

**PREPARING TO TEACH IN CROSS-DISCIPLINARY COURSES**

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**PREPARING TO TEACH IN CROSS-DISCIPLINARY COURSES**

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## **PREPARING TO TEACH IN CROSS-DISCIPLINARY COURSES**

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### **Abstract**

#### **Statement of the Problem**

In the first decade of the 21<sup>st</sup> century, students who had been dislocated from occupational settings were returning to higher education. Upon entering higher education, academic skills needed to be developed in conjunction with skills developed in course content. Across discipline instructors needed to assess current practices and assess current students to ascertain any common strengths and deficits within both student group and content. In addition, instructors needed to be able to see value in cross-disciplinary instruction in order to make collaborative efforts worthwhile.

At this point the ability to collaborate and teach across disciplines needed to be developed. Remembering that the success of students was the real end goal, instructors were trained to understand each other's subject areas in a broad sense; so class time would reinforce content. Instructors were also trained to share possession of "their" classrooms, "their" students, "their" methods, "their" teaching styles, etc. Cross-disciplinary instruction required a mindset of equality between instructors.

#### **Methods and Procedures**

A review of literature on cross-disciplinary instruction, returning adult learners' needs, teacher collaboration, and accelerated learning was conducted. Internet researches were conducted to establish what types of cross-disciplinary programs were being offered at the time of this study. This researcher had the opportunity to teach across disciplines within a

collaborative effort. Observations from this experience were included in this study. Findings were summarized and recommendations were provided.

### **Summary of Results**

Results of this study revealed that dislocated workers entered higher education needing a different type of instruction to be successful. Students were best served by instructors collaborating across disciplines. Cross-discipline instruction was a new skill to many instructors and preparation to instruct needed to include specific skill building.

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## **Chapter One: Introduction**

With the shift in the workplace due to the loss of manufacturing jobs in the early 2000s, an influx of adults returned to higher education due to displacement from jobs. Adults were unprepared to enter higher education because many had not been in formal education since completing high school and yet sought higher education as a means out of their current economic status. Although degrees were available to be obtained that could lead to self-supporting employment, the avenue of access and the ability to progress through the academic structure was often filled with unseen barriers for adult dislocated workers. Barriers for returning adult students included lack of academic skills and personal monetary and time constraints.

Addressing these barriers to progress in higher education was the aim of teaching in cross-disciplinary courses. Oftentimes, the content of the specific course was not the element that needed to be addressed. Before becoming dislocated and before entering higher education, these adults navigated through their lives by addressing what needed to be addressed or remembering what needed to be remembered. However, once enrolled in the academic world, learning styles, note-taking, time management, and using educational technology were additional soft skills that needed to be developed.

Thus, a pairing of cross-disciplinary instructors was made to create success for the returning adult learner. This pairing of a content instructor who assessed learning via obtainment of occupational skills with an instructor in the field of advising or college success who assessed soft skills through both the ability of the student to progress in the higher education courses and reflect upon the soft skill change and attainment was put into place. The pairing of instructors in cross-disciplinary courses called for its own preparation and collaborative tools. The pairing of

instructors across disciplines functioned as collaborative teaching with both instructors teaching individual lessons to the same cohort student group.

### **Statement of the Problem**

The problems that were addressed by this researcher were the following:

- How could a returning adult student, dislocated from employment, best be served to increase academic success/achievement?
- How could instructors bolster their students through collaborative efforts?

The assumption was made that returning dislocated workers needed collaborative efforts on the part of cross-disciplinary instructors in order to help the students succeed.

In order to build the collaboration, instructors needed to evaluate current practices and assess current students' academic skill levels to ascertain any common strengths and deficits within both the student group and the content. In addition, instructors needed to be able to see value in their collaboration in order to make their efforts worthwhile.

