Kentucky career and technical teacher education programs/on-going issues

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KENTUCKY CAREER AND TECHNICAL TEACHER EDUCATION

PROGRAMS/ON-GOING ISSUES

Abstract

What is Career and Technical Education (CTE)? How does one identify and recognized strong CTE educational programs? And after one has answers to the first two questions, how does one successfully align CTE teacher education (CTTE) programs across large institutions such as colleges within universities, or in Kentucky's endeavor within universities across the commonwealth offering various CTE programs. A multi-year educational project designed and implemented through the Kentucky Career and Technical Teacher Education Conference planning committee has created a plan to strengthen Kentucky CTE. The process to identify the issues and concerns with a formulation of the plans of actions could be of use to any organization.

Keywords – Career and Technical Education, Teacher Education

Kentucky Career and Technical Teacher Education Programs/On-Going Issues

In defining career and technical education one must view it in a broad sense. The Association for Career and Technical Education (ACTE) provides the following information in a fact sheet on their website:

> ➢ "Career and Technical Education (CTE) prepares both youth and adults for a wide range of careers and further educational opportunities. These careers may require varying levels of education—including industry-recognized credentials, postsecondary certificates, and two- and four-year degrees.
>
> ➢ According to the U.S. Department of Education's Office of Vocational and Adult Education (OVAE), almost all high school students take at least one CTE course, and one in four students take three or more courses in a single program area. One-third of college students are involved in CTE programs, and as many as 40 million adults engage in short-term postsecondary occupational training.
>
> ➢ The most recent Report to Congress on the Carl D. Perkins Career and Technical Education Act revealed that approximately 14 million students participated in secondary and postsecondary CTE programs during the 2007-2008 school year.
>
> ➢ CTE is at the forefront of preparing students to be "college- and career-ready." CTE equips students with:
>   - *core academic skills* and the ability to apply those skills to concrete situations in order to function in the workplace and in routine daily activities
>   - *employability skills* (such as critical thinking and responsibility) that are essential in any career area
>   - *job-specific, technical skills* related to a specific career pathway

> ➤ Within CTE, occupations and career specialties are grouped into "Career Clusters." Each of the 16 clusters is based on a set of common knowledge and skills that prepare learners for a full range of opportunities.
> ➤ Further specialization is achieved through comprehensive Programs of Study, which align academic and technical content in a coordinated, non-duplicative sequence of secondary and postsecondary courses, and lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.
> ➤ Career and technical student organizations (CTSOs) are an integral part of CTE. CTSOs prepare young people to become productive citizens and leaders in their communities by providing unique programs of career and leadership development, motivation, and recognition for students enrolled, or previously enrolled, in CTE programs."

A discussion of a two-year process where Kentucky CTE teacher educators and state CTE leaders used the 2009 and 2011 Kentucky Career and Technical Teacher Education Conferences proceedings with a continual theme "Aligning Career and Technical Education" to create open discussions and plans on how to better align Kentucky CTTE programs is provided. This two year process has given Kentucky leaders a state-wide plan of action to improve CTTE programs and address on-going CTE issues. An earlier article with a background discussion of the 2009 Kentucky Career and Technical Teacher Education conference was published in Research in Higher Education Journal. A summary of that process is followed by a detailed discussion of the 2011 conference and the resulting plan of action.

Discussion of the 2009 conference

As stated in the earlier publication the February, 2009, Kentucky Career and Technical Teacher Education Conference's theme "Aligning Career and Technical Education" allowed planning for a collaborative effort among Kentucky universities; the Kentucky Office of Career and Technical Education; the Kentucky Department of Education, Secondary Division of Career and Technical Education; and the National Research Center for Career and Technical Education. The conference provided an environment where university faculty and state department leaders heard up-to-date data concerning national CTE initiatives and concerns. Following several presentations to the overall conference body in general sessions, conference participants were divided into breakout groups charged with discussing the earlier presented data and listing issues and concerns for KY CTE. Summaries of group discussions and findings concerning the following issues were presented by group leaders in the ending conference general session:

- Relevance of CTE Teacher education curriculum
- Aligning KY CTTE programs
- CTE image/identity
- Integration of CTE and academics
- The need for teacher education leadership
- CTE teachers should be prepared to be student organization advisors

- CTE teacher's education requirements
- CTE teacher recruitment and retention/teacher shortage

A more detailed description of the planning process and resulting actions are provided in the earlier publication.

