Intensive College Readiness Programs for Adult Education Students (IP-AES):

A Practitioner's Guide to Program Implementation

2016

60×30TX
Texas Higher Education Coordinating Board

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Preface

Over 60 percent of Texas jobs beyond 2020 will require a postsecondary degree, credential, or workforce certificate. Under the new Texas higher education strategic plan, *60x30TX*,[1] the state is committed to increasing certificate and degree attainment in order to maintain the growth, diversity, and vitality of the Texas economy, while remaining competitive nationally and internationally. From 2010 to 2014, the Texas Higher Education Coordinating Board (THECB) funded adult education-to-college transition programs that supported nontraditional, underprepared students entering colleges many years after high school graduation or after disrupted public education experiences[2]. One transition program funded by THECB was the Intensive College Readiness Program for Adult Education Students (IP-AES).

The THECB-funded IP-AES programs were intensive college transition programs that integrated federally supported adult education and literacy (AEL)[3] students into the college environment to support their transition and success in higher education academic programs. These programs utilized a short-term intervention using curriculum models aligned to the Texas College and Career Readiness Standards (TxCCRS). IP-AES programs targeted skill development using diagnostic instruments, intensive college and career advising and counseling, learning framework, and college knowledge skills that addressed academic weaknesses in an accelerated, intensive program structure. Students in these programs met 15-24 hours a week for a total of 120-150 hours, over a period of 6-10 weeks. While the programs may not have eliminated semester-length developmental education (DE) coursework for all participants, these programs often shortened the amount of time a student needed for pre-college level classes.

This Guide describes the program's components and its implementation process and focuses on the lessons learned. This document and other resources found in the appendices are provided as guidance for those wishing to design and implement an intensive model in an adult education program. Specifically, the Guide includes the following:

- Administrative and program structure
- Costs of implementation
- Student recruitment and selection
- Requirements and approach to goal setting
- Curriculum development, pedagogy, and learning assessment
- Guidelines on program evaluation

This Guide does not represent a prescriptive or rigid program design that can only be implemented in a particular way. Rather, it comprises a summary of the program components along with concrete tools that faculty, administrators, and curriculum coordinators may use and adapt to support their own intensive program design. To that end, the appendices include samples of recruitment flyers, intake forms, class schedules, lesson plans, student satisfaction surveys, and a curriculum framework.

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[1] See http://www.thecb.state.tx.us/reports/PDF/6862.PDF?CFID=33961630&CFTOKEN=69064370

[2] Students who took and passed the General Education Development (GED®) assessment and were awarded a Texas Certificate of High School Equivalency (TxCHSE) from the Texas Education Agency (TEA)

[3] Workforce Innovation and Opportunity Act, Title II (Adult and Family Literacy Act) programs

With the implementation of *60x30TX*, the overall goal for the state and for institutions of higher education is degree and a minimum Level 1 workforce certificate to support the economic landscape of Texas. To meet the goals of this plan, priority must be placed on quality programs that lead to college readiness and ultimately to degree and/or certificate completion for all student populations, including those who enter higher education underprepared. Resources supporting such programs should be shared across workforce programs, adult education programs, and higher education institutions in order to promote more widespread student access and success.

--THECB Staff, Division of College Readiness and Success

Section 1: Introduction

The Need for Adult Learners in Higher Education

The U.S. economy has become inextricably linked to a global economy in the 21st century, dramatically increasing the need for a more educated workforce. Economist Anthony Carnevale (among others) has documented the need for more citizens to earn postsecondary credentials, since most of today's jobs require higher academic and technical skill levels.[1] While most of the discussion about increasing college participation centers on current and recent high school graduates, adult learners are another important population that could potentially matriculate at higher education institutions.

According to the 2010 U.S. Census, approximately 39 million adults—about 18 percent of the adult population—have not earned a high school diploma or its equivalent.[2] Therefore, these individuals with postsecondary aspirations need to accomplish two goals: 1) obtain a high school credential or its equivalency and 2) make the necessary transition to enroll and succeed at a higher education institution. There are an additional 62 million adults who hold only a high school degree or credential.[3] Postsecondary attainment for adult learners is not only critically important for meeting the needs of the workforce, but it is also the pathway that determines entry into the middle class (and higher) for degree earners. The U.S. Census reported that in 2009 adults 18 years and older earned an average of $20,241 without a high school degree, $30,627 with a high school degree, $39,771 with an associate degree, and $56,665 with a bachelor's degree.[4]

Despite the need for adult learners to matriculate in college, most of the focus (and funding) in adult education has gone to programs for lower-skilled adults and to high school equivalency programs[5]—primarily those offering assessment preparation courses for the General Educational Development (GED®), the High School Equivalency Test (HiSET®,), or the Test Assessing Secondary Education (TASC®).[6] This focus is understandable, given that the first step for those without a high school degree is to obtain a Certificate of High School Equivalency (CHSE) by passing one of these assessments. However, a number of CHSE holders wish to continue their education in college but find themselves without the necessary academic skills to succeed in college-level coursework. Similarly situated are adults who graduated from high school but did not attend college immediately after graduation and now wish to continue their education; many of these adult learners also have academic deficiencies that may negatively impact their success in college.[7]

Although underprepared adult students with a high school degree or its equivalency can enroll directly in college and take developmental education courses, this path can prove difficult and costly for these individuals. The dropout rate for this population is high, particularly for those

