



Editor's Note: OCCRL is working closely with the ICCB, ISBE, and the Illinois Center for Specialized Professional Support (ICSPS) on a set of guiding principles and design elements for Programs of Study, an essential requirement of the Perkins IV legislation. The principles and elements are being reviewed by workgroups of practitioners for their use as a framework to guide implementation and evaluation of Programs of Study. This issue of Update contains an interview with Nebraska's state director of CTE, using Illinois' guiding principles as the basis for the interview topics. Nebraska is considered by many as a leading state in implementation of Programs of Study. The second article covers an in-depth exploration of issues related to principle two: access, equity and opportunity. The third article presents OCCRL's role in the planning and implementation of Programs of Study in Illinois. In the fourth article, three nationally recognized CTE leaders provide answers to a commonly raised question: "What's unique about Programs of Study . . .?" The final article presents early findings from an evaluation conducted by OCCRL of the College and Career Readiness Act. Issues related to college and career readiness will comprise the Spring edition of Update newsletter.

Implementing Programs of Study: An Interview with Rich Katt

by Catherine Kirby

UPDATE: Illinois has developed six guiding principles and associated design elements to serve as a framework for implementing programs of study that involve career and technical education (CTE). The first guiding principle is **leadership, organization and support**. What do you believe are the most essential qualities leaders must have and what are the actions they must take in order to effectively lead the implementation of Perkins IV and programs of study?

MR. KATT: I've reviewed your principles and design elements and find they make sense. They're very similar to where Nebraska's at and some of the components that we've identified that are essential to the success of our whole transformation of CTE and building the state system. One of the things that was so important for us early on was to have a compelling vision, so we created our career education model <http://www.nde.state.ne.us/NCE/>. That little wheel with all the colors in it is huge for us! It has become our identity . . . the compelling vision that says we are about workforce development and careers for all Nebraska students. We then took it to others who had to convey the vision to other groups so they were armed with something identifiable, clear and consistent. Providing that to our leaders was huge; they had a common language and we had a common framework that we were trying to convey. From that point on, we looked for people who were good communicators, who had some credibility in different ways.

Some of our best partners were actually main street business people in small towns that are struggling with a workforce supply – just as much as some of the major corporations in Omaha. We targeted both directions to look for good communicators, people who had some knowledge and integrity, who could stand up and talk about the realities of Nebraska's economic situation. So I don't know if there was any essential quality other than a real understanding of the vision and that [workforce development] is not something that any one entity can solve by itself. It requires a partnership between business and industry, economic workforce development, and education. We framed it from that perspective.

UPDATE: Did you have a strategy for groups that you talked to?

MR. KATT: Early on we started working with the Omaha Chamber of Commerce and built a strong alliance; [Omaha is] the largest city in Nebraska. That chamber is very, very good at what they do. We asked them "How do we do this?" and "How do we sell this message?"

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They helped refine the message to make sure it was appealing to business and industry and to make it about their future and survival. We also have regional economic development councils in some parts of the state and they've been big partners as well.

UPDATE: How did you reach out to leaders at the secondary level – the principals and superintendents whose attention is largely focused on NCLB?

MR. KATT: Our state staff identified key players who we knew were credible, had strong leadership abilities because they obviously have good schools and who were interested in developing the whole student – broader goals than the NCLB and AYP etc. In other words, we hand-picked our first group of secondary administrators and engaged them up front. When we held the statewide, 2-day brainstorming meeting, called “FutureForce Nebraska,” in December of 2006, we made sure we invited those “good thinker” types of administrators to be a part of that conversation. They also helped us develop and refine the message. (See <http://www.nde.state.ne.us/nce/FFSynthesis.pdf>) for a synthesis of the event.) Amazingly, they went back to their schools and they pushed this thing further. A good example is Grand Island, NE, a high school of about 2,100 students in an increasingly diverse community. The administrators knew they had a lot of challenges, but they saw CTE as one of the ways they were going to keep students, especially the growing Hispanic population, engaged in school. It really was an effort to get students to think [of career goals] bigger than just the meat packing industry which is dominant in that particular city. The administrators reorganized their entire school around our six major career fields. They caught the vision and they carried it out. Looking at that school's catalogue, you can see it is broken down to where all the courses are listed by areas of interest in the career fields (See <http://www.gips.org/senior/counseling1/course-offerings>). That is an example of hand picking our first line of people that we knew we wanted success with and then growing them by giving them some ownership in the development of this whole process.

Also, I looked for groups and organizations that we could partner with, such as the Nebraska Council of School Administrators. Another is the Council of Greater Nebraska Schools, a group of school administrators who are very progressive. Size-wise, they are the next tier below our largest districts in Omaha

and Lincoln. This group of administrators was looking for some school reform or redesign concepts. I invited myself into their fold and got them talking about programs of study. Actually, our DOE staff did a couple of seminars for them.

Another major secondary group we've worked with from day one is school counselors because we believe they are gate keepers in many ways. We knew we were either going to threaten them or they were going to be our partners. We didn't want this to look like one more thing that would be added to their already overfilled plates. We had 300 counselors attend a 2-day academy supported with some Perkins' dollars. The bulk of the program was around helping [counselors] understand what

a program of study is, how to help students with programs of study in a career counseling context, and about how to help them transition between secondary and postsecondary. So, again we looked for the leaders in that organization and the state counseling board of their professional organization, inviting them to become a part of some of our conversations. Counselors now feel like they've got a new home and it's with us in CTE!

UPDATE: How did you reach out to your six community colleges about programs of study?

MR. KATT: Two ways. One was to the Chief Executive Officers and the Presidents of each of those community colleges. Dean Folkers, the Assistant State Director is my partner here; we try to go at least once or twice a year to one of their meetings just to say “Here's where we're going and here's what things look like.” And “We really appreciate our partnership.” We've done more work with the Chief Instructional Officers, trying to help them understand what we're trying to do to build that alignment piece. It's all about communication, collaboration, and building a relationship with them. It's helped. A lot of it is because they

want to make this as seamless as possible for young people too. It's to their benefit if a student sees the connectivity to their community college.

One thing that drove the inclusive approach we took to leading this initiative is one of my sources of frustration of working in state government for a number of years: the isolation within government where we each build walls around our own little turf. It's ridiculous in a state our size that we do not have more collaboration across state government or even knowledge of what other agencies are doing. So that was the impetus around FutureForce Nebraska. [Leaders responsible for allocating

Katt's Advice on Programs of Study:

1. Create a compelling vision
2. Adopt a common language and framework
3. Engage partners who help communicate the plan
4. Hand-pick schools and support their success
5. Recognize counselors who are key gatekeepers
6. Tear down walls; share resources
7. Use data to determine student access and educational needs and outcomes
8. Reach consensus on cluster-level knowledge and skills
9. Refocus CTE curriculum on college and career preparation, not “hobby” courses
10. Convene CTE teacher educators and offer a variety of professional development for partners
11. Conduct data summits and encourage use of data to make local decisions

funds and organizing people] have got to start maximizing resources because none of us has enough money to do what we need to do – or enough people. It’s been very good, but not without its little battles. But we’re surviving and things are going well. If we can’t model the way, it’s a bit hypocritical for us to sit here at the state office telling the locals to start working together, when we go about our business as if we didn’t have any other partners in the world.

UPDATE: The next principle is about **access, equity and opportunity**. What are the issues you deal with in Nebraska that are related to these populations in providing equal access to what Perkins has to offer, as well as any effective practices have you seen?

MR. KATT: We have two initiatives related to access and opportunity we’re working on right now – one is just finishing up. Our agency’s special education department just completed a massive study of the quality of services provided and so forth. We became involved with that and added a few questions to their study related to career and technical education. The initial results came back very positive – that we have open accessibility to our programs and that special populations experience success in career and technical education in the state. We needed to validate that’s what really going on out there.

Within our agency, we have what we call our transitions team. It’s a couple of people from the special education department, a couple of us from CTE, and a couple of people from vocational rehabilitation. We meet every other month or so to talk about what we’re each doing and how we can better help young people by working together. The communication has been very good. I would encourage Illinois to begin those conversations if you haven’t already. When the folks who monitor and work with those programs know about what we’re trying to do, then they’re better able to be advocates when they go out and work with the schools. That’s paid some dividends for us.