At this point the ability to collaborate and teach across disciplines needed to be developed. Remembering that the success of students was the real end goal, instructors were trained to understand each other's subject areas in a broad sense so that class time would reinforce content. Instructors were also trained to share possession of "their" classrooms, "their" students, "their" methods, "their" teaching styles, etc. Cross-disciplinary instruction required a mindset of equality between instructors.

### **Definition of Terms**

Adult Learner: Having a rich store of life experiences equipping one to ask meaningful questions and make connections between coursework and daily life (Ellis, 2011).

Barrier: That which prevents someone from progressing. A barrier can be known or unknown.

Collaborative: Working with others to achieve a common goal (Ellis, 2011).

Content: The specific information to be learned in order to be certified, accredited, etc.

Hard skills: Skills that can be seen and/or tested. Being able to memorize a list or perform a task is the mastering of a hard skill.

Higher Education: In comparison with high school, students do more reading and have more to write, more problems to solve, and more to remember. There will probably be fewer tests, and the grading will be harder (Ellis, 2011).

Soft skills: Skills which develop personal change, that are not easily assessed through tests or observation. Being able to expand one's learning style is soft skill attainment.

### **Delimitations of Research**

The research was conducted in and through the Madison Area Technical College and the UW-Platteville Library, over thirty (30) days. Primary literature searches were conducted via the Internet with EbscoHost as the primary source. Key search topics included the following: *team teaching, cross-disciplinary approaches, general education and technical education accelerated, and returning adult learners.*

### **Method of Approach**

A review of literature on cross-disciplinary instruction including curricula development and adaptation; returning adult learners' needs, teacher collaboration, and accelerated learning was conducted. Internet searches were conducted to establish what types of cross-disciplinary programs were being offered at the time of this study. In addition, this researcher had the opportunity to teach across disciplines within a collaborative effort. Observations from this experience were included in this study. Findings were summarized and recommendations were provided in this report.



## **Chapter 2: Review of Literature**

At the time of this study, instructor training for an educational degree included very basic and limited information about collaborative and cross-disciplinary teaching. The purpose of this literature review was to find additional information for instructors who wished to begin cross-disciplinary instruction. In reviewing the literature pertaining to preparing to teach in cross-disciplinary courses, information was gathered from studies that addressed the following: cross-disciplinary instruction, returning adult learners' needs, teacher collaboration, and accelerated learning. Implications of this research informed recommendations for instructor training pertaining to emerging demands in higher education for greater collaborative and cross-disciplinary teaching.

### **Cross-disciplinary Instruction**

Cross-disciplinary instruction creates classes lead by instructors of two different disciplines. This study addressed the two disciplines of health sciences and academic skills.

In reviewing literature related to cross-disciplinary instruction, several items were identified as being pertinent when preparing to teach in a collaborative setting. First, many instructors identified a need for additional skills to succeed in this new type of teaching strategy. As demonstrated by the following quote from a study completed at Larapinta, an Australian high school, the skill set needed to team teach across disciplines is similar for any age students.

Staff at Larapinta are continually presented with challenges that stretch their personal learning and ultimately enhance their teaching practice. Working collaboratively in Teaching and Learning Teams (TLT's) teachers support one another and utilize each other's skills to provide exciting teaching and learning opportunities for students. (Staff Committed, 2005).

Thus, instructors in this cross-disciplinary instructional setting were challenged to develop new skills, and teaching methods were enhanced. Instructors developed the ability to listen to each other more successfully, take efficient notes from the other instructor's lectures, and define and create curriculum better suited to blend academic skills no matter the subject area. Instructors desired the ability to expand skills to increase teaching success.

Second, instructors teaching across disciplines reflected value in collaboration. Instructors believed in working together and increased the ability to collaborate. Instructors remembered student success as the goal, and assessed instructor methods at the end of instruction. "Co-operative teaching is not just putting students into groups and expecting them to work together--it is making them take responsibility for the end product, and self-monitor" (Teamwork is the Key, 1997). Successful teaching valued cross-discipline instruction, furthered student success, developed collaboration as a value, and assessed methods during implementation.