[1] Carnevale (2007); Carnevale and Desrochers (2003)
[2] GED Testing Service (2012)
[3] U.S. Census Bureau (2014)
[4] U.S. Census Bureau (2012)
[5] Tamassia, Lennon, Yamamoto, and Kirsch (2007); Rutschow and Crary-Ross (2014)
[6] The Data Recognition Corporation| CTB developed the Test Assessing Secondary Completion (TASC test); the Educational Testing Service® developed the High School Equivalency Test (HiSET®); and the GED Testing Service developed the General Education Development (GED)®.
[7] Tokpah and Padak (2003)

who must start their college experience taking the very lowest level (sometimes the first of three levels) of developmental education courses in more than one discipline. Research studies indicate that the more time students spend in developmental education, the less likely they are to stay in school and earn a degree or certificate.[8]

College Readiness for Adult Learners

Because of these drop out patterns, college readiness is particularly important for the adult learner seeking entry into postsecondary education. David Conley defines college readiness as the level of preparation a student needs to enroll and succeed—without remediation—in a credit-bearing, general education course at a postsecondary institution.[9] The skills most germane to college readiness are reading, writing, and mathematics because these skills serve as a foundation for a wide range of curricular offerings in college. However, Conley acknowledges that "preparation" goes beyond content knowledge since other factors such as students' academic behaviors (e.g., study skills) also contribute to readiness. Many adult learners often lack the learning and study skills needed for college-level work because they have not been in an academic environment for many years. Furthermore, these leaners need to learn how to navigate the complicated postsecondary system itself, beginning with the processes of applying to college and for financial aid.[10] Accordingly, many young or mature adult learners who desire to further their education years after their high school graduation or after the attainment of an equivalency certificate face these challenges to closing gaps in content, learning skills, and college knowledge.

Transition Programs for Adult Leaners

Fortunately, some innovative adult education-to-postsecondary transition programs have emerged to address the needs of this important population before they matriculate in college.[11] The primary purpose of these programs is to prepare program graduates to enter college with either limited, or no additional remediation work needed in developmental education. Another purpose of transition programs is to provide participants with the learning and study skills associated with successful college students and with the knowledge of the full array of available college support services. Perhaps equally important is that these students enter college with the confidence to succeed in meeting their postsecondary education goals. These programs hold promise in changing the academic landscape for adult learners, and Texas has piloted transition programs for this population with noted success.

The Texas IP-AES Model

Beginning in 2010, the Texas Higher Education Coordinating Board (THECB) awarded grant funding to 12 adult education and literacy programs[12] in the state to establish accelerated transition programs for GED® graduates and reentering adult learners who were seeking to gain entrance into postsecondary education, but whose academic skills in reading, writing, and mathematics were below college level. The purpose of the programs—called Intensive College Readiness Programs for Adult Education Students (IP-AES)—is to provide participants with the

[8] Bailey (2009); Alliance for Excellent Education (2006)
[9] Conley (2008).
[10] Rutschow and Crary-Ross (2014); Zafft, Kallenbach, and Spohn (2006).
[11] Rutschow and Crary-Ross (2014); Zafft, Kallenbach, and Spohn (2006).
[12] In this Guide, the terms adult education and adult education and literacy refer to the federally supported Adult Education and Literacy (AEL) programs funded under Title II (Adult Education and Family Literacy Act or AEFLA) of the Workforce Investment Act and administered by the Texas Workforce Commission.

necessary skills to enter and become successful in college. The characteristics of the programs (as required or optional components of the original THECB Request for Applications) are summarized below.

Characteristics of the Texas IP-AES Programs

Target population	Holders of Texas Certificate of High School Equivalency (TxCHSE) graduates and high school graduates who are at least 20 years old
Entering student skill level	Largely, but not exclusively, 9th- to 11th-grade skills
Length of program	6 to 10 weeks, 4 to 5 days, 3 to 6 hours a day
Hours of Instruction	At least 120 clock hours
Number of students	25 to 80 per program per year, running 1 to 5 cohorts per year
Instructional topics	Reading, writing, mathematics, learning framework, college knowledge
Enrichment activities	Tutoring, academic advising, career counseling, mentoring
Other activities	Orientation sessions, closing ceremonies, campus tours
Location	On a community college campus or an adult educational center
Cost	Free to students, along with additional completion incentives
Budget	$800 per student enrolled on 5th class day and $800 upon completion
Evaluation methods	Formative evaluation, summative evaluation (e.g., pre- and post-testing), and short- and long-term tracking of college matriculation and success

The accelerated time frame of these programs was intended to mitigate some of the barriers adult learners often face. These barriers include inflexible and often heavy work schedules, parental responsibilities (many as single parents), and distrustful attitudes toward the educational system.[13] In addition to the accelerated schedule of the intensive program, many colleges and adult education programs offered IPAES classes during the late afternoon and evening hours, as well as on Saturdays, to accommodate students' work schedules.

The cohort model of IP-AES, unlike a rolling or open enrollment policy, allows instructors to complete a specified curriculum following a set instructional schedule. This short-term, managed enrollment system also eliminates the need for repetition of previously covered materials for new students entering the program. Further, cohort-based programs can foster participant bonding in which students learn to use each other as resources. This learning community concept can show participants the advantage of studying in groups when they get into college.[14]

[13] Rutschow and Crary-Ross (2014); Zafft, Kallenbach, and Spohn (2006).
[14] Engstrom and Tinto (2008); Tinto (1997).

