge or understanding of the major areas of research on the learning process and the resources available for professional development?
- Item 10D: At what level is your knowledge or understanding of teachers' attitudes and behaviors that may positively or negatively influence behavior of individuals with disabilities?

Survey results are depicted in Table 1:

Item Number	Mean
10A	2.48
10B	2.27
10C	2.02
10D	2.35

Participants were asked to rate their level of performance (rating scale: Low, Medium, High) in the following areas:

- Item 10E: At what level are you able to use classroom observation, information about students, pedagogical knowledge, and research as sources for active reflection, evaluation, and revision of practice?
- Item 10F: At what level are you able to collaborate with other professionals as resources for problem solving, generating new ideas, sharing experiences, and seeking and giving feedback?
- Item 10G: At what level are you able to participate in professional dialogue and continuous learning to support your own development as a learner and a teacher?
- Item 10H: At what level are you able to actively seek and collaboratively share a variety of instructional resources with colleagues?
- Item 10I: At what level are you able to access your own needs for knowledge and skills related to teaching students with disabilities and seek assistance and resources?

Survey results are depicted in Table 2:

Item Number	Mean
10E	2.38
10F	2.40
10G	2.39
10H	2.25
10I	2.18

Section 2 of the Professional Development Survey also addressed the specific needs of CTE teachers in Illinois by examining the participants' ratings of the likeliness to

participate in various professional development opportunities (rating scale: Not Likely, Somewhat Likely and Very Likely).

The professional development opportunities participants ranked as the most likely to participate were:

- Developing, improving, and expanding the use of technology for instruction (2.73).
- Developing critical thinking and problem solving skills in students (2.68).
- Developing teamwork skills in the classroom and beyond (2.63).
- Developing meaningful work-based learning (2.60).
- Developing and sharing methods of teaching in your subject field (2.55).

The professional development opportunities participants ranked as “not likely” to participate were:

- Conducting an in-depth study in your subject field (1.92).
- Collecting data, using basic statistics, and using database software (1.81).
- Examining the grant writing process and locating grant opportunities (1.78).

In addition to the above findings, an open-ended question was included asking participants to identify the professional development related opportunities they felt would increase the retention of CTE teachers. The responses to this question include:

- Activities that teach administrators to be more sympathetic to the individual teaching needs of CTE teachers so we don't burn out due to all the work we do.
- More opportunities to meet with experienced teachers from established successful courses to provide mentoring and support.
- Working with special needs population.
- Up-to-date technological resources and incorporation of those materials in daily lessons.
- Subject-specific skills.
- Getting dollars for up-to-date equipment.
- The work environment and salary would do more to increase the retention of CTE teachers than professional development related opportunities. Teachers in general are overwhelmed and are leaving the profession.
- Peer support and teaching evaluations.
- Professional development related to new developments in the field of concentration and ways to improve teaching such as classroom management.
- Opportunities to verify that curriculum meets math and English components for graduation and what consideration is used for “highly qualified” for courses like accounting, consumer education, math and computer science for math credit.
- Career specific user groups.
- Workshops on collaboration and sharing of ideas and curriculum between colleagues.

- Up-to-date training on computer software.
- Funding for projects!
- Being allowed to attend conferences.
- More sessions at inservice times that relate directly to CTE.
- A support outlet to allow teachers an opportunity to support each other during trouble times.
- Disaggregating CTE into more specific groups. Limit the generalized approach.
- Being able to walk away from professional development with classroom specific ideas is tremendously helpful.
- We need to be able to more fully connect what we provide to the students with the core courses of English, math, science and legitimize the existence of CTE.
- Curriculum. I have the most difficult time trying to coordinate all of the skills my students need to learn in the time I have with them.
- Developing community partnerships.