Third, teaching across disciplines required a mindset of equality between instructors. Instructors were trained to recognize a mindset of possessiveness of "their" classrooms, "their" students, "their" methods, and "their" teaching styles. The experience of this researcher in cross-disciplinary instruction was that both instructors required joint assessment and reflection outside of class time on a weekly basis. Joint reflection and assessment focused upon effective strategies for both instructors to employ while collaboratively teaching. Ford & Gray noted similar circumstances, "Such collaboration is not without its obstacles. Questions of authority and credibility can be intertwined" (2011).

Instructors preparing to teach in cross-disciplinary courses had usually not yet developed collaborative teaching skills and did not recognize an unwillingness to share methods, students,

and physical space. Instructors teaching across disciplines benefitted from developing skills to instruct collaboratively. According to Hiser at Kapi'olani Community College in Honolulu, "[E]veryone benefits from being in the mix" (Hiser, 2008).

### **Returning Adult Learners' Needs**

Adult students experience a unique set of transition challenges. Because of the growing numbers of returning adult students, institutions of higher education needed to understand the characteristics and needs of this student cohort. Colleges and universities were able to facilitate adult student success by addressing returning adult learners' needs. "For these students, attending college classes becomes an additional stressor to that of losing a job and income" (Hardin, 2008). Adult students wanted to register, gain skills and knowledge and complete coursework as quickly as possible in order to re-enter the workplace. Accelerated learning was a strategy that could meet those needs.

In reviewing literature related to cross-disciplinary instruction, returning adult learners' needs were clearly identified. Because of the ongoing economic crisis worldwide at the time of this study, most institutes of higher education had become highly cognizant of adjusting to the influx of nontraditional students. Institutions of higher learning were dealing with the economic climate by adjusting their programming and recruiting strategies. Derby College acknowledged and facilitated the needs of nontraditional, economically disadvantaged students in its marketing materials. "The college environment is welcoming and friendly, our expert tutors are dedicated to learner success, and there's a wealth of support and guidance available to help everyone make the most of your time with us" (Supporting you back, 2009). Extra student services such as financial counseling and educational completion advising had to be provided and marketed when recruiting potential students to higher education. Institutions of higher education acknowledged

the influx of dislocated workers as students by directly focusing a portion of marketing strategies toward this population.

At the time of this study, the education community found a marked distinction between instructing adults and children. This distinction between student characteristics of recent high school graduates and the established adult, dislocated worker needed to be addressed within the learning environment. Adults through life experiences had methods of accessing, retaining, and digesting knowledge that children had not yet developed. Adults expected previous knowledge to be acknowledged and built upon and current abilities to be respected and developed (Bowl, 2007). Children came to the classroom with the instructor viewed as the expert to fill heads with knowledge previously unknown. Adults sought value in the education being accessed, they wanted to know why and how the skills being learned would improve their lives. “The evidence from the data suggests that adults have controlled the task in a different way and handled the demands of the task at hand more effectively” (Pinter, 2006).

Instructors preparing to teach across disciplines had to build into collaborative instruction knowledge of returning adult learners needs. Instruction included acknowledging skills adults already had and addressing fears about entering higher education.

Adults often have a wealth of experience[,] which can be built on to enable them to succeed in their learning. A good teacher of adults needs the skills and knowledge to build confidence... and to value the experience of the adult learner. (Bowl, 2007).

Reviewing the literature about the needs of returning adult learners also pointed out obstacles to adults that might not be experienced by students who were minors, or not adult aged. Returning adult learners faced unemployment, childcare, and lack of knowledge of how to be a student. “For example, adults may face issues with completion of courses, including personal

obstacles: health, money issues, job pressure, family pressure, lack of perseverance, and/or a problem with internal motivation” (Sharvashidze & Miles, 2011).