Discussion of 2011 proceedings and procedures

The 2011 Kentucky Career and Technical Teacher Education Conference agenda was designed to provide a means to re-visit the issues and concerns as decided in the final wrap-up session of the organization's 2009 conference proceedings. The 2011 conference planning committee was charged to plan an environment which would provide up-dates on the status of Kentucky CTE followed by a re-visitation of the issues addressed in the previous conference. Plans of action to address the issues were to be created.

Conference agenda

Appendix A

Group procedures and make-up

Discussion groups were designed with an effort to allow representation of university teacher educators, state level technical program coordinators and upper state level education administrators. Group facilitators were selected and charged to follow a common format to be used by all groups. CDs with the common format were provided for each group along with LCD projectors and screens. (Appendix B) This provided a means for group participants to focus on stated issues and to record group progress and final recommendations and plans of action. Each group using a common format and procedure was charged to:

- expand and clarify the issues identified in the 2009 conference.
- write goals and objectives to address the issues.
- follow a common format to create a plan of action.

The plan of action format document provided a means to gather information on group participants, re-visit the issues, and answer the following questions:

- "What needs to be done?
- By whom and when?
- What recourses were needed?

Groups were asked to choose a recorder assuring their work was well documented. Choosing group leader with the skills to facilitate free discussion is paramount when planning. Selecting multiple facilitators from the various areas of interest helped to eliminate bias in final group discussions and recommendations. A summary discussion of individual group findings follows.

Teacher induction

The group dealing with new teacher induction expressed the need for a strong new teacher induction program. The new teacher mentoring process needed to be strengthened. A re-defining of first year teaching requirements, teacher education programs, new teacher salaries and the overall image of Kentucky CTE was suggested.

Kentucky needs to address CTE's image. New CTE teachers entering Kentucky classrooms are often discouraged by the typical high school student enrolled in their classes. Teachers find themselves concerned with the apathy student's show toward their class content. CTE teachers often indicate they feel their programs are seen as sub-standard. This concern can cause a new teacher to become disillusioned with teaching.

Identifying and Aligning KY CTE/CTTE Programs

The group charged with identifying and aligning KY CTE/CTTE programs indicated the need to better align all CTE teacher education programs. Various titles for CTE teacher education programs at individual state universities, different course titles and descriptions, different teacher education entrance and program requirements; all these concerns were indicators suggested by group findings that a better alignment of Kentucky was needed. The group emphasized the idea that since all universities were developing their programs to address Kentucky's Teacher Standards and the Kentucky Education Professional Standard Board's licensing requirement for CTE teachers, this was an obvious concern to be addressed.

The discussion went beyond university CTTE programs. It also expressed the need for all Kentucky educators to better understand CTE. A marketing plan to help Kentucky educators understand CTE's role in the educational process was needed. The fact that not all Kentucky CTE secondary and post secondary institutions were represented at the state conference was a major indicator that everyone was not on board with CTE's identity. It was suggested that a marketing plan be created to address the following:

- Kentucky CTE's identity.
- The building of better relationships across all education institutions.
- Procure better funding for CTE programs.
- Align CTTE programs including all Kentucky CTE institutions.