2. *Determine what motivates CTE teachers to participate in professional development.*

This objective was addressed by examining the responses to Section 4 of the survey, which asked the participants to identify what motivates them to participate in professional development. The responses to this question include:

- The encouragement and support I receive from my family and friends (n=237).
- The recognition provided by my colleagues at local, state, national and international levels (n=235).
- My commitment to lifelong learning (n=231).
- My school's structured reward system that encourages teacher growth (n=228).
- My colleagues and collegial work environment that nurtures teacher professional growth and collaboration (n=224).
- My principal's devotion and support for teacher professional development (n=224).
- My individual need for wanting to become a better teacher (n=222).

This section also included an "other" option whereby participants were asked to specify what motivates them to participate in professional development. The responses to this option include:

- Students
- Advancement
- Pay Increase/Financial Incentives
- Certification
- CPDUs

Participants were also asked to rank order various types of support that would motivate their participation with the #1 ranking indicating the highest motivator. The responses to this question include (n=number of #1 ranking):

- Competent substitute teacher (n=40)
- Stipends (n=28)
- CPDUs (n=22)
- Travel and/or reimbursement (n=12)
- Release time for teaching (n=11)
- Scheduled time (n=8)
- Tuition and/or reimbursement (n=3)

3. *Determine what barriers exist for CTE teachers in professional development*

This objective was addressed by examining the responses to Section 4, Part III, which asked the participant to identify the barriers that prevent them from participating in professional development. The responses to this question include:

- The climate of competition for obtaining support to attend professional development related opportunities in my school district prevents me from attending professional development opportunities (n=236).
- Family issues such as the lack of family support or child care prevent me from attending professional development opportunities (n=235).
- I have no time in my schedule to participate in professional development opportunities (n=229).
- My school's budget lacks funding for professional development opportunities (n=229).
- The professional development related opportunities I have attended in the past did not meet my needs (n=229).
- My administrator's passive or active opposition for teacher professional development prevents me from attending professional development opportunities (n=228).
- I lack the motivation to attend professional development opportunities (n=227).

Participants were also given the option of choosing the "other" option with instructions to specify what other barriers prevent them from participating in professional development. These responses include:

- Time conflict.
- Don't like to be away from school.
- The cost.
- I am two years away from retirement.
- Lack of topics within my field.
- I have an evening and weekend job.
- Dates, time and financial support.
- It is difficult with kids to get away.
- It is more work to prepare activities for substitute.
- I hate to leave my students.

- I don't really have any barriers.
- I am at the top of my pay scale.

Findings:

While the results indicate that teachers rate their level of knowledge and performance in relation to the Illinois Professional Teaching Standard for Professional Development at the medium level, the findings indicate that professional development needs of CTE teachers in Illinois include research on the learning process and the resources available for professional development, skills related to teaching students with disabilities, collaboratively sharing a variety of instructional resources with colleagues, and methods of inquiry that provide for a variety of self-assessment and problem-solving strategies for reflecting of work as a teacher. Teachers also indicated that they would be more likely to participate in professional development opportunities focused on technology and developing critical thinking, problem-solving and teamwork skills in students as well as work-based learning and collaborating with other teachers in their subject area. The open-ended questions generated several responses relating to the need for professional development for the integration of CTE courses and math, science and English content.

In relation to what motivates teachers to participate in professional development opportunities, the findings indicate that teachers are motivated by encouragement by their families, recognition from their colleagues as well as their commitment to life-long learning. The findings also indicate that types of support teachers feel would motivate them to attend professional development opportunities include competent substitute teachers, stipends and CPDUs. Some of the barriers that prevent teachers from participating in professional development opportunities include the climate of competition for obtaining support, family issues, and the lack of time. Some of the other reasons cited for not participating in professional development include nearing retirement and reaching the top of the pay scale. On the other hand, teachers also indicated that a barrier preventing them from participating is that they love their students and they hate to be away from them.

The preliminary findings of this study were presented at the 2007 Connections Conference. In addition, a proposal has been submitted to Delta Pi Epsilon to present the findings at their annual fall conference.

References:

Fullan, M., & Steigelbauer, S. (1991). *The meaning of educational change* (2nd ed.). New York: Teachers College Press.