Adult students, whether new or returning to higher education, experienced a unique set of transition challenges. By understanding the characteristics and needs of this student cohort, colleges and universities would be better able to facilitate adult student success. Instructors recognized adult learners’ needs and worked to develop skills to address students’ needs collaboratively.

### **Teacher Collaboration**

Teacher collaboration involved instructors working jointly to create student success. Instructors worked collaboratively to ensure that curricular content and instructional methods dovetailed. Occupational settings that students had recently exited demanded collaboration among workers, and the value of collaborative skill building needed to be reflected in higher educational classrooms. Teacher collaboration became an important factor for instructors to stay current and relevant in the quickly changing world of the early 2000s. “It is our job to be up to date and current for our students” (Eger, 2011).

In addition, developing the ability of faculty/instructors to collaborate improved quality of instruction according to one study. Assessments of students’ success positively correlated with effective teacher collaboration. Higher education institutions that developed instructor collaboration skills as professional objectives demonstrated greater student achievement.

Not surprisingly the results show that the higher professional level attained by the teacher relates to greater changes of level by some of their students, but most effective in inducing more students to achieve five changes in levels is the collaboration of two teachers. (Laius & Miia, 2011, p. 134)

Teacher collaboration took time both in developmental stages and during implementation. Instructors were developing a new skill and needed to prepare before implementation and consistently assess while implementing. Collaboration skills were developed best in mentorship with experienced instructors who had developed collaboration skills. “Findings indicate that using on-site mentors [and] cohort instructor collaboration do indeed enhance teacher quality” (Brayon, 2011, p. 38).

Skill building in collaboration improved teaching quality by developing instructional skills and teacher satisfaction through shared practices and commitment to student success. Instructors appreciated the opportunity to share strengths, challenges, student concerns, and curricula development. Collaborative teaching that stressed instructors working together achieved more student success than instructors working alone. Effective teacher collaboration created the ability to successfully instruct within accelerated learning courses.

### **Accelerated Learning**

During the later decades of the 1900s, accelerated learning was a strategy that grew in popularity in the business of education. Colleges implemented accelerated learning strategies to stay up-to-date. Accelerated learning was defined as coursework shortened in duration. Accelerated learning for this researcher did not begin and end on traditional semester or quarterly schedules, instead class implementation began as soon as a large enough student count was enrolled. “With great demands on their time, these students want to complete their studies as quickly as possible” (Tatum, 2010, p. 35). Dislocated workers sought higher education to quickly be reemployed. Accelerated learning strategies met goals of decreased time to reemployment.

While the goal of shorter completion of coursework for reentry into employment was met, accelerated learning students in accelerated courses were often unprepared for the rigor of

coursework. Students entered accelerated learning expecting shorter timelines but were unaware of rigor intensity. Although student duration expectations matched programming, student academic skill level was mismatched in accelerated learning. Returning adults were unfamiliar with educational skills for achievement or how to figure out their own personal educational skill levels. Accelerated learning students did usually adjust to shortened timelines but needed to address heightened academic intensity in order to succeed.

This is a learning environment that brings together like-minded [adult] students who wish to engage in the curriculum at a level that is more rigorous [due to a shortened timeline] In terms of individual learning programs, some students can qualify for this type of program by attempting subject courses at the level above their normal cohort. (Reynolds, 2011, p. 14)

Desiring to increase student head counts, institutions of higher learning implemented accelerated learning strategies without considering student completion success. Methodology of accelerated learning had come at the expense of institutions offering coursework believed to match the desires of a fast-paced and rapidly-changing society. Assessment of student academic readiness and student skill levels for succeeding in higher education were put aside due to time constraints. Adult learners sought quick completion without possessing educational skills to complete coursework. “The pace of change has become so rapid that it affects every individual requiring prompt reaction and adaptation to the constantly shifting environment. This pace creates an increasing demand for fast short-term educational and training programs” (Serdyukov, 2008, p. 36).