Future Directions in Adult Education

For many years in the U.S., the primary focus of federally supported adult education was on GED® completion and literacy improvement for lower-skilled adults, including those for whom English is a second or other language. These activities remain critically important components of adult education programs. However, with the authorization of the Workforce Innovation and Opportunity Act (WIOA) in 2014, the goals and performance measures of Adult Education and Literacy (AEL) programs (under Title II of WIOA) have significantly changed. Transition to higher education and enrollment in postsecondary education and workforce training programs are notably linked with the performance outcomes of funded service providers. The importance of AEL to postsecondary transition is also reflected in high school equivalency assessments such as the Test Assessing Secondary Completion (TASC®), the High School Equivalency Test (HiSET®), and the GED ®, all of which are aligned to the College and Career Readiness Standards component of the Common Core State Standards, which have been adopted by 44 states.[15]

Texas does not use the college readiness standards of the Common Core because the state developed its own College and Career Readiness Standards (CCRS) in 2008.[16] However, high school equivalency assessments approved for use by the Texas State Board of Education (GED®, HiSET®, and TASC®) are also reflective of the standards in the Texas CCRS. The development of the Texas Success Initiative Assessment also provided a college readiness assessment aligned to both the Texas CCRS and the national Adult Education and Literacy standards. As adult education assessments change in Texas and the nation, so must the programs (and their curricula) that are designed to advance adult learners into higher education.

Access to, and success in, postsecondary education and training has become the bright-line test that determines entry into the middle class. In addition, the current and future growth of our technologically rich, highly adaptive economy will demand a workforce with higher-level skills, and the adult education and literacy population can be an integral contributor to this economy in the coming years.

Purpose and Structure of the IP-AES Practitioner's Guide

The purpose of this Practitioner's Guide (Guide) is to provide lessons learned from the contributing colleges, adult education programs, and the general program evaluation of the IP-AES. It is designed to offer adult education programs that may wish to develop and implement a transition program similar to the IP-AES the practical tools to support the different facets of program planning and implementation. To this end, this Guide draws from the following resources: 1) lessons learned from the four years of qualitative and quantitative data collected from the Texas IP-AES programs, 2) materials utilized in the Texas IP-AES programs, and 3) reviews of similar programs throughout the U.S. As appropriate, the Guide will offer different models of a program component, given that more than one approach to a particular practice can be viable and effective.

Following a brief review of the literature in the next section, the Guide will provide information on 12 components of a standard program plan which were utilized by the colleges

[15] U.S. Department of Education, Office of Vocational and Adult Education–now Office of Career, Technical, and Adult Education (2011); Pimentel (2013); National Governors Association for Best Practices and Council of Chief State School Officers (2010).

[16] Texas Higher Education Coordinating Board and Texas Education Agency (2009).

and adult education providers that developed and are continuing to implement intensive programs in Texas. Those components are 1) Administrative Structure, 2) Program Personnel, 3) Program Goals, 4) Program Structure, 5) Recruitment and Selection, 6) Curriculum Development, 7) Pedagogy, 8) Enrichment and Support Activities, 9) Learning Framework and College Knowledge, 10) Student Learning Assessment, 11) Professional Development, and 12) Program Evaluation.

In addition to describing these components and how they can be implemented, this Guide offers illustrative examples (found mostly in the appendices) from IP-AES programs in Texas. The material in this Guide is appropriate for administrators, curriculum coordinators, and educators who 1) have existing intensive college readiness transition programs and hope to enhance their current programming, 2) intend to develop similar transition programs for adult learners, and 3) work in traditional, developmental education settings and want to adapt aspects of the IP-AES model for their programing (e.g., as part of a “boot camp” for underprepared learners). Of course, those using the Guide may choose to modify their programs from the IP-AES model to accommodate their particular needs, while still drawing relevant components from IP-AES.

References for Section 1

Alliance for Excellent Education. (2006). *Paying double: Inadequate high schools and community college remediation*. Washington, DC: Author.

American Council on Education. (2011). *ACE and Pearson collaborate to transform GED® test, aligned with Common Core State Standards, based on 21st century initiative*. Washington DC: Author. Website: www.acenet.edu/news-room/Pages/ACE-and-Pearson-Collorate-to-Transform-GED®-Test.aspx.

Baily, T. (2009). *Rethinking developmental education in community college* (CCRC Brief Number 40). New York: Columbia University, Teachers College, Community College Research Center.

Carnevale, A. P. (2007). Access to opportunity: The need for universal education and training after high school. *Education Week*, 26(40), 34.

Carnevale, A. P., & Desrochers, D. (2003). *Standards for what? The economic roots of K–16 reform*. Princeton NJ: Education Testing Service.

Conley, D. T. (2008). Rethinking college readiness. *The New England Journal of Higher Education*, 22(5), 24-26.

Engstrom, C. M., & Tinto, V. (2008). Learning better together: The impact of learning communities on the persistence of low-income students. *Opportunity Matters*, 1(1), 5-21.

GED® Testing Service. (2012) *Annual statistical report on the GED® test*. Washington DC: Author.