Integration of CTE and Academics

The integration of CTE and Academics was the next major area of concern. After years of Tech Prep related state initiatives Kentucky teacher educators still felt there was a need to strengthen the relationship between CTE and academic teachers. The group identified the need to train all teachers, CTE and academic alike, in the skills and tools to work together professionally. Kentucky initiatives designed to support career pathways for high school students was consider a

driving force for a higher level of professional cooperation among teachers. Integration methodology should be taught in all teacher education programs. All stakeholders, educators, industry, parents, administrators, and students should be made aware of the need for integration of CTE and academics.

<div align="center">Addressing Student Organizations in CTE/CTTE Programs</div>

Addressing student organization in CTE/CTTE programs is the final area of discussion. The group felt the need for stronger emphasis on student organizations in CTTE programs and in state planning. There needs to be better funding, more buy in among educators, better training for new teachers in working with student organizations, and better acceptance by administrators dealing with the day to day workings of schools. Student organizations need to be an intricate part of the educational process. Teacher education programs need assure that new teachers are prepared to accept and work with student organizations. A stronger pre-service in-service teacher education emphasis was needed.

<div align="center">Summary</div>

A multi-year educational project designed and implemented through the Kentucky Career and Technical Teacher Education Conference planning committee has created a plan to strengthen Kentucky CTE. The conference proceedings for two yearly meetings, not consecutively due to a one year meeting cancelation, has provided Kentucky CTE educators with plans of action to address identified CTE issues and concerns. The process to identify the issues and concerns with a formulation of the plans of actions has been described. The plans of action (Appendix D) will be a guiding force in strengthening Kentucky CTTE and CTE programs.

Appendix A

2011 Conference agenda

First day proceedings

8:00 - 8:30am	Conference Registration (Thomas L. King Leadership Center)
	Continental Breakfast
8:30 - 8:45 am	Welcome and Charge
	Ed Workman, Chair, KY CTTE-UCC
8:45 - 10:15 am	"The CTE Teacher in the 21st Century"
	Debbie Anderson, KDE
	John Marks, OCTE
10:15 - 10:30 am	Break
10:30 - 11:30 am	"Career Readiness in Kentucky: Recommendation and Guiding Principles"
	Ken Tally, Jefferson County Schools
11:30 - 12:30 pm	Lunch
12:30 - 1:15 pm	"Program Review"
	Rae McEntyre, KDE Assessment Liaison
1:15 - 2:00 pm	"Focus on Kentucky, Full Session Planning"
	Joyce Stubbs - Morehead State
	Ed Workman – NKU
2:00 - 2:15 pm	Break
2:15 - 4:00 pm	"Group Issues and Concerns Work Sessions//Goals and Objectives" 2011

Second day

8:00 - 8:10 am	"Opening Remarks"
	Ed Workman – NKU
8:10 - 9:00 am	"Kentucky Career & Technical Education"
	Tim Thornberry - OCTE
9:00 - 9:15 am	Break
9:15 - 10:45 am	"Group Issues and Concerns Work Sessions//Goals and Objectives"
10:45 - 11:30 am	"Group Reports/Focus on Kentucky"
11:30 - 12:30 pm	Lunch

Appendix B
Group Format
KY Career and Technical Education

Person Completing the Form	Organization
Breakout Group	Dates
Group Participants	

Article I: Issues

Article II: Action Plan

Statement of Objectives/Goals:

IMPLEMENTATION		
What needs to be done?	By whom and when?	What resources?

Appendix C
Group Facilitators

Group 1: Teacher Induction
      - Facilitators: Judy Payne, Murray State University & Jack McElroy, OCTE
Group 2: Identifying and Aligning KY CTE/CTTE Programs
       - Facilitators: Ed Workman, Northern Kentucky University; Joyce Stubbs, Morehead
         State University & Joe Morgan, OCTE
Group 3: Integration of CTE and Academics
       - Facilitators: Rita Davis, Eastern Kentucky University; Frank Kincaid, Eastern
         Kentucky University & John Marks, OCTE
Group 4: Addressing Student Organizations in CTE/CTTE Programs
       - Facilitators: Kathy Croxall, Western Kentucky University; Steve Phillippi, OCTE &
         Elizabeth Bullock, OCTE

Appendix D
Plans of Action

Teacher Induction

Person Completing the Form Todd Nickens	Organization OCTE
Breakout Group Teacher Induction	Dates 2/3/2011
Group Participants Todd Nickens, Pat Dennison, Karen Smith, Leslie Slaughter, Ahmad Zargari, Judy Payne, Brandon Wilson and Jack McElroy.	