Accelerated learning programs succeeded in terms of both reduced completion time and successful student completion when quality instructional practices were put into place.

Examples of high quality instructional practices reported were the following: teachers had excellent skills in collaboration, teachers assessed returning adult learner needs, and teachers had experience or mentoring in cross disciplinary instruction, allowing accelerated learning classes to be successful.

Finally accelerated learning approaches must be collaborative in nature, drawing on the supportive nature of social learning. In the end, the goal of accelerated learning is not only that students will learn faster, but also that they will learn more holistically. (Boyd, 2004, p. 42).

Students' ability to learn holistically meant the ability to implement the skills and knowledge learned within the skills and knowledge already in place. Education expanded students' abilities, for example, in higher level thinking skills..

Although many accelerated learning programs provided answers to current cultural dynamics such as the ability to return to employment in a shortened time span, the assurance was that dislocated adult learners received value in higher education, not just value in the ability to quickly complete programming.



### **Chapter 3: Summary Conclusions and Recommendations**

At the time of this study, many students had been dislocated from their occupational settings. Educational institutions began offering programs in nontraditional settings in order to meet the needs of a student population that did not fit traditional timeframes or the skill levels of more traditional students. Instructors in nontraditional programming were challenged to develop new professional skills to meet the needs of students who had been dislocated.

This writer had the opportunity to teach across disciplines within a collaborative effort. According to Laius & Miia (2011), collaboration at the start of programming affected student success rates. At the start of the cross-discipline instruction, students were assessed and some of the foundational student skills including time management, note taking, and educational technology knowledge were lacking and caused inability to succeed.

According to Bowl (2007), rewarding adult experiences should be built upon in order for students to succeed. In the experience of this researcher, programming objectives addressing the taxonomy of adult learning and effects of the current economic environment upon adult students needed to be developed at the beginning stages of course programming. Student educational success was the driving force behind course content, not the shortened timeline.

Students entered higher education with the desire to learn what would further their economic prospects, not have their time wasted, and build skills pertinent to current occupations. In order to provide effective instruction in courses based on accelerated learning and cross disciplinary content, according to Boyd, student success begins at entry with placement assessment (2004). This writer found that assessing educational skills levels at entry--math, writing, and reading placement scores--helped the instructors to design effective course content

across disciplines. Cross discipline instructors could then address challenges to successful completion within the student cohort.

## **Conclusions**

Several conclusions emerged as a result of this research. Cross discipline instructors needed to work together in order to create coursework that would build student success in both hard and soft skills so that the content area coursework could be better learned. The ability to collaborate instructionally and to team teach needed to be supported and encouraged from an administrative level. The methodology for instructional collaboration and team teaching needed to be understood and implemented. Across disciplines, instructors needed to view with value coursework from each discipline and recognize worth in developing teaching philosophy, skills, and strategies collaboratively for the purpose of enhancing student success.

Preparing to teach in cross-disciplinary courses could be developed using the model of instructor pairing. One instructor would be the content instructor, who is responsible for the rigor, coursework, and instruction of a program course that is required for graduation and attainment of the desired degree. Examples of such courses in the Nursing program might be Body Structure and Function and Medical Terminology. The second instructor would have content related to attainment of basic skills needed to be successful in the Nursing program coursework. Examples of such courses might be Reading and Student Success. The two disciplines addressed would be health related content and academic success content.

The following extended example from the writers experience could be used as a model for instructor collaboration across disciplines. Instructors in both areas met and developed a plan to pair the reading and student success coursework with the Medical Terminology and Body Structure and Function textbook and create coursework criteria for assignments. Student

classroom time was divided up to support times when content instruction needed to be top priority and times when academic support skills took precedence.

Reading skill development was done using the health content textbooks. This meant that students were best served to upgrade reading skills concurrently in the first healthcare course, Body Structure and Function, while attending two support classes, Academic Reading and Student Success. Reading skills taught included becoming a better reader and thinker, skimming, topic sentences, vocabulary in context, supporting details, inferences, purpose and tone, and argument. Topics were chosen by assessing skills needed as students read through the expansive amount of medical information in the coursework.