National Governors Association for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards*. Washington DC: Author. Website: www.corestandards.org.

Pimentel, S. (2013). *College and career readiness standards for adult education*. Washington DC: MPR Associates, Inc.

Rutschow, E. Z., & Crary-Ross, S. (2014). *Beyond the GED®: Promising models for moving high school dropouts to college*. New York: MDRC.

Tamassia, C., Lennon, M., Yamamoto, K., & Kirsch, I. (2007). *Adult education in America: A first look at results from the adult education program and learner surveys*. Princeton, NJ: Education Testing Service.

Texas Higher Education Coordinating Board & Texas Education Agency (2009). *Texas College and Career Readiness Standards*. Austin, TX: Author. Website: www.thecb.state.tx.us/collegereadiness/crs.pdf.

Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 25(2), 2-8.

Tokpah, C. L., & Padak, N. (2003). Academic challenges. *Adult Learning*, 14(3), 8-10.

U.S. Census Bureau. (2012). *Mean earnings by highest degree earned: 2009*. Washington DC: Author.U.S. Department of Education, Office of Vocational and Adult Education–now Office of Career, Technical, and Adult Education. (2011). *Promoting college and career-ready standards in adult basic education* (Adult Basic and Literacy Education Fact Sheet). Washington DC: Author.

U.S Census Bureau (2014). *Educational attainment of the population 18 years and over, by age, race, sex, and Hispanic origin: 2014.* Current Population Survey, 2014 Annual Social and Economic Supplement. Washington DC: Author.

U.S. Department of Education, Office of Vocational and Adult Education–now Office of Career, Technical, and Adult Education. (2013). *Measures and methods for the National Reporting System for adult education*. Washington DC: Author.

Zafft, C., Kallenbach, S., & Spohn, J. (2006). *Transitioning adults to college: Adult basic education program models* (NCSALL Occasional Paper). Cambridge MA: National Center for the Study of Adult Learning and Literacy, Harvard Graduate School of Education.

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Section 2: Review of the Literature

Despite the efforts of transition programs to increase the number of adult learners in postsecondary institutions, educators face many challenges in achieving this goal. Foremost, relatively little is known about the effectiveness of these programs in enhancing the college readiness skills of this population and in increasing their matriculation and success rates in college. Controlled experimental studies of adult education transition programs are very limited, and much of the research has been qualitative in nature. Even for programs that have shown success in improving participants' college readiness skills, it is often difficult to determine which program components are the most critical in accomplishing these gains.[1] The purpose of this section is to 1) identify the components often found in college readiness transition programs for adult learners and 2) review the literature on the efficacy of these components and the overall success of the programs.

Many of the nation's transition programs for adult learners are GED®-to-college bridge programs, whose participants do not have either a state high school equivalency certificate (e.g., GED®) or a high school degree. These programs seek to prepare students to pass a high school equivalency assessment and, at the same time, prepare them to matriculate successfully in college. In contrast, the Texas Intensive College Readiness Programs for Adult Education Students (IP-AES) targeted adult learners who had already obtained a high school equivalency or degree but had not reached college readiness levels in reading, math, and writing. Despite this difference, the programs had many similarities, including the goal to achieve college and career readiness for participants. In addition, many of the program components are similar for both GED® bridge programs and IP-AES. They will be considered together in this review under the rubric of adult education-to-postsecondary transition programs (or adult transition programs).

Components of College Readiness Transition Programs

Adult education-to-postsecondary transition programs typically have the following eight components and characteristics: 1) managed enrollment and accelerated instruction, 2) college readiness curricula, 3) student-directed pedagogy, 4) career guidance and preparation activities, 5) college knowledge instruction, 6) learning framework instruction, 7) enrichment activities (e.g., tutoring and academic advising), and 8) connections to higher education institutions. Below are brief descriptions of each component and any empirical evidence that supports their effectiveness in adult transition programs. Later sections of the Guide will describe these components and methods of implementation in much greater detail.

Managed Enrollment and Accelerated Instruction

Unlike many adult education programs, which allow continuous open entry into classes, adult transition programs typically operate under a closed-enrollment system, whereby students must enter and exit the program during specified time periods. This policy allows instructors to present sequenced lessons of a set curriculum to students. It also promotes the formation of student cohort groups, which often leads to strong participant bonding, with students using each other as resources both inside and outside the classroom. Research from regular college environments shows increased student persistence and academic performance for such models. [2]

[1] Rutschow and Crary-Ross (2014).
[2] Engstrom and Tinto (2008); Tinto (1997).

Adult transition programs also tend to have an accelerated and shorter (often 10 weeks or fewer) instructional schedule than traditional adult education programs, which can occur in semester-based units. Research indicates that longer adult education programs can lead to higher dropout rates.[3] However, little is known about the length of instructional time needed to affect specified gains in achievement in different disciplines for adult learners at varying skill levels.[4] Therefore, more research is needed to determine the optimal number of student contact hours for each subject to both enhance program retention *and* impact achievement.