Frankly, we struggle a little with the outcomes for nontraditional students. We’re trying to do everything we can do but, bottom line, our data has flat lined. We don’t have a lot of money to spend and want to get the biggest bang for the buck that we can. So, we took a step back this year and instead of spending money on projects, we funded a research study and should have the final results by the end of December. Although it is a preliminary finding, we’re learning that our current efforts occur too late in [students’ career exploration] process. Even in talking to the young people, we’ve learned that we had better be at the elementary and middle school level if we’re going to change stereotypes and attitudes about “what I can and cannot be.” We’re trying to approach what we do from a research perspective so we have some kind of an evaluation of what we’re doing to better provide schools that are struggling with very specific strategies to choose from that are proven to work. Probably by next spring we should have a pretty decent little handbook or website of strategies for special populations.

UPDATE: Do you have any specific outreach programs for adult students returning to postsecondary, because they fall under that ‘special populations’ category too?

MR. KATT: Yes, we have some. All of our postsecondary colleges work with some aspects of adult students’ transition to occupational programs. The adult student was a part of the nontraditional study and their issues were discussed at both secondary and postsecondary in-services. Our partnership with vocational rehabilitation is involved with the adult sector as well. That sharing of information has been important. Once we identify some strategies that work at the postsecondary for those adults, we’ll have it in a form that we can share with other community colleges.

UPDATE: Principle three is about **alignment and transition**. While much of this work was started under previous versions of Perkins, what are the major challenges we face under Perkins IV and what are some promising strategies in meeting these challenges?

MR. KATT: We’ve done a lot of work in this area. We created what we call the Partnerships for Innovation (www.futurefornebraska.org/Partnerships/). Because Nebraska is not a huge state, our Perkins resources are limited. We don’t have that much money to spend on state-wide leadership and administration activities. So we looked at how we were going to create state-wide articulation agreements and how we were going to focus on curriculum alignment between secondary and postsecondary. We knew we needed more resources so we approached all our Perkins consortiums and our stand alone schools and community colleges about the idea of forming a state-wide consortium. They agreed, and everybody puts 10% of their money back into this consortium. That consortium then hired an executive director. She’s a former tech prep coordinator for us, but she is now doing the bulk of the work in helping us with curriculum alignment workshops. We’re really focusing on dual credit opportunities for students – but also emphasizing curriculum alignment between secondary and postsecondary. The good thing is that all the community colleges have adopted that career education model, organizing things accordingly or they have a transition piece that says “Here are all of our programs – here’s how they fit in this wheel and what it looks like.” It helps us as we start to think about the alignment. We started in finance; we’re working in transportation distribution; and we’re working in information technology, education and training, and health sciences. So, we’re taking it cluster by cluster.

UPDATE: How did you determine those clusters?

MR. KATT: Primarily based on employment opportunities, and it’s been very successful. Agriculture is one we’ll be gearing up on. We didn’t take it up initially because we have a vacancy here on our staff and we put that on the back burner. It’s now coming up because we have some new initiatives in the Agriculture, Food, and Natural Resources Cluster. We

have all the community colleges in play. When we pull these sessions together, we invite the universities, both public and private, 2- and 4-year institutions who offer curriculum in that given area to come and if they want to align, great! We know that Perkins money can only be spent at the community college level. Interestingly enough, we have a variety of people who are more than willing to help us take a look at the ability to create dual credit opportunities and to align curriculum. In fact, some of the private institutions are far more aggressive about it. It makes sense because it's good marketing for them. We have the University of Nebraska and Creighton aboard as well as College of Saint Mary and Hastings College – you name it, we have them. One of the first pathways we developed was in the Finance cluster; we looked at Accounting. We now have an Intro to College Accounting course (a dual credit course) that's accepted at a variety of those institutions. We were a little surprised that we had that kind of collaboration, but again, it's what's good for students.

There are also issues that we don't have solved. One of those is how we transcript credit. That's huge. Under the old tech prep system it was mostly up to the student to remember that they had articulated credit someplace. Well, as we all know, that didn't work very well. We've got to create a system of transcribed credit that somehow tracks with the student as they [transition to college]. We've also identified some issues around teacher certification qualifications. We have some hurdles there that we are just beginning to identify that are also policy issues. One huge hurdle is who pays for dual credit. We have no state system of support for dual credit. Then it comes down to becoming a socio-economic issue where those that can afford to pay get the dual credit and those that can't afford it take the same class but don't get the credit. We're really working on trying to fix that one.

UPDATE: You said at the beginning of your response to this question, something about a statewide curriculum and alignment. Have you accomplished that?

MR. KATT: So far we have Introduction to Business and College Accounting. We're working on Medical Terminology right now. We've got an Introduction to Education that's in the process of being developed and, of course, is being based on the knowledge and skills from the States' Career Cluster Initiative. Everyone agrees that the students who take this course are exposed to the same set of knowledge and skills. So far they're basing it on trust and [we know] that isn't going to last. We're working through "What does this look like?" One of the suggestions has been: If the high school student can pass the same test at the end of the course that a postsecondary student would pass at the college level, there should be no question about awarding dual credit for that. For some of those courses we've agreed upon what the knowledge and skills should be or what the student should know and be able to do; now it's the validation part of it. We're looking at how we can tie into our technical skill attainment requirements under Perkins. If we

can use the fact that the test is developed by the postsecondary, then can it count as a third party test for a secondary student? We don't know the answer to that.

Another example of curriculum alignment was when we began thinking how to prepare our young people for careers in logistics. Most people don't even know what that is. So, we got all the community colleges together, private colleges and so forth. We had such a hodge-podge of courses at the postsecondary level; our first step was to get alignment there. We had the same thing with medical terminology – two community colleges teach that from a health informatics perspective and the other four teach it as a pre-requisite to moving into radiation technology or surgical technology. So, my point is that all the work is not about secondary course alignment; it's also about some alignment at the postsecondary level. A student shouldn't have to worry whether a midterm course taken at one college will be accepted at another. We truly want alignment to be statewide. So far the colleges are working with us, but it's slow going at the postsecondary level.

UPDATE: Principle 4 is about **enhanced curriculum and instruction**. What does a program of study under Perkins IV look like at the curriculum level?

MR. KATT: Our staff started this process knowing that programs of study were going to become a reality and developed the process over the last year and a half. We rethought our curriculum, made some strong recommendations about courses that should not be offered any more at the high school level and others that should be offered in their place. Nebraska is a local-control state. We do not have state mandated or approved curriculum, but the Nebraska Department of Education puts out a curriculum guide that schools respond to, and it's the most commonly found curriculum in the state. The courses have code numbers on them (and schools can always add their own if they have courses that are unique). We've reworked that so it's now based on the Nebraska clusters model. That went out in November to all of our schools for [their use in planning] the coming year. Our staff now is doing a lot of in-service with our teachers to support the curriculum guide helping them determine the types of courses that should be in each cluster.

[This effort is also supported by] the curriculum alignment workshops. For example, as we look at moving away from Auto Mechanics I and turning that into an Introduction to Transportation Distribution and Logistics, faculty need support so they can make the conversion and help students get a broader picture of the cluster – of what's out there in the larger cluster beyond what they would learn in an auto class. After students have the introductory course, they move into their course sequence within a program of study. Those programs of study are the ones we're working on in the curriculum alignment workshops to tie into the postsecondary arena and to make sure that we have the curriculum aligned. It is really reshaping a lot of curriculum. Ratcheting it up a bit in terms of rigor was one of

our intentions. Another was to eliminate a lot of our courses. We had some “hobby” type courses out there – maybe really popular with the students but didn’t offer a solid career preparatory component to them in one of the career cluster areas, and we’ve recommended those courses go away.

UPDATE: You can recommend that they go away – but how does that actually happen?

MR. KATT: Amazingly, it has. Part of it can be attributed to the work we’ve done with school administrators to help them understand the vision that [Perkins IV and programs of study] are about student preparation for their career and postsecondary education. While a fun hobby photography course may be really popular in the school, refocusing it around more of a commercial photography kind of a course will apply to the art/audio-visual kind of a pathway – [faculty] understand that. It’s gone better than I’d ever thought. It’s not 100%. I’d love to tell you that every school has jumped on the band wagon, but they haven’t. But our goal, by the time we get this system built – I’m thinking by the time Perkins IV is over – we might be close.