Article I.   Issues

Our new teachers need more instructional help in the classroom and lab.

Article II.   Action Plan

Statement of Objectives/Goals:

What type of induction program can be recommended for both in-service and pre-service teachers to be more effective in the classroom and labs? Based on the fact that our new teachers need more instructional help in the classroom and lab, a state wide mentoring program would be an effective way to help new teachers that are experiencing specific instructional problems in their classroom.		
IMPLEMENTATION		
What needs to be done?	By whom and when?	What resources?
Improve Image	Everyone involved by 2012	Send CTE for me video to industry, advisory council, principals, counselors, post-secondary contacts, legislators, etc.
Improve Pay for teachers	Legislators by 2013	Legislators
One year mentoring program to provide a Support system for new teachers coming from business or industry	Assign a same discipline teacher as a mentor to each new teacher coming from industry during the first year of teaching by Fall of 2011	Lesson Plans and instructional Materials for all new teachers when they first start Teaching. This will also involve some extra dollars
Expand NEXT YEAR'S CONFERENCE: Bring in Industry partners, academic teacher educators and school administrators to get their views on Academics, Technical and Employability Skills. Get their suggestions on how this delivery system should be integrated, taught and measured.	Next year- conference planning committee by February, 2012	University Coordinating Committee, planning committee, state staff
Delay KTIP until the beginning of the third year of teaching or until methods of teaching courses have been completed.	Consult with EPSB about delaying KTIP for first two years for CTE teachers. One year delay is done for alternative certification teachers. complete by Fall of 2012	EPSB
NOTE: At the present time, the induction program that we have for secondary teachers coming from industry includes: 1. program consultants both In KY Tech and the Division of CTE in the Department of Education 2. FBTE program in the 5		

universities in Kentucky 3. NTI 5 – day / 3-day workshops 4. KTIP program for first year teachers during their first year of teaching		

Identifying and Aligning KY CTE/CTTE Programs

Person Completing the Form Joyce Stubbs	Organization Morehead State University
Breakout Group Identifying and Aligning KY CTE/CTTE	Dates 2/3/11
Group Participants Charles Gagel Wayne King Fred Knickerbocker Ed Workman Joe Morgan Debbie Tankersley Karla Tipton Doris Sikora Henry Lacy John Settimi Joyce Stubbs Linda Floyd	

Article I: Issues

University programs are not all in the same college, department, degree Some Universities do not recognize CTE Dealing with the CPE formula School District Administrators (Counselors, Principals, Superintendents) do not understand CTE Spend too much time to figure out who we are instead of promotion of what and who we are Marketing Statewide accepted definition of CTE KCTCS missing from the table for service to in-service teachers Local School districts don't think CTE teachers have strong enough academic knowledge Technical Teachers Compass scores may be too low Alignment Skills how to work with schedules Universities need to carefully address the standards for Tech Ed Certifications do not have proper names Tech Ed Downsizing of university faculty Funding from Federal Government cut State Funding for CTE both secondary and postsecondary Align OCTE and new KDE branch

Article II: Action Plan

Statement of Objectives/Goals:

1. Develop and implement an educational, marketing and promotional plan – including college and career readiness components
2. Build relationships with business, industry, professionals and stakeholders
3. Acquire resources to accomplish action plans (funding, services and etc.)
4. Write a definition for KY CTE (Investigate possible sources)
5. Align CTTE programs including KCTCS and universities to address technical, academic, and employability skills
6. Establish certification standards for all School District Administrators (Counselors, Principals, Superintendents) that includes content that leads to an appreciation and working knowledge of CTE