College Readiness Curricula

Unlike the K–12 standards-based curricula, the content in many adult education and literacy programs can be anomalous, varying by instructor to instructor. In addition, some programs have based their instruction on test preparation materials—an unsound educational practice.[5] Many adult college readiness transition programs, however, have recently based their curricula on a set of standards that identify the knowledge and skills graduates of the program need to know to be successful in college or a career.[6] Programs in states that have adopted the Common Core State Standards for college readiness often align their curricula to these standards. However, since these standards are relatively new (released in 2010), the research on the use of the standards in adult transition programs is ongoing, with the results still forthcoming.

In 2008, Texas public school teachers and college faculty worked together to develop the state's own College and Career Readiness Standards (Texas CCRS) that apply both to current high school graduates and to adult learners who wish to attend college.[7] The Texas IP-AES programs base their curricula on these standards, and a research study showed that when adult education instructors of IP-AES programs participated in professional development training designed to enhance their understanding of the Texas CCRS standards, these instructors changed their view of what college readiness should look like in their classes, including what student learning outcomes should be to reflect the standards.[8]

Adult education faculty of IP-AES programs not only use the standards for English/language arts and mathematics, but they also refer to the cross-disciplinary component of the Texas CCRS. These standards include problem solving, reasoning, intellectual curiosity, and use of data and technology, as well as reading, writing, and researching across the curriculum. Cross-disciplinary standards are considered critically important for establishing college readiness, much in the same way K–12 educators view the importance of the four Cs: creativity, critical thinking, communication, and collaboration.[9]

Student-Directed Pedagogy

One way to foster these kinds of cross-disciplinary skills is to utilize student-directed instruction. While many adult education classes rely on traditional lecture-dominated pedagogy, instructors in adult transition programs are more likely to use a variety of instructional methods,

[3] Comings, Parella, and Soricone (1999).
[4] Rutschow and Crary-Ross (2014).
[5] Beder and Medina (2001).
[6] Rutschow and Crary-Ross (2014).
[7] Texas Higher Education Coordinating Board and Texas Education Agency (2009).
[8] Martinez and Payne (2011).
[9] Texas Higher Education Coordinating Board and Texas Education Agency (2009).

including those that actively engage the student in the learning process. Examples of such instruction include group learning, peer review, project-based learning, research assignments, and portfolio development. Empirical evidence suggests that student-directed instruction better prepares students for postsecondary success than lecture-only teaching.[10]

Career Guidance and Preparation

Many adult education-to-postsecondary transition programs provide guidance to students in developing possible career choices. Typical career training activities include group presentations and one-on-one career counseling. However, some adult transition programs use "contextualized curricula" in which instructional materials in reading, writing, and mathematics are presented within the context of specific careers in fields such as business or healthcare. This approach is thought to provide more curricular relevance for the learner, and some research suggests that contextualized instruction produces greater student engagement in the learning process and results in increasing the rate of students entering and succeeding in college.[11] Yet, contextualized adult education bridge programs presuppose that students already have a strong desire to enter a particular career. To date, the Texas IP-AES programs have chosen not to use this approach.

College Knowledge

The literature shows that the most promising adult transition programs provide supporting information to students about their entry into college.[12] These programs often deliver this information through either seminars or "college knowledge" or "college success" classes, sometimes supplemented by one-on-one sessions with an adviser or transition specialist. College knowledge seminars typically help students complete their college application and financial aid forms. In addition, college knowledge classes assist students in selecting coursework and a major and expose students to the support resources that will be available to them in college, such as tutoring, advising, financial aid services, library resources, computer labs, math and writing centers, psychological and social services, and career counseling.

Learning Framework

Evidence also supports introducing students in adult transition programs to learning framework models and study skills techniques. Learning framework teaches students learning theory and how models of learning translate into effective study strategies for college success. Students learn about motivation, goal setting, time management, and other traditional study methods, such as note-taking, test preparation, and test-taking—all within the context of learning models and applying new information. Many of the cross-disciplinary skills noted above also are addressed in learning framework instruction, such as developing higher-level cognitive skills (e.g., critical thinking and understanding conceptual relationships across disciplines). In addition, enhancing computer and technology skills can be part of learning framework. Many adults entering higher education institutions have never been taught these kinds of learning and study skills, which is why their inclusion in transition programs is important. Like college knowledge information, learning framework often is delivered through seminars or classes (sometimes via combined college knowledge/learning framework classes) and through one-on-one sessions. In addition, instructors of content area courses in English and math often integrate study strategies in their classes as these skills become relevant. Empirical support for learning framework is

[10] Beder and Medina (2001); Rutschow and Crary-Ross (2014).
[11] Martin and Broadus (2013).
[12] Engle and Tinto (2008); Martin and Broadus (2013).

prevalent for both stand-alone classes and by integration into regular course content (e.g., through Supplemental Instruction models).[13]

Enrichment Activities

Activities such as tutoring (optional or mandatory), mentoring (informal or pre-arranged), and academic advising (group or individual) are common enrichment components of adult transition programs. Tutoring, which offers opportunities for students to address individual content difficulties, is sometimes provided by the instructors at designated times or provided by college students or community college staff. Administrators and instructors of an IP-AES program often perform mentoring on an ad hoc basis, but mentoring can be built into the program using college students or college faculty/staff assigned to specific students. Academic advisers from the college and/or IP-AES administrators conduct advising, often at the end of the program. Advisers can help students with college enrollment and with course selection based on student interest and test scores. While the literature on the efficacy of these activities in adult transition programs is limited to anecdotal information, reports on these endeavors are positive.[14]