Student Success skills that were presented included entering the academic realm or becoming a student, time management, memory techniques, note taking, test-taking, critical thinking, certain technology skills, and communicating. All educational technology skill building was done using the coursework from the health-related content. In order to increase familiarity with instructional technology students were asked to submit assignments and assessments online during student success class. Trial and error had demonstrated that these students, much like other returning students, needed to learn how to be a student. Dislocated workers benefitted from the recognition of their academic needs both in content and support skill building.

At the end of the coursework, by reflection and assessing student outcomes, instructors teaching across disciplines assessed the development of their instructional skills and the challenges of collaborative instruction. Teaching in this type of programming requires preparation and a current knowledge of teaching methodologies. Respect for the process, a strong desire for individual student success, and an ability to collaborate effectively became the guiding principles that led instructors in this realm.

A summary of topics to include in soft skill development of dislocated workers entering higher education follows:

1. Successful transition into higher education
2. Personal learning styles working in partnership with different teaching styles
3. Textbook reading
4. Study skills
5. Time management
6. Test taking skills, specifically dealing with test anxiety and using the completed test as a tool
7. Note taking skills
8. Cohort status development with classmates
9. Professional behavior, specifically how to act in occupational settings, and developing professional writing skills, including grammar and tone

In summary, instructors who are involved in cross-disciplinary instruction should be offered training to work with students who have been dislocated. Students need to be assured that seeking higher education will help to obtain work, that the content instructed is current and relevant, and that instructors are working together to further student success. Instructors working across disciplines need to develop their instructional skills for collaboration in planning and presentation.

### **Recommendations**

Instructors preparing to teach in cross-disciplinary courses can build skills by addressing the following recommendations. Recommendations are both academic and instructional.

**Academic.** The list below pertains to course content in courses with cross-disciplinary instruction. Instructors need to include these recommendations in the curriculum planning.

- Address the eight topics listed previously (see page 20) during class time.
  - Successful transition into higher education
  - Personal learning styles working in partnership with different teaching styles
  - Textbook reading
  - Study skills
  - Time management
  - Test taking skills, specifically dealing with test anxiety and using the completed test as a tool
  - Note taking skills
  - Cohort status development with classmates
  - Professional behavior, specifically how to act in occupational settings, and developing professional writing skills, including grammar and tone
- Include in class time a guided, facilitated study hall so the habit of regular studying is reinforced.
- Perform textbook reading techniques with the content text.
- Store written assignments with technology tools.
- Grade written assignment and assessments in the educational technology platform used such as Blackboard or Desire 2 Learn.

- Help students to understand what professionalism means within the field of study and to the value of developing a professional network. For example, use a section of one class time to bring in business partner representatives to present to students what qualities are desired in potential and incumbent employees.

**Instructional.** The list below pertains to implementation of cross-disciplinary instruction.

Instructors need to include these recommendations concurrent with delivery of content.

- Create a flowchart/who's who of current instructors teaching across disciplines to be distributed to instructors and other staff who are preparing to teach in cross-disciplinary courses
- Attend a short instructors' training that addresses accelerated learning and historical documentation on cross-disciplinary instruction.
- Address methodology and taxonomy of instruction within accelerated learning for adults.
- Plan and assess content presentation and student skill building with the collaborating instructor on a regular basis
- Provide weekly summaries of student activities and progress to the advisor and any other instructors working with the same students.

In conclusion, when the population of incoming adult students includes dislocated workers, instructional plans developed with student success in mind would produce better student outcomes if cross-disciplinary instruction were to be included. Cross-discipline instruction requires specific preparation. Preparation includes both academic and instructional skills. Instructors teaching across disciplines should be convinced that this practice is best for student success and have a willingness to develop their own skill as instructors.

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