UPDATE: Principle 5 is about **professional preparation and development**. This includes teacher education. What efforts have you made in Nebraska to not only recruit new teachers to CTE areas, which is a problem nationwide, but also ensure that they are learning the pedagogical methods that engage students and impact learning outcomes?

MR. KATT: For the last 5 years, we’ve gotten all our teacher educators in CTE together in Lincoln once a year for what we call the “Teacher Education Forum”. We invite all colleges that prepare CTE teachers and pay for their professors to come in for a day. We have almost 100% attendance. All of the colleges are always represented and we have almost 100% attendance from the faculty. It gives us a chance to share with them what it is we’re trying to accomplish, how we need their help, and what we expect out of the pre-service candidates that come out of their programs in terms of understanding our system. We spend the morning talking about the big picture of CTE in Nebraska. Then in the afternoon, the professors break off by discipline to talk specifically about what their needs are and so forth. It pays benefits.

UPDATE: Do you support this activity with Perkins funds?

MR. KATT: It does come out of Perkins. It’s been phenomenal; it gives us a chance to have a face-to-face audience with all of them hearing the same message in the morning and a chance for the disciplines to talk in the afternoon. Plus, it gives our consultants here at the DOE a chance to say “Here’s the new curriculum. How do we work together to make sure all teacher candidates have the knowledge and skills in place to deliver the curriculum?”

UPDATE: Is there any similar effort made for the English and the math or science faculty?

MR. KATT: We have had a variety of professional development opportunities where we bring in cross curricular teams of CTE and academic teachers. We did one on technical writing, one on math, and one on reading. We’re currently doing a lot of work around problem-based, case-based learning, on how to develop those scenarios. As we do those across the state, we’re requiring that the team that comes is both academic and CTE teachers working together from both secondary and post-secondary institutions. We’ve had a lot of success with that requirement. I’ll never forget the first year we did one around reading and one of our large schools called me to say “Why in the world would you want to send CTE teachers to a reading workshop?” I thought to myself, “If I need to explain this, we have more problems [than I thought].” So, we just talked about the whole concept of technical reading. Well, they had never thought about that and how essential it is that everybody be teaching reading skills and reinforcing reading within the classroom. The person said, “Oh yes, that’s kind of a good idea.”

UPDATE: What kinds of different offerings in the professional development area does the state put on for teachers in training?

MR. KATT: A couple of things work for us. We try to make sure that we have access to undergraduates. One is because of this good working relationship with teacher education, our staff has an opportunity to go into typically the methods class at each of those institutions at least once a semester and make a presentation and talk about where things are going. I usually have the chance to visit with a couple of the classes here at the University since I’m here in Lincoln. We also invite teacher candidates, especially as they are getting ready to student teach, to be part of that workshop we hold in June that I already mentioned. We typically have 30-35 attend; we don’t charge them anything, they just have to pay their own expenses to get there. It’s a good way to get them hooked into professional development and coming to the conference and understanding the value of it.

All of this professional development is partly possible because I have a staff of 16 professionals – bigger than a lot of states. Omaha or Lincoln can provide that kind of professional development when they get all their teachers together from all 8 high schools – but for our many small rural schools, that’s very difficult. It’s always been our philosophy here that the best way to spend Perkins money is to do some state-wide or regional kinds of activities where we can bring those teachers together, so they can get the same kind of experience that a group of Chicago teachers or Omaha teachers might get just because they’ve got their own resources.

UPDATE: The final principle is **program improvement and accountability**. What have you done in that area, and does your state have a longitudinal data system?

MR. KATT: We do have a new state-wide longitudinal data system. We're just into it and now are experiencing the reality of "We thought this was going to be easy, but it's taking more work." Once we get the system up and running it will be easier. Right now the grant that we're working with is only K-12. We have applied for grant number 2 from the USDE which will help us bridge it into the postsecondary world. Road blocks that we've run into include FERPA; that continues to be a challenge. I was in Washington recently at a meeting where they talked about some new FERPA guidelines and that the Feds recognize there are some issues in tracking student outcomes from secondary to postsecondary. The US Department of Education had indicated that they had an in-service training around the new FERPA guidelines and that they were going to make that available to secondary and postsecondary people on a webinar. I don't know when that's going to come.

But for what we have done: for the last couple of years we've had data summits where we'd invite both secondary and postsecondary, a representative from each of the Perkins consortia, each of our stand-alone schools and from each postsecondary – to come together. We spent the morning talking about the big picture. In the afternoon we split secondary and postsecondary so we got down into more what this is all about. We're going to

continue this summit for the next couple of years, now that we have much higher quality data because of the longitudinal data system. We're going to put more emphasis on how [locals use data] and what they need to be using it for in terms of driving programming decisions and so forth. One of the things that we've talked about lightly is the sanctions referred to in Perkins IV, which have never been in there in the same way in the past. We want to avoid [sanctions] at all costs and the only way to avoid them is by working together to make sure that schools meet the established benchmarks and nobody falls below that 90% range for 3 years. [We need to clearly convey] that there are consequences now [at the Federal level] where there didn't used to be. ♦

In addition to serving as the State Director for Nebraska Career Education since 2001, Rich Katt's current duties also include coordination of education activities with Nebraska Workforce Development and Economic Development. He is currently serving as co-chair of the FutureForce Nebraska project to prepare a trained workforce for the targeted industries as identified by the state's Department of Economic Development. He has been involved in education for over 30 years as a secondary instructor, Nebraska FFA Executive Director, and State Director for Agriculture Education. He is a past national president of the National Association of State Directors of Career and Technical Education consortium and of the National Association of Supervisors of Agricultural Education, and was awarded the Outstanding Supervisor/Manager Award from the Nebraska Department of Education in 2001. He can be reached at Rich.Katt@nebraska.gov.

Equity in Access and Opportunity for a Bright Future

by Kathleen Marie Oertle

The Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) supports the development, improvement, and expanded accessibility to information regarding career awareness and planning for students (and parents, as appropriate) and educational preparation for career goals and expectations. Further, Perkins IV endorses equal access for students to a full range of technical preparation programs and appropriate technology. Access to opportunities for learning, earning, and bonding are linked to raising the level of one's quality of life; this is universally true. Alongside the power of access is the strength in having the freedom to choose what one learns, where one works and lives, and with whom one socializes. The possibilities for successful outcomes are most likely when individuals determine their life experiences for themselves; this is also universally true.

Access and self-determination are frequently now a part of some people's lives. However, many people are routinely excluded from, denied access to, and prevented from self-determined participation in opportunities that are linked to quality of life (Blackorby & Wagner, 1996; Cameto, & Levine, 2005; Wittenburg & Maag, 2002). In fact, while individuals, parents, leaders, educators, other professionals, and researchers continue to advocate for and work toward increased access and opportunity, it is still typical for people to experience barriers that preclude inclusion (DiLeo, 2007). This is especially true for those who have been historically under-represented, underserved, and labeled (e.g., students who are: minority; first-generation postsecondary education, low-income; immigrants; special populations).

The power of education is evident in the data. Youth who experience any one or more of the following predictors are more likely to leave school: 1) attend schools in urban school districts, 2) live at or below poverty, 3) are part of an ethnic minority group, 4) have a single parent, or 5) have a disability status. As a result of leaving, they are less likely to gain access to viable employment, further education, safe housing, supportive social relationships, and meaningful community inclusion (Swanson, 2008; Thurlow, Sinclair, & Johnson, 2002). Rather many high school noncompleters are engaged in negative community participation by being stopped by police, arrested, on parole, smoking cigarettes, using drugs, having unprotected sex, and becoming single parents (Wagner, 2008). Further, people with less than a high school education are nearly 4 times more likely to be unemployed than someone with some college education but no degree (Postsecondary Education Opportunity, 2008).

Educational attainment levels have been linked to poverty rates. Nearly 32% of people with no high school diploma live

in poverty compared to 10% of people who have some college but less than a 4-year degree (Postsecondary Education Opportunity, 2008). It is obvious that unemployment and poverty are linked to a lack of education. The opportunity to earn a living and be self-supporting is a universally held goal. Access to meaningful education provides a connection to employment opportunities. Employment is more than economic value, but important social and psychological value (National Council on Disability, 2007).