Connection to Postsecondary Education

Many adult transition programs are located on a community college campus, which exposes students to a postsecondary environment. This exposure can ease the students' eventual transition to college by helping them become more familiar and comfortable in this setting. Often, these students have many of the same privileges (e.g., access to libraries, computer labs, etc.) as regularly enrolled students. Off-campus programs often have college tours and scheduled activities on the college campus. Again, the evidence for the value of this connection to the college campus is anecdotal but positive.[15]

Overall Success of Adult Transition Programs

While determining how much any particular component of an adult education-to-postsecondary transition program contributes to student success is difficult, a few rigorous studies examined holistically the benefits of these programs. For example, LaGuardia Community College used a random assignment design to compare the effectiveness of its GED® Bridge-to-Business and Health Careers program to its traditional GED® courses for several outcome measures. The study found that 53 percent of bridge students earned a GED® certificate compared to 22 percent of the students in the traditional program. Furthermore, 24 percent of the bridge students matriculated into college versus 7 percent for those in the traditional program.[16] Note this was a GED®-to-college bridge program for students seeking both a GED® and entrance into college, and it was a program using a specific contextualized curriculum; therefore, these results cannot be generalized to other types of adult transition programs. Also, there is a lack of similar studies that use comparison groups for statistical controls.

There are, however, studies for adult transition programs that report statistically significant pre- to post-program assessment gains in academic achievement outcomes. The Texas IP-AES is one such program. Unlike most GED®-to-college bridge programs, the IP-AES

[13] Weinstein, Acee, and Jung (2011); Kenney and Kallison (1994).
[14] Rutschow and Crary-Ross (2014); Martin and Broadus (2013); Conversations with site managers of the Texas IP-AES programs.
[15] Rutschow and Crary-Ross (2014); Conversations with site managers of the Texas IP-AES programs.
[16] Martin and Broadus (2013).

programs accept adults who hold high school diplomas or certificates of high school equivalency but whose pre-program test scores in reading, writing, and mathematic indicate they are unprepared for college-level coursework in many subjects. (See the previous section for all IP-AES program components.)

The 2012-13 IP-AES program had 10 participating institutions/organizations. A total of 522 students enrolled in the 10 IP-AES sites, and 444 students (85 percent) completed the program. Over half (52 percent) of the participants were Hispanic, and despite a large number of first generation students in the program, 92 percent of participants indicated they planned to finish a college degree. All programs conducted a pre/post student achievement assessment using the Texas Higher Education Assessment (THEA), which was a state-sanctioned college readiness exam evaluating students in reading, writing, and mathematics. Of the 30 pairs of pre- and posttests administered (three subject areas across each of the 10 sites), 13 resulted in statistically significant increases, 9 of which were in mathematics.[17]

Another pre-/post-outcome assessment used was the Learning and Study Strategies Inventory (LASSI)—a 10-category evaluation of student awareness and use of learning and study strategies needed for college. Of the 100 pairs of pre- and posttests scores (10 learning categories each at 10 sites), 69 resulted in statistically significant increases. All but two programs had at least seven categories showing significant gains.[18]

The study also tracked the college matriculation rates of IP-AES graduates in two previous years, compared to matriculation rates of public high school graduates in Texas for the same years. Of the 2010-11 IP-AES graduates tracked (493 students), 44 percent attended college (in Texas public or private community or technical colleges or universities) the following fall semester, compared to a 53 percent rate for Texas students who enrolled in college directly from high school. A total of 48 percent of the 2011-12 IP-AES graduates (430) were enrolled in college the following fall semester, compared to 52 percent of high school students. While the matriculation rates for IP-AES graduates (whose average age was 31) were lower than public high school graduates, the IP-AES percentages compare quite favorably to the approximately 13 percent matriculation rate for GED® graduates. In addition, IP-AES graduates had a higher one-year persistence rate than did first-time community college students.[19]

Conclusion

Although the research for adult transition programs is limited, there is enough evidence to indicate this approach holds promise for promoting a successful transition to college for this population of adult learners. However, continuing to gather empirical evidence on the effectiveness of transition programs to enhance the college readiness skills of adult learners is critical. Such research should track post-program student success, including college matriculation rates, grades in entry-level college courses, overall college GPA, and retention and graduation rates.

[17] Kallison (2013).
[18] Kallison (2013).
[19] Texas Higher Education Coordinating Board (2014).

References for Section 2

Beder, H., & Medina P. (2001). *Classroom dynamics in adult literacy education* (NCSALL Reports No. 18). Cambridge, MA: National Center for the Study of Adult Learning and Literacy, Harvard Graduate School of Education.

Comings, J. P., Parrella, A., & Soricone, L. (1999). *Persistence among adult basic education students in pre-GED® classes* (NCSALL Reports No. 12). Cambridge, MA: National Center for the Study of Adult Learning and Literacy, Harvard Graduate School of Education. (ERIC No. ED 437579)

Engle, J., & Tinto, V. (2008). *Moving beyond access: College success for low-income, first-generation students*. Washington DC: The Pell Institute for the Study of Opportunity in Higher Education. (ERIC No. ED 504448)

Engstrom, C. M., & Tinto, V. (2008). Learning better together: The impact of learning communities on the persistence of low-income students. *Opportunity Matters*, 1(1), 5-21.

vKallison, J. (2013). *Final evaluation report: 2012-13 intensive college readiness programs for adult education students*. Austin TX: Texas Higher Education Coordinating Board.