IMPLEMENTATION		
What needs to be done?	By whom and when?	What resources?
Develop, expand and implement marketing plan	State and national CTE organizations and agencies (time frame: June 1, 2011)	Public and private
Make sure KY has a consistent CTE definition	CTTE-UCC (time frame: April 2, 2011)	KY State Plan, CTE web site
Develop legislation that restructures CTE to align with SB 1 and CCR, including dual credit/articulation of CTE credits	Business and Industry, State agencies and professional organizations (time frame: July 1, 2011)	Other state plans,
Establish and recommend certification standards for all School Administrators, to include CTE content	CTTE-UCC, EPSB (time frame: September 1, 2011)	Marketing plan,

University programs are not all in the same college, department, degree
Some Universities do not recognize CTE
Dealing with the CPE formula
School District Administrators (Counselors, Principals, Superintendents) do not understand CTE
Spend to much time to figure out who we are instead of promotion of what and who we are
Marketing
Statewide accepted definition of CTE
KCTCS missing from the table for service to in-service teachers
Local School districts don't think CTE teachers have strong enough academic knowledge
Technical Teachers Compass scores may be too low
Alignment
Skills how to work with schedules
Universities need to carefully address the standards for Tech Ed
Certifications do not have proper names Tech Ed
Downsizing of university faculty
Funding from Federal Government cut
State Funding for CTE both secondary and postsecondary
Align OCTE and new KDE branch

Article III.   Action Plan

Statement of Objectives/Goals:

7. Develop and implement an educational, marketing and promotional plan – including college and career readiness components 8. Build relationships with business, industry, professionals and stakeholders 9. Acquire resources to accomplish action plans (funding, services and etc.) 10. Write a definition for KY CTE (Investigate possible sources) 11. Align CTTE programs including KCTCS and universities to address technical, academic, and employability skills 12. Establish certification standards for all School District Administrators (Counselors, Principals, Superintendents) that includes content that leads to an appreciation and working knowledge of CTE

IMPLEMENTATION		
What needs to be done?	By whom and when?	What resources?
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Develop legislation that restructures CTE to align with SB 1 and CCR, including dual credit/articulation of CTE credits	Business and Industry, State agencies and professional organizations (time frame: July 1, 2011)	Other state plans,
Establish and recommend certification standards for all School Administrators, to include CTE content	CTTE-UCC, EPSB (time frame: September 1, 2011)	Marketing plan,

Integration of CTE and Academics

Person Completing the Form: Rita Davis	Organization
Breakout Group: Integration of CTE and Academics	Dates: February 3, 2011
Group Participants: Deborah Anderson, Steve Bennett , Ed Davis, Steve Fardo, Carole Frakes, Frank Kincaid, John Marks, Tim Ross, Debbie Seider	

Article I: Issues

Career guidance / counselors
Culture of the school - vision
Interdisciplinary instruction
College/career readiness (ACT scores)
School calendars & daily schedules
Building relationships
Middle school – beginning career pathways
Mapping – CTE courses for academic credit
Innovation & critical thinking
Remediation – college ready
Common core standards
Not all stakeholders are at the table (KCTCS and academic partners)
Funding for ATCs should be considered as KCTCS

Article II: Action Plan

Statement of Objectives/Goals:

Focus of Colleges of Education / certification of teachers on integration methodologies.
Capture student integration projects in ILPs.
Implement integration plans to include academic, technical and employability skills in secondary and postsecondary curriculum.
Require ALL teachers to be trained on the use of integration as a teaching strategy and develop/use an integration plan for all courses taught.
Provide professional development and training in how technical education complements common core standards for students and academic teachers.
Evaluate the use of integration through program review and program assessment.
Empower all educational leaders (SBDM authority – too much?)
Involve all stakeholders