There are many barriers to access and opportunity. Some of these barriers include dropping out, limited planning and preparation, inadequate self-determination knowledge and skills, limited career development, lack of supportive relationships, inequity, fragile cross-system collaboration (e.g., general, career and technical, and special education, secondary and postsecondary education systems, education and business and industry), and insufficient professional development. Nevertheless, if we wish to halt the nation's decline in educational attainment, we must continue to ask which policies, programs, and curricula place students at a greater disadvantage, and which are more successful in helping them succeed (Green, 2006). Various measures are being taken to address barriers to access and opportunity resulting in some promising practices and are explained more fully for consideration as areas to address in the implementation of Perkins IV.

Promising Practices

Dropout Prevention and Recovery

One size does not fit all. This is where program flexibility is critical. Schools cannot do the prevention and recovery work alone (Hoyle & Collier, 2006). There are many potential collaborators with similar interests such as those involved with the Perkins Act, Rehabilitation Act, IDEA, Higher Education Act, and Workforce Investment Act. Together investing in the future is possible through the education of our youth by doing "Whatever It Takes" (Martin & Halperin, 2006). Continued attention including funding and research is necessary to further strengthen the efforts to keep youth engaged and re-engaged in their knowledge, skill, and esteem development.

Some of the known predictors for why students leave school are categorized as *alterable* and some are *status*. Alterable situations are those that educators, community members, employers, parents, and students can influence (e.g., attendance, support services). Status situations are considered extremely

difficult or unlikely to change (e.g., disability label, socioeconomic status). The differences between alterable and status predictors have important influences over the outcomes of efforts to prevent students from ending their secondary education prematurely (Thurlow et al., 2002). Thus it is recommended these differences be considered during program development.

Dropout prevention strategies. Keeping youth in high school until they earn their diplomas is ideal and critical for future access and opportunities. Using strategies to prevent as many students as possible from leaving school prematurely will continue to be important. The 15 National Dropout Prevention Center (NDPC) Strategies are evidence-based and provide an excellent framework for prevention programs. Further, the strategies have been used to evaluate program quality (Hoyle & Collier, 2006).

The 15 National Dropout Prevention Center Strategies

1. Systemic renewal
2. Professional development
3. Early childhood education
4. Alternative schooling
5. Instructional technologies
6. Service learning
7. Conflict resolution
8. After-school experiences
9. Community collaboration
10. Family involvement
11. Reading and writing programs
12. Individualized instruction using learning style/multiple intelligence/universal design
13. Mentoring and tutoring
14. Safe learning environments
15. Career and technical education

While dropout prevention programs based on these 15 strategies are built on a solid foundation, incorporating these strategies throughout school programming is most valuable so that all students benefit. The NDPC 15 strategies are backed by evidence and proven effectiveness for increasing educational access and opportunities that lead to successful outcomes (e.g., employment, continued education, and social relationships). These strategies are specific enough to provide a structure for program development but general enough for local flexibility.

Recovery strategies. While preventing students from leaving school prematurely is important, most likely there always will be some youth who leave. Today, recovery programs are critical because of the numbers of youth who are already out-of-school and those who are anticipated to leave in the future. Both groups need to re-engage in education and need a reentry process to do so.

The evidence that is available about successful recovery programs consistently supports the combination of academic and career training (i.e., Career and Technical Education). Career and Technical Education provides pathways to employment by design, creating relevance for students by giving them a reason to return for further education. In addition, programs for out-of-school youth that provide various means for earning their high school diploma rather than a GED are shown to be linked with higher monthly earnings and greater rates of postsecondary education enrollment (Martin & Halperin, 2006).

While “there is no one perfect model or blueprint for successful dropout recovery...the following [are] characteristics of effective dropout recovery efforts” that can assist in program development and quality evaluation as presented in Martin & Halperin’s (2006), American Youth Policy Forum, “Whatever It Takes: How Twelve Communities Are Reconnecting Out-of-School Youth”. The characteristics are summarized as eight evidence-based traits. These traits are seen as the *root causes for successful* re-engagement and *effective program practices* for attainment of a high school diploma or GED and are endorsed by the National Education Association ([NEA], 2008).

The Eight American Youth Policy Recovery Traits

1. Open-Entry/Open Exit
2. Flexible scheduling and Year-round learning
3. Teachers as coaches, facilitators, and crew leaders
4. Real-world, career-oriented curricula
5. Opportunities for employment
6. Clear codes of conduct with consistent enforcement
7. Extensive support services
8. A portfolio of options for a varied group

The overarching theme is that these traits are all learner-centered. The main components of the recovery mission are to reconnect with youth and young adults, engage learners in small learning communities (e.g., 15 students or less), provide supportive, respectful, and safe (emotionally and physically) learning environments, and teach with academic rigor. Academics need to be connected to career training that is relevant to the returning learner based on their interests and goals (Cook, 2005; Hansen & Toso, 2007; Lee & Breen, 2007; Quinn, Poirier, Fallor, Gable, & Tonelson, 2006; United State Government Accountability Office, 2008; Wyn, Stokes, & Tyler, 2004). The AYP recovery traits are the frame for effective practices (ACTE, 2007; Chmelynski, 2006; Lewis, 2006; Martin & Halperin, 2006). In addition, Martin and Halperin recommend building off of and networking with the national dropout recovery programs (e.g., National Guard Youth ChalleNGe program, Jobs for America’s

Graduates, YouthBuild, Youth Service and Conservation Corps, and Job Corps).

Universal Design for Learning Principles

Physical spaces have evolved through universal design in architecture by making buildings and other public spaces more welcoming to all people who may use them. The availability of ramps, elevators, curb cutouts, and signage with Braille and other languages in addition to English are all examples of universally designed architecture (Hitchcock, Meyer, Rose, & Jackson, 2002; Pisha & Coyne, 2001). Further development of universal design philosophy has expanded to spaces beyond physical.

Neuroscience research has allowed further understanding of mental and emotional spaces by providing knowledge about the functioning of the mind and brain as they relate to learning (Dolan & Hall, 2001; Pisha & Coyne, 2001). This information has added knowledge and skills regarding the needs of and successful strategies for working with diverse learners. The combination of universal design and brain-based learning concepts has expanded ideas about the conditions required for a climate of inclusion and access to education and learning for all students.

Universal design for learning is a conceptual framework that combines knowledge, principles, and strategies from architecture, neuroscience, and education in an effort to create learning spaces that are inclusive and accessible for all learners by focusing on the person's strengths and preferences rather than their limitations (Hehir, 2002). Universal design for learning builds from "assets incorporating positive language, is visionary and strategic, and most importantly, is student-centered. Moving from a deficit to an asset model affords students academic opportunities that might otherwise be unavailable to them" (Green, 2006, p. 26). Universal design's architectural origins, associated legislation, and the impact of technological advances specifically in the areas of brain-based learning, use of assistive technology, and multi-media provide a basis for understanding the working definition for universal design for learning. Three principles for universal design for learning: (a) multiple, flexible methods of presentation, (b) multiple, flexible methods of expression and apprenticeship, and (c) multiple, flexible options for engagement are suggested to guide the design elements for enhancing opportunities to improve educational outcomes (Blamires, 1999; Hitchcock & Stahl, 2003; Scott, McGuire, & Foley, 2003).

Traditional foundations in education focus on the needs of a core group of students. Approaching the development, implementation, and assessment of general curriculum instructional methods and materials by designing them with a homogeneous, core group in mind creates an environment full of barriers for many students. Data supporting population diversity and neuroscience evidence tell us that students are a heterogeneous group with many different ways of learning. Therefore, to meet the instructional needs of students, it does not make logical sense

to continue to approach dissemination of education in the traditional manner (Hitchcock et al., 2002).

Growing student diversity, educational reforms, and technological advances are pushing the utilization of more inclusive educational practices. By shifting thinking from the norm of modifications, add-ons, and retrofitted supports to designing inclusive curriculum right from the start, opportunities for students with diverse abilities are created that would not be available otherwise. Universal design for learning allows for multiple, flexible, delivery and material options to be built right in, promising inclusion and accessibility for all learners. However, barriers to universal design for learning exist (e.g., elitism, lack of availability of and professional development on how to use computer-based technologies, compatibility of operating systems and applications, unequal school resources, change is difficult, heavy reliance on computer-based technology) that threaten the widespread application of these principles (Oertle & Trach, 2008; Pisha & Coyne, 2001; Silver, Bourke, & Strehorn, 1998).