Kenney, P.A., & Kallison J. M. (1994). Research studies on the effectiveness of supplemental instruction in mathematics. In D. Martin & D. Arendale (Eds.), *Supplemental instruction: Increasing achievement and retention: New directions for teaching and learning, no. 60* (pp. 75-82). San Francisco, CA: Jossey-Bass.

Martin, V., & Broadus, J. (2013). *Enhancing GED® instruction to prepare students for college and careers: Early success in LaGuardia Community College's Bridge to Health and Business Program* (Policy Brief). New York: MDRC.

Martinez, M. H., & Payne, E. M. (2011). *Literature review AE to postsecondary transition: Standards-Based pilot professional development*. Austin TX: Texas Higher Education Coordinating Board.

Rutschow, E. Z., & Crary-Ross, S. (2014). *Beyond the GED®: Promising models for moving high school dropouts to college*. New York: MDRC.

Texas Higher Education Coordinating Board & Texas Education Agency (2009). *Texas College and Career Readiness Standards*. Austin, TX: Author. Website: www.thecb.state.tx.us/collegereadiness/crs.pdf.

Texas Higher Education and Coordinating Board (2014). *Accelerating postsecondary transition and success for students in adult education and literacy programs: A statewide coordinated action plan FY 2014-16*. Austin, TX: Author.

Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 25(2), 2-8.

Weinstein, C. E., Acee, T. W., & Jung, J. (2011) Self-regulation and learning strategies. *New Directions for Teaching and Learning*, 126, 45-53.

Section 3: Administrative Structure

The administrative structures of IP-AES programs vary greatly, as services for adult learners in Texas fall under various educational providers. Some community and technical colleges have adult education divisions, which may administer intensive programs under their organizational umbrellas. Other entities that might offer adult education programing in the state are public school districts, regional service centers (funded largely by the state and charged with assisting public school districts), nonprofit literacy councils, and other community or faith based organizations. Regardless of where the adult education program is housed, providers always partner with an area community college. One program built its partnerships with an independent school district, regional service center, and a community college.

Community College Involvement

The one commonality among organizational structures of IP-AES programs is that a community college either administers the program or is a partner with a federally supported adult education and literacy program funded under the Texas Workforce Commission (TWC). Community college involvement is critical for these programs, because, with some exceptions, graduates of IP-AES programs who continue their education do so at community colleges.

For IP-AES programs that take place on the community college campus, students not only learn about the college experience in their college knowledge seminars or classes, but they begin to navigate the campus itself and start to take advantage of campus resources they learn about in class. Once the IP-AES program concludes, this familiarity facilitates the transition process and increases the comfort level for graduates who continue with postsecondary education.

Some adult education centers that partner with a community college also locate the IP-AES program on the college campus, even though some administrative functions take place at another location. Clearly, all the advantages mentioned above are applicable to students in the program. But those programs that partner with a community college and locate the program off-campus still provide opportunities for students to be on the college campus for selected activities. For example, these programs typically have tours of the community college that allow students to visit such locations as the library, advising center, financial aid office, admissions office, writing and math centers, computer lab, tutoring center, campus bookstore, and parking and ID center. One IP-AES program is located at an adult education center on Monday through Thursday, but its Friday schedule, which includes the college knowledge class, takes place on the partner community college campus. This program also uses this opportunity to arrange for students to sit in on a regular community college class one time during the session.

Site managers of programs that take place at locations other than community colleges have identified some advantages of this arrangement. Their program environments, which are in small physical areas, provide helpful transitions to the much larger community college campus. Site managers suggest that the smaller environment is less intimidating for students who enter the program less than fully confident of their ability to succeed in postsecondary education. Once students are successful in this smaller environment, they then feel ready to traverse the larger borders and system of the community college. This model is similar to the model of ninth-grade centers that are used to transition middle school students into high school, so this rationale for housing IP-AES programs off the college campus has merit. However, the preferred model (of this Guide) is to offer IP-AES programs on the community college campus for the reasons and advantages noted. For those programs that cannot negotiate such an agreement with the college,

this Guide strongly recommends their IP-AES administrators arrange as many selected activities on the community college campus as possible.

Whether or not IP-AES programs are located on the community college campus or an alternative site, program administers agree that the role of the community college is critical to the long-term success of their students. Community colleges that house IP-AES programs on campus typically provide college IDs to these students, who can then have access to campus resources. Other "in-kind" contributions to the program often include providing classroom space, student parking, pre- and post-program testing, post-program tracking of college enrollment, and participation of some staff in the college knowledge seminars or classes—often representatives from financial aid, the career center, and advising. In fact, at more than one program, the person who teaches a similar "college orientation" class during regular semesters at the college to first-year students also teaches the college knowledge class for IP-AES students (although IP-AES monies usually pay for this service). Further, in many programs on community college campuses, advisers serve the IP-AES population during and after the program.

Even for an IP-AES program that is at an off-campus location, the partner community college often furnishes student IDs for IP-AES students and provides some of the above in-kind contributions, typically testing, tracking, and advising.