IMPLEMENTATION		
What needs to be done?	By whom and when?	What resources?
Discussions need to begin at universities	CTE Teacher Educators With math and science teacher educators about applied learning With methods teachers about integration concepts and ILPs and included as part of student teaching	$$$??? Time July 1, 1990 • All items should be addressed and reported by 2012 conference
School integration plans	By academic and technical teachers in their courses. By counselors in ILPs ILP professional development for C& T teachers	

PD – Common Core Standards	Principals	
Program Reviews include integration	KDE work with CTE	
SBDM Authority/roles & responsibilities	Review of their responsibilities	
Expected participation of all stakeholders	KCTCS, Universities, Technology Center/High School Principals, KDE, OCTE, Teacher Educators, Academic Partners	

Addressing Student Organizations in CTE/CTTE Programs

Person Completing the Form Kathy Croxall	Organization
Breakout Group CTSOs	Dates February 3-4, 2011
Group Participants Doug Smith, Jean Smith, Elizabeth Bullock, Steve Phillippi, Matt Chaliff, Michael McDermott, Karen Nash	

Article I: Issues

A. Articulating the vital role of CTSOs and the competitive process as critical to the learning process to other education professionals
B. Relationship between size of CTSO and size of program, i.e. larger CTSO groups encourage content classes to be included in the schedule
B. Getting buy-in for pre-service teachers, incorporating it as co-curricular
C. Helping students see synergy between classes for students
B. How are the technical teachers prepared to encourage, support CTSOs
B. Pre-service students often come from CTSOs
Encourage top CTSO students to follow on in the programs
B. Competition to compete in everything rather than looking at strengths
E. Competitions geared to diverse student needs, characteristics
B. Teachers have difficulty identifying resources to assist students in competitions
Students are spread too thin
D. Local school policies get in the way: transportation, snow days, test days, schedules, etc.
B. Limited research done verifying value of CTSOs, most information is antidotal and not really research; more research is needed
A. Training of pre-service teachers to be advisors, an expected part of the job, why they are doing it—the big picture
B. Lack of professional involvement by the teachers; modeling for their students at both the college/ high school level
D. Cost of membership limits those students that can fully be involved in CTSOs

Article II: Action Plan

Statement of Objectives/Goals:

A. Designate money to fund research to verify value of CTSOs; disseminate results of the research
B. Stronger pre-service/ teacher preparation emphasis on the role of CTSOs, and advisor preparation, including available resources
C. Show connectedness between academic standards and CTSO activities/competitions, emphasizing outcomes and evidence
D. Encourage state-wide policies dealing with scheduling, excused absences, transportation issues, etc. that are equitable across programs and extracurricular/co-curricular activities
E. Develop diverse CTSO competitions open/do-able for students with diverse needs , i.e. IEPs, (may not go beyond state level); encourage that at the national level

IMPLEMENTATION		
What needs to be done?	By whom and when?	What resources?
Investigate funding sources for research	Office of CTE (emphasis on action research)	National Research Center for CTE; Perkins; ACTE; ACTER
Identify individuals to conduct research	Office of CTE	National Research Center for CTE; Perkins; ACTE; ACTER
Identify researchable CTSO topics	Collaboration between teachers, counselors, researchers, Office of CTE	
Mentoring pre-service, current teachers	Current teachers, state department personnel	
Training, including materials, for teacher educators	State department personnel	National CTSO organizations
Emphasis during new teacher induction; training	State department personnel	
Creation of an on-line community for CTSO advisors	State department personnel	
Complete the crosswalks between CTSO competitions and core content	National associations for CTSOs	
Include CTSO participation in curriculum materials	KDE/OCTE personnel	
Encourage inclusion of CTSOs in ILPs	Classroom teachers	
Recommend equity in co-curricular /extra-curricular support at the local level	KDE/OCTE personnel, student CTSO officers, school superintendents	
Develop, where not already created, competitions to allow for diverse student	Local CTSO advisors, state CTSO advisors, national CTSO advisors	Local, national and state CTSOs

participation		

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