Silver et al. (1998) offered these recommendations to further the utilization of universally designed instruction: (a) develop and provide faculty training with specific strategies for universal instruction design, (b) development of workbooks with sample strategies, and syllabi, and (c) provide on-line education of universal instructional design training. In addition, further research is needed to gather and analyze data regarding universal design for learning curriculum materials, student learning activities, instructional strategies, and the impact for diverse students (Hitchcock & Stahl, 2003; Scott, McGuire, & Foley, 2003; Scott, McGuire, & Shaw, 2003).

The challenge for future universal design for learning is to use new technology to do new and innovative things. Most often at present we use new technologies to do old and status quo things (e.g., traditional textbooks converted to digital formats) (Rose, 2001). Experimental practice is necessary to openly explore the potential of universal design for learning. Through practice, creative implementation of strategies can occur broadening our view of ways to support and maintain inclusive spaces for information exchange and learning for all learners.

Self-Determination

The process of moving from secondary education to post-school setting may seem straightforward. Then again, we know how difficult this shift can be from our own experiences. Further, for many transitioning youth this process remains particularly unclear and in some cases nearly impossible (Oertle & Trach, 2007). Too often students are not taught how to self-manage their lives before they are faced with the realities of adulthood (Martin, Martin, & Terman, 1996). Lack of self-determination knowledge coupled with a lack of how to use these skills to gain access and opportunity leaves youth and young adults in a state of confusion and dependence. Access and opportunities in education are not only improved by the inclusion of the core competencies of self-determination, but it also enhances

the knowledge, skills, and abilities needed for transition to adult roles (Wehmeyer, 2005). Self-determination provides students with opportunities to think more critically, take risks, and problem-solve without penalty. “Curricula that do not facilitate critical thinking restrict learning and encourage deficit thinking”(Green, 2006, p. 25).

Individuals who are self-determined work toward assuming greater control over the situations in their life. Taking action is one’s life is a step to becoming more autonomous. Individuals who are self-determined make choices as needed, are aware that they have control over how they respond to situations and environments, and go beyond simply reacting to conditions. Self-determined people make decisions, solve problems, advocate for themselves and set, and achieve their own goals. People who are self-determined use these skills to access self-driven opportunities.

A common misperception of self-determination is that it means an individual must have complete and absolute control. This is not true. Being self-determined is understanding when to relinquish control to others who might be more qualified (e.g., a teacher or career counselor) and know how to access the necessary resources (e.g., financial aid). Self-determination can also mean allowing oneself to depend on others who can offer support (e.g., utilizing a mentor) (Wehmeyer, 2005).

Self-determined behaviors are promoted when students have opportunities for development in environments that support skill attainment and use. Practice of self-determination skills needs to be allowed and routinely encouraged. Educators need to provide the appropriate instruction and support for students to build their self-determination skills because these skills have been linked to better outcomes. For example, Wehmeyer & Schwartz (1997) examined the impact of self-determination on positive adult outcomes. Individuals whose self-determination skills rated higher were more likely to go on to postsecondary education, be employed, have found work on their own, have secured checking and savings accounts, and to be involved in their communities. Career development, which is a key component in the preparation for adulthood, can be enhanced by infusing self-determination instruction and application (Wehmeyer, Lattimore, Jorgensen, Palmer, Thompson, & Schumaker, 2003).

The self-determined career development model. This career development model is based on the principles of self-determination and self-directed learning. At the heart of this model is self-directed planning for developing individual career goals and plans. The self-directed planning enables students to apply a problem-solving, goal oriented strategy to develop their career opportunities. The model presented here is a modified, four phase Self-Determined Career Development Model based on Wehmeyer (2005)’s three phase model.

The Self-Determined Career Development Model was modified to strengthen the embedded critical thinking scaffolds. These

scaffolds empower students while building upon their confidence to take control of their own advanced learning through systematic and critical reflection. “The learner cannot, by definition, know what they have yet to learn, but they can reflect upon their experience, anticipate possibilities, act on the basis of these and reflect again upon each new experience” (Harris-Augstein & Thomas, 1991, p. 3). Utilizing critical thinking scaffolds to support and encourage the use of self-determination skills and reflection creates a process for both formative and summative evaluation by way of on-going, self-reflection and problem-solving.

Each phase of the Self-determination Career Development Model (see Table 1) is directed by a separate problem for students to solve. Students are supported through each of the instructional phases by answering four means-end questions that are steps inherent in a problem solving process. The questions are intentionally consistent across instructional situations so that the individual learns the means-end approach. In each phase, individuals must identify: 1) the problem, 2) potential solutions to the problem, 3) barriers to solving the problem, and 4) the potential outcomes of each solution. As students move through each of the phases, they are encouraged to review their own needs through the question and answer process. Facilitators are encouraged to help students think about the questions, clarify what each question means, and determine what needs to happen in order to reach their goals (Wehmeyer, 2005).

Students use the information they gather from the answers to questions in each phase to self-monitor and self-assess their progress toward the goal and, if needed, revise the action plan or goal accordingly. As a result, students who learn and engage in these skills have the opportunity to make choices, are better able to direct their lives, and more likely to become lifelong learners. Learning self-determination skills for career development provides students with the knowledge, skills, and ability to: 1) plan for their futures, 2) make meaningful decisions about their lives, 3) take risks, and 4) evaluate and make changes to their life circumstances (Wehmeyer, 2005).

The Diversity Scorecard Project

While access to postsecondary education for diverse populations has increased there continues to be significant inequities in educational outcomes. These outcome inequities are especially true for students from minority groups (e.g., African and Latino Americans), with low socioeconomic status, who have disabilities, or who are female. In an effort to address equity issues, the Diversity Scorecard project was developed by the Center for Urban Education in the Rossier School of Education at the University of Southern California (USC). The Diversity Scorecard project began in 2001. The intention of this project was to increase the successful educational outcomes of African and Latino Americans by working with 14 urban higher education institutions (two- and four-year, public and private) (Bensimon, 2004).

Table 1
The Self-Determined Career Development Model (modified)

| Phase | Problem to Solve | Questions to Answer to Solve Problem |
|-------|----------------------------------|--|
| One | What are my career or job goals? | What career and job do I want? What do I know about it now? What must change for me to get the job and career I want? What can I do to make this happen? |
| Two | What is my strategy? | What actions can I take to reach my career or employment goal? What could keep me from taking this action? What can I do to remove these barriers? When will I take action? |
| Three | What was the outcome? | What actions have I taken? What barriers have been removed? What has changed to enable me to get the job and career I want? Have I achieved what I wanted to achieve? |
| Four | What have I learned? | What did I do well? What do I need to do better? What has changed to enable me to get the job and career I want? What do I need to do next time? |

A “practitioner-as-researcher” research model was utilized to systematically involve key stakeholders (faculty, administrators, and staff) in the identification of access, retention, institutional receptivity, and excellence indicators to assess and improve effectiveness (Bensimon, Polkinghorne, Bauman, & Vallejo, 2004). The goal was to “facilitate research by local participants that would improve their understanding of diversity on their respective campuses and influence their actions to achieve equity in educational outcomes among their students” (Bensimon et al., 2004, p. 112). The main developmental components of the Diversity Scorecard process are increasing awareness via data gathering, interpretation through data analyses, and action based on knowledge generation (Bensimon, 2004).

Whereas the Diversity Scorecard project focuses on African and Latino Americans, the same process can be utilized with any group of interest. The Diversity Scorecard provides a means to involve campus leaders in the generation of knowledge about student outcomes disaggregated by the various groups of interest (e.g., ethnicity, gender, disability). Institutional teams are charged with gathering and analyzing existing data from a variety of perspectives (i.e., access, retention, institutional receptivity, and excellence).

Bensimon and Polkinghorne (n.d.) recommend using the Equity Index, which is a quantitative method to measure equity in educational outcomes for students. The Equity Index is a ratio. The numerator of the ratio is the percentage of the students from the group of interest among all students in a given area (e.g., major). The denominator of the ratio is the percentage of the

group of interest among the entire student body. For example, “if Latino students comprise 10% of the engineering majors but 25% of the student body, the Equity Index is 10/25 or 0.4. Equity is reached when the index ratio equals 1.0” (Bensimon & Polkinghorne, p. 11). From these data, measures of equity and inequity across all majors, programs, honors, faculty and staff representation, and other opportunities at the institution can be compared. These equity indicator measurements are then utilized to create their Diversity Scorecard. Once the data have been collected and analyzed, conversational learning is possible because teams have a common goal in mind. The researchers (“the outsiders”) involved with the Diversity Scorecard project facilitated the research process by crafting the problem and the framework but the equity indicator measurements were personalized by each team for their institution. The personalization of the Diversity Scorecard allows the process to be responsive for each unique situation and work culture.

The analysis of the effectiveness of the Diversity Scorecard process is two-fold, at the team and individual levels and at the institutional level. For example, did awareness of inequity occur at the team and individual level? What actions were taken as a result of this increased awareness either collectively or individually? At the institutional level, are there educational outcome data that support changes in equity? Over time, the answers to these questions can provide a way to assess whether or not progress is being made to increase equity. The baseline data provide a starting point for improvement. Then improvement targets can be set to drive actions that will be taken to lead to equity (Bensimon, 2004).

Through the research of the Diversity Scorecard project, Bensimon et al., (2004) found that the majority of those involved were surprised to find that inequity was campus-wide and pervasive. This is an extremely important finding as well as a first step. The problem of inequity cannot be addressed without awareness and recognition of its existence. A powerful fact is that the teams generated this knowledge and awareness themselves through the Diversity Scorecard process. "...when practitioners are the researchers, the knowledge they generate is more likely to produce a conceptual shift" (Bensimon et. al., p. 116). An additional finding of the Diversity Scorecard project was that participants became committed to the value of the data-driven, decision-making process. In addition, participants appeared to be empowered and were more likely to advocate for change. Therefore, disaggregating basic data, identifying goals, reporting findings to the campus President, and the next steps to establish an on-going institutional process for monitoring progress and improvement create an accountability and action process that can improve campus equity if utilized.

Conclusion

Many individuals face barriers to access and opportunity that must be addressed. Dropout prevention and recovery strategies, universal design for learning principles, the Self-Determined Career Model, and the Diversity Scorecard project offer promising practices to address some of the access and opportunity issues. Education and quality of life are directly connected. Access to educational opportunities is dependent on keeping students in school and having ways to recover and reengage those who leave prior to completing secondary education.

Rigorous, relevant instruction and supportive relationships are critical for engaging students. The universal design for learning principles change the approach for presenting materials, student expression, and engagement from retrofitting and accommodations to access for all learners by design. The universal design approach to learning expects and respects diverse learning using multiple strategies to connect teachers and learners.

Teaching self-determination through the application of career development builds skills for students to take responsibility for developing their own opportunities. Students who have self-determination skills know how to access resources, find assistance, and identify support. These skills can be utilized to identify opportunities throughout one's lifetime.

The Diversity Scorecard project focus on improving equity provides tools that can be utilized to create change. Awareness, accountability, and informed decision-making are possible through documenting and evaluating the progress of those individuals who have a history of under-representation and under-preparation for postsecondary outcomes. The knowledge generated on equity and inequities can be utilized to improve access, opportunities, and educational outcomes.

Due to persistent efforts (e.g., Perkins legislation) to reduce and eliminate barriers to access and opportunity, improvements have materialized. Nevertheless much more still needs to be done to truly have access and opportunity for *all* learners. The practices highlighted in this article provide some evidence-based ways to continue to improve educational outcomes. "An educational system isn't worth a great deal if it teaches young people how to make a living but doesn't teach them how to make a life."

– Source Unknown ♦

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OCCRL's Role in Implementation and Evaluation of Perkins IV Programs of Study

by Debra D. Bragg and Kathleen Marie Oertle

The Office of Community College Research and Leadership (OCCRL) was created at the University of Illinois at Urbana-Champaign in 1989. Its vision and mission is dedicated to research, evaluation and leadership development to improve the quality of community college education in the state of Illinois. Over the years, OCCRL has enlarged its outreach to a national audience. Partnerships with colleges, universities, state agencies, the federal government, and other organizations provide the impetus to study and disseminate knowledge on various educational policies and practices. Research on the transition of youth and adults to college and careers is an especially important dimension of OCCRL's work (see: <http://occr.ed.uiuc.edu>.)

Currently, OCCRL is partnering with the Illinois Community College Board (ICCB), the Illinois State Board of Education (ISBE), and the Illinois Center for Specialized Professional Support (ICSPS) to guide the development and implementation of the Programs of Study called for in the new Carl D. Perkins Career and Technical Education legislation. The emphasis of Perkins IV and Programs of Study is academic and CTE courses that allow students to pursue career pathways, beginning in the K-12 and extending to the community college and university levels. In the state of Illinois, Programs of Study are sequences of courses that incorporate a non-duplicative progression of secondary and postsecondary (community college and university) education.

Getting Started

To facilitate implementation of the new federal legislation, OCCRL was commissioned to support planning for the Perkins IV legislation through the facilitation of regional meetings that were tasked with two primary goals: a) to envision and formulate plans for systemic change, restructuring and improving practice, and b) to identify policy changes that will enhance CTE programs statewide. Between late March and mid May 2007, five regional meetings were held in the following locations: Lincoln Land Community College, Springfield; Parkland College, Champaign; Chicago Public Schools, Chicago; Waubesa Community College, Sugar Grove; and Rend Lake College, Ina. Over 150 participants representing secondary and postsecondary education were involved. Following the meetings, OCCRL director, Debra Bragg, reported results to the state, including posing questions regarding Programs of Study that addressed implementation practices, standards, and evaluation. Supporting this effort, Collin Ruud, OCCRL research assistant, investigated implementation of Programs of Study in several states, identifying policies, procedures, and notable strategies. OCCRL staff, Natasha Jankowski, Jason Taylor and

Catherine Kirby, contacted 18 states (California, Florida, Georgia, Idaho, Indiana, Kentucky, Maryland, Minnesota, Montana, Nebraska, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Virginia, Washington, and Wisconsin), conducting in-depth interviews with state leaders in nine states. The findings revealed important lessons for Programs of Study in Illinois. An important product of this work is "An Introduction to Illinois CTE Programs of Study", which appears on the OCCRL website at: <http://occr.ed.uiuc.edu/Projects/perkins/files/POSmailer.pdf>. Companion PowerPoint slides appear at: <http://occr.ed.uiuc.edu/Projects/perkins/files/POSpowerpoint.pps>.

Numerous meetings have occurred since Spring 2007 involving practitioners and the Programs of Study State Planning Team to further develop Illinois' plan to roll out Programs of Study. The State Planning Team, which consists of approximately 30 members from four organizations (ISBE, ICCB, OCCRL, and ICSPS), continues to convene and collaborate. In addition, a leadership group meets quarterly for progress updates and to make key decisions. Supporting documents can be found at <http://occr.ed.uiuc.edu/Projects/perkins/documents.asp>.

Guiding Principles and Design Elements for Programs of Study

OCCRL is leading the state's efforts to create guiding principles and associated design elements to aid local implementation and evaluation of Programs of Study. Six workgroups of practitioners and state education leaders are working collaboratively to create a conceptual framework for implementation and evaluation. The framework is designed to foster systematic thinking and change at all levels. The guiding principles and design elements are based on prior research, knowledge of best practice, and other literature. In particular, OCCRL staff drew upon resources about Perkins IV requirements, accreditation models, High Schools That Work (HSTW) of the Southern Regional Education Board (SREB), Workforce Investment Act (WIA), Adult Education, the Critical Skills Shortage Initiative (CSSI), the Community College Transition Institute (CCTI) and other initiatives. The guiding principles and design elements were cross-walked with the Perkins IV Indicators and state requirements from the 5-year plan, the Pathway Development Team (PDT) application, the Partnership for College and Career Success (PCCS) requirements, and ISBE's CTE Improvement and Perkins IV Grants supporting guidelines. They were also cross-walked with the National High School Center topic areas for school improvement, the Spellings Commission report on higher education, the Higher Learning Commission (HLC), and other relevant resources and documents.

Since summer 2008, the OCCRL has worked closely with the ICCB, ISBE, and ICSPS to create a set of guiding principles and design elements for Programs of Study. Throughout the fall, six workgroups have been facilitated by OCCRL staff, with personnel employed by the ICSPS leading the professional development workgroup. Each workgroup was given the task to review and comment on the guiding principle and design elements. In addition, ideas about evidence of impact will be gathered to help in the design of evaluation system to assess whether Programs of Study are being implemented successfully. The six principles and principles statements appear below.

with the first offering on December 10, 2008. The Programs of Study Self-Assessment Workshop is designed to give stakeholders (state decision makers, secondary and postsecondary administrators, faculty, staff, and business professionals) a better understanding of Perkins IV Programs of Study implementation and evaluation.

Future Activities

OCCRL will continue to play a critical role in the planning and implementation of Programs of Study in Illinois. Plans for state

A Framework for Local Implementation and Evaluation of Programs of Study

| Principle | Principle Statement |
|---|---|
| 1. Leadership, organization and support | Programs of Study are developed, supported and led with guidance from collaborative Partners. |
| 2. Access, equity, and opportunity | Each and every student has access to educational opportunities and services that enable their success. |
| 3. Alignment and transition | Education and training providers, with input from business and industry, enhance alignment that facilitates student transition through the educational pipeline. |
| 4. Enhanced curriculum and instruction | Curriculum and pedagogy involve rigorous and relevant instruction that enhance learning and enable students to attain academic and technical standards and credentials. |
| 5. Professional preparation and development | Comprehensive and continuous professional development that impacts teaching and learning is delivered to enhance the recruitment, preparation, and retention of qualified instructional and administrative staff. |
| 6. Program improvement and accountability | Data are collected, shared, and utilized to improve outcomes and demonstrate accountability. |

More about the guiding principles and design elements as well as others resources on Programs of Study see: <http://occr.ed.uiuc.edu/Projects/perkins/principles.asp>

Self-Assessment of Programs of Study

During summer/fall 2008, a Self-Assessment Tool was created by OCCRL to assist local practitioners affiliated with the Partnerships for College and Career Success (PCCS) to conduct a systematic review of current CTE programs. Information gathered through the Self-Assessment is important to planning and implementation of Programs of Study. The process facilitates reflective dialogue among partners. The Self-Assessment tool is divided into six sections: *Section I: The Partners, Section II: Employers and Other Partners, Section III: Curriculum Inventory, Section IV: Programs of Study Readiness, Section V: Programs of Study Design Elements, and Section VI: Programs of Study Implementation Review.* The Self-Assessment tool can be found at <http://occr.ed.uiuc.edu/Projects/perkins/files/POS-self-assessment.pdf>

Professional development opportunities focused on Programs of Study are being made available throughout the state, beginning

and local implementation are well underway, with attention increasingly focused on evaluation, including linking student outcomes to accountability and program improvement. By gathering and using data, local partnerships will be positioned to make needed changes in student academic performance. As data systems become more user-friendly, OCCRL intends to work with the state and local partnerships to support data-driven approaches to decision making, program implementation, and student outcomes evaluation. Better prepared students are more likely to transition to college ready to learn and meet the demands of a fast-paced and increasingly globalized workplace. ♦

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What's Unique About Programs of Study? Three CTE Experts Respond

by Catherine Kirby

The passage of Perkins IV charged states with creating at least one program of study. Illinois has encouraged local Partnerships for College and Career Success (PCCS) to apply to be on a Partnership Development Team (PDT), comprised of one or more Partnerships. Update editor Catherine Kirby posed the following question to three nationally recognized experts in career and technical education. They include Rich Katt, Nebraska's State Director for Career Education; Ann Benson, former Director of Career and Technical Education for the state of Oklahoma and now a CTE consultant; and Deb Mills, Vice President for Partnerships at COD.

UPDATE: *Many practitioners experienced with Perkins III are uncertain about how creating programs of study will differ from the work they have already done in creating integrated and articulated curriculum under previous Perkins legislation. What advice and insight would you give them about the differences you see? How should their approach differ? Where should they focus their attention?*

Rich Katt: In a word: collaboration. The law says secondary needs to be aligned to postsecondary and postsecondary needs to be aligned to secondary. From a postsecondary perspective, it really hasn't been that way. We've tried to say "Look, the onus is both ways now, not just one way [from secondary to postsecondary]." In some cases collaboration can start with something simple as getting together to identify the postsecondary programs of study that align most closely to the secondary ones. And that's happening through the curriculum workshops that we're doing in Nebraska as we go forward, cluster by cluster. This is the new spirit of collaboration: one that goes both ways.

Ann Benson: We have a crisis in education where we have only 70% of our incoming 9th graders graduating high school. So it's evident that what we're doing now isn't working. What programs of study offer is that all coursework has to be academic and career/technical and actually lead somewhere. We have to show students that as a result of spending time in high school they will get a degree, license or credential.

When you look at other reports about high school drop out rates and the reasons for that, plus when you talk to students, they say they're bored. In my mind, if they're bored, it's because students don't see the relevance of what they're learning. If we can be creative and get students into clusters and master the cluster-level knowledge and skills identified by industry to help them be successful, then all of these students will be successful in being both college and career ready.

We've got to do something because we're losing too many kids. If you're involved in work related to Perkins just to meet the Perkins compliance requirements or just to get Perkins money, those are the two sorriest reasons there are. Perkins work with programs of study should not be looked at as a federal requirement of the law but as an opportunity to provide students with direction and relevance for their educational experience.

Somewhere along the way since Perkins III, we lost sight of what tech prep was all about. In the early days, we talked about two models for tech prep. One was "time-shortened" and the second was "skill enhanced." We got so caught up in shortening the educational time to degree (credits-in-escrow and such) that we neglected the enhancement of skills.

Articulation resulting from tech prep has been mostly confined to program to program far more so than secondary to postsecondary. For example, we saw lots of secondary auto-tech courses articulated with postsecondary auto tech courses, but they didn't include the whole picture – including the academic side of things. Even where this has occurred, it's been restricted to individual institutions that work with only certain other institutions. But with Perkins IV we're talking about designing a program that is personalized, is more broad based and inclusive, and ensures students get both academic and career preparation that leads somewhere.

When we implement the concept of clusters, pathways and programs of study found in Perkins IV, we can't identify the subset of students who are "career" bound because within the cluster structure, all students are career bound. Programs of study means that we create a system where there is a consistent and uniform process for helping to guide young people, making sure they get into the coursework that leads somewhere, and gives them the meaningful learning they need in high school. If I were advising [CTE leaders], I would say pull out numbers – get the data – and show what's currently happening to too

many kids; it's a dismal picture. Considering the alternatives, how can you not believe that [programs of study] is the not right thing to do?

Deb Mills: As I travel around the country in my work with CORD, I hear some version of this question a lot. I usually respond by asking a few probing questions at the end of the discussion that ensues, I find that the implementation of programs people think are aligned with Perkins IV programs of study do not actually meet the full intention of the legislation. Upon some reflection, I've categorized them into four curriculum development "models" (although there is some overlap between them.) I've given each a name that speaks to the main focus. I'll summarize them and then conclude with what folks should be doing to build programs of study.

Articulated Curriculum: This is where typically each separate educational level (secondary and postsecondary) builds their own curriculum and tries to "adjoin" the curricula after it has been built. This is usually done in an "articulation meeting". We rejoice when we have an overlap because now we can award articulated credit. The downfall of this approach is that building curricula separately makes articulation awkward and disjointed. Instead, the secondary and postsecondary partners need to build the curricula together and lay it over two educational levels/institutions.

CTE Coursework Only: This model involves building the CTE coursework together but not doing the same with the academic and employability parts of the curriculum content. I see this a lot, and it falls far short of the kind of comprehensive curriculum reform Perkins IV calls for.

High School Focus Only: This model looks at cross-walking the knowledge and skills sets (standards) to the secondary level only. The postsecondary institution either has its curriculum in place or perceives that the postsecondary curriculum do not need modification. This is not building it together.

Working with the Existing Programs Only: Many times school leaders look at the programs they're offering and begin the work of building curriculum frameworks. That is NOT where one should begin. Building curriculum frameworks should begin with looking at economic development and workforce needs data. What occupations will be in high demand and have high wages? Unfortunately, many schools begin with the program offerings that they have because a teacher likes to teach the course, the students like the classes, or they have the equipment to offer the program. If there is not a high-demand, high-wage job at the end then we have done the student a disservice. From my perspective the curriculum framework process should begin with economic development and workforce development data.

Instead of any of those four scenarios, here's the advice I give:

- Secondary and postsecondary institutions should build the curriculum together and lay it over two institutions.
- Build on what is needed in your region and the state for economic development.
- Build on standards including academic, skills, and employability standards. Career Clusters have samples of knowledge and skills statements.
- Review them for modification with local business/industry

There are two scenarios how this can happen. They are:

1. Where the curriculum does not currently exist:
 - Gather the standards (Career Clusters has knowledge & skill statements which are a great place to start).
 - Modify these models to fit your area's needs.
 - Have local business/industry also look at them for local adaptation and enhancement.
2. Where curriculum does exist:
 - Outline a blank template (curriculum framework grid) and put in high school graduation coursework and postsecondary general education coursework.
 - Design new or select existing career foundation courses (9 & 10th grade), technical core coursework (11 & 12th grade), and postsecondary specialty courses.
 - Put in possible electives
 - Crosswalk the cluster-level knowledge and skills statements from Career Clusters and the skills and national standards from associations and your courses. Ask questions like: Where is each skill taught? Where are there overlaps? Is the overlap necessary to reinforce the skill or is it redundant? Do any courses need to be added or can existing courses be revised to include what they are missing?
 - Once the curriculum framework has been completed, the standards to be covered in each course identified, and the assessment strategy formulated, curriculum development can proceed (e.g. course outline, units, specific learning objectives, individual lesson plans)
 - Finally, share them with local business/industry and remember to review them yearly and revise when necessary.

This is just the curriculum development piece of programs of study. The law intends for this process to include a lot more, like professional development and using data to make decisions etc. But this is a start! ♦

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The College and Career Readiness Act Evaluation: Early Findings

by Sadya Khan

Introduction

Rising remediation rates among college students are leading to increased time for completion of degree, additional costs for students and colleges, and financial aid being used on courses that do not count towards a degree. In response to these issues, in 2007 the state of Illinois passed the College and Career Readiness Act (CCR Act), Public Act 095-0694, to fund pilot projects consisting of a community college and partner high schools to support the alignment of K-12 curriculum with college level coursework, as well as better prepare students to be successful in transitioning from high school to college. The CCR Act has five main purposes: 1) Align ACT scores to community college courses to diagnose college readiness; 2) Reduce remediation through college prep courses, college readiness skills, and successful transitions; 3) Align high school and college curricula; 4) Provide resources and academic support to students; and 5) Develop an evaluation process to measure the effectiveness of readiness programs.

This three-year pilot study was initiated and executed by the Illinois Community College Board (ICCB), who granted the Office of Community College Research and Leadership (OCCRL) the opportunity to research and evaluate the pilot projects. This study is co-directed by Debra Bragg and Lorenzo Baber of the Department of Educational Organization and Leadership in the College of Education at UIUC. Research staff also includes Sadya Khan, project coordinator, and Jessica Barrientos and Erin Castro, research assistants. The purpose of this article is to highlight the importance of the Act, as well as share some key findings from year one of the study.

Background

The National Center for Education Statistics (NCES) (2003), Condition of Education report confirms that virtually every community college in the nation offers remedial courses, and a national study by Jenkins and Boswell (2002) reveals that over half of community college students require some remedial course work. Venezia, Callan, Finney, Kirst, and Usdan (2005) confirm that K-12 systems are not well connected to colleges, resulting in many students not having the requisite skills to enter college without taking remedial coursework. Their research reflects national figures reported by NCES and other scholars, showing that almost half of entering college students are required to take remedial courses, with differences in college-going and college success (retention) being correlated with academic preparedness, income-level, race/ethnicity, and other related educational, social and economic variables. Lack of rigorous academic course work at the secondary level contributes

to students' inability to enter college ready to engage in college-level studies, sometimes referred to as "college readiness".

Underlying the CCR Act is the assumption that both high schools and colleges are responsible for ensuring that high school students are prepared to enter college ready to learn at the college level and that they are aware of the college standards that await students. This study demonstrates the importance of examining the issues of college readiness, curriculum alignment and remediation for students, high schools, and community colleges in sites selected to pilot the CCR Act in Illinois. The CCR Act has created the opportunity for Illinois to examine and reflect upon these key educational issues and determine the potential for various strategies and approaches to better prepare high school students for college.

Methodology

The CCR pilot study consists of five community college sites: John A. Logan College, Moraine Valley Community College, Shawnee Community College, South Suburban College, and Southwestern Illinois College. The state of Illinois distributed grants to these five schools, which were used for a variety of purposes, including the hiring of new personnel and faculty members and the purchase of student incentives and classroom equipment. Ultimately, the goals of the pilot sites were to create college preparatory initiatives, improve students' college readiness, and better align high school and college curricula in order to reduce remediation of students prior to their entering college.

OCCRL's evaluation team conducted site visits to all five schools throughout year one. Through interviews with administrators, faculty, and students and focus groups with students, OCCRL staff gathered information to outline goals, key features, and barriers and challenges associated with the initial implementation of the CCR pilot programs. Key evaluation questions targeted issues such as collaboration among the multiple partners in the programs, the various policies and practices employed by the CCR partners (high schools, community colleges, others) in conjunction with college preparatory and orientation programs, and the role of ICCB and other local and state organizations in supporting the CCR Act.

Key Findings

During the first year of the grant, the pilot sites implemented a variety of strategies to address the goals of the CCR Act. Most of the community colleges set up collaborative meetings between community college faculty and administrators and high

school faculty and administrators to compare common grading procedures in an effort to align standards and expectations. Some schools implemented semester long programs that offered students the chance to take courses to improve their reading, mathematics, and college study skills before entering college. Other schools offered orientations and workshops to better acclimate students to what they can expect in college. Many of the schools did a combination of these activities. These programs reached a range of students from high school sophomores to recently graduated seniors, with the most participants being at the junior level.

Other cross-case findings include:

- The community colleges relied on established partnerships with feeder high schools to promote the CCR pilot program and recruit students.
- Collaborative efforts and meetings between high school and college faculty were very rewarding and encouraging of curriculum alignment.
- High school counselors and parents were crucial to the interest, recruitment, and retention of students.
- Because ACT test scores were not accessible in the time-frame needed to place students, most sites used COMPASS testing to determine the level of remediation and college placement.
- Most sites considered the instruction in “college knowledge” an important component of the remediation program, as it provided students the chance to learn about successful studying and testing strategies, goal setting, time management, and career planning.
- Each site that offered a college preparatory (developmental) program sought ways to incorporate a tutoring component. In some cases, tutoring was built into the coursework, while other colleges offered students the chance to receive extra academic assistance outside of the classroom.
- Most pilot program sites focused on college preparatory programs in math, with only a couple of schools offering specific English courses.

Moving Forward

There are some key issues that will be examined as the pilot sites and OCCRL move forward into years two and three of the CCR Act. One priority will be enhancing the coordination of state-level activities with the evaluation of local pilot pro-

grams. Identifying the target student group and college preparatory program components and aligning them with student learning outcomes is important. Also, to address the intent of the CCR legislation, it is important to demonstrate the value of a sub-set of outcomes on college and career readiness and understand how these measures fit with other “pipeline” initiatives employed in the state. There must also be a greater focus on examining ways to recruit and retain students, especially after the CCR grant ends. Long-term solutions and sustainable practices that address the growing remediation problem are key as OCCRL’s evaluation moves to years two and three.

Throughout the next two years, the evaluation will seek to ascertain the impact of the CCR pilot programs on high school students’ academic preparation to enter college without needing remediation. The study will explore whether the college preparatory programs and supplemental services are effective. Do students complete the programs, and how do they perform in math, reading, and writing? Are students prepared to begin college and able to succeed in taking college level coursework? Results of the evaluation are vitally important to determining the impact and viability of future programs and practices associated with improving college and career readiness. ♦

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The Office of Community College Research and Leadership (OCCRL) was established in 1989 at the University of Illinois at Urbana-Champaign. Our primary mission is to provide research, leadership, and service to community college leaders and assist in improving the quality of education in the Illinois community college system. Projects of this office are supported by the Illinois Community College Board (ICCB), and are coordinated with the Illinois State Board of Education (ISBE), along with other state, federal, and private and not-for-profit organizations. The contents of our Briefs and bi-annual UPDATE newsletters do not necessarily represent the positions or policies of the ICCB, OCCRL, or the University of Illinois. Comments or inquiries about our publications are welcome and should be directed to OCCRL@uiuc.edu. This issue and back issues of UPDATE can be found on the web at: <http://occr.ed.uiuc.edu>.

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