Administrative Functions and Responsibilities

Regardless of the location of the IP-AES, administrative functions must be performed to operate the program. These functions and responsibilities include 1) marketing and recruiting, 2) interviewing and selecting applicants, 3) engaging and meeting with stakeholders, including external community partners and internal groups such as the developmental education department, college admission's office, and financial aid office, 4) hiring instructors and other personnel, 5) facilitating curriculum development, 6) providing staff development and conducting classroom observation and instructor feedback, 7) scheduling and securing classroom and lab space, 8) arranging student orientation and closing ceremonies, 9) purchasing texts and other material, 10) administering pre- and post-program testing, 11) collecting data and conducting formative and summative evaluations, 12) arranging enrichment activities such as tutoring, career and academic advising, and mentoring, 13) maintaining the budget, and 14) structuring post-program student tracking and follow-up activities.

At the initial design and implementation stage, an IP-AES program is labor intensive, requiring significant staff time to build the model and establish it on a campus or center. However, after the initial startup year and building from lessons learned in the first year, the program is less labor intensive during its second and subsequent years as it becomes better known. The next section in the Guide will identify key personnel needed to perform all the duties involved in an IP-AES program.

IP-AES Budgets and Funding Options

The costs of operating Texas IP-AES programs (at least during the programs' grant-funded first four years) may not be reflective of others starting similar programs. Primarily, the grant-funded Texas IP-AES programs were completely free to students. While administrators believe this is critical to soliciting program participation, cost-free programs are not always the norm for adult education transition projects. On the other hand, IP-AES programs realize cost savings that other adult education programs may not enjoy. The in-kind contributions of community colleges noted above are examples of such savings. Furthermore, the instructors for

IP-AES programs are typically part-time employees, and they sometimes provide tutoring as part of their job responsibilities. Given these factors, the costs of IP-AES programs can vary significantly based on the in-kind contributions, classification of personnel, and the kinds of enrichment services provided. Below is an example of an annual IP-AES budget that assumes the following scenario:

- There are three cohorts per year with each cohort participating in a 10-week program.
- Each cohort has 15 to 20 students with a total of 50 students.
- There are two administrators, both with other college/adult education responsibilities besides IP-AES; there is one support staff, who also has other responsibilities. Budgeted salaries for these full-time staff are proportional to the indicated percentage of time they are assigned to the IP-AES program and include benefits.
- There are three instructors, all of whom are part-time employees.
- The host community college provides in-kind contributions for the program including classroom and lab space, tutoring and advising services, pre-/post-testing, and post-program student tracking.

IP-AES One-Year Program – Sample Budget

Item	Purpose and Explanation	Total
Site Manager/Director	Salary for 15% time on program (including benefits)	$12,000
Assistant Site Manager/ Transition Specialist	Salary for 50% time on program (including benefits)	$27,000
Instructional Staff	Salaries for: English/language arts: 50 contact hours + prep per cohort Mathematics: 50 contact hours + prep per cohort College Knowledge/Learning Framework: 20 contact hours + prep per cohort	 $7,500 $7,500 $3,000
Support Staff	Salary for 25% time on program (including benefits)	$7,000
Professional Fees	Staff development and travel	$3,000
Materials	Texts and other instructional materials Supplies	$8,000 $2,500
Advertising and Marketing	Flyers and placing ads in newspapers and on radio	$2,500
TOTAL		**$80,000**

This is a sample budget and is not meant to be prescriptive. The presented scenario and budget supports participants at $1,600 per student. This figure can fluctuate based on the variables identified above, particularly the amount and type of in-kind contributions provided by the college. Further, program costs can increase if participants receive completion incentive rewards, which are awards (e.g., college tuition rebates) to students for 1) good attendance, 2) completion of all program requirements, and 3) post-program college enrollment. However,

these awards (if offered) are best provided by an outside benefactor or by the college as in-kind contributions. (See Section 6 on Program Structure for more information on this topic.)

Conclusion

While the administrative structures of IP-AES programs implemented by adult education providers at colleges and adult education centers can be pliable to accommodate funding changes that affect budgets and personnel assignment, the fundamental administrative functions and responsibilities remain and must be accounted for in order to manage and operate a viable program.

Section 4: Program Personnel

It takes several staff members to develop and administer an IP-AES program. Some personnel are volunteer stakeholders from the community; some are from public or higher education performing in-kind services for the program; and others are paid staff with major responsibilities dedicated to the IP-AES program. This section identifies the personnel who are commonly associated with Texas intensive college readiness programs.

Community Stakeholders

Steering or Advisory Committee

A steering or advisory committee is a group of community-wide stakeholders who have a commitment to the success of adult education programming, an understanding of the need for improved college readiness and participation of underprepared adult learners, and a responsibility for supporting the workforce needs of both local and state economies. Along with IP-AES staff, this group collaborates to offer "broad direction" for the program. Specifically, the group 1) offers programming ideas for the project, 2) advocates for the program, 3) communicates the benefits of the program to the larger community, and 4) refers potential applicants to the program. Steering committee representatives may be from any of the following:

- Area or regional adult education and literacy provider (federal program)
- Local workforce solutions center (Texas) or area workforce board
- Business or industry
- Local college or university (e.g. staff or faculty)
- Local public school (e.g. superintendent or designee)
- Head Start program (e.g. staff or board member)
- Community or faith-based organization that addresses the needs of at-risk populations including literacy councils and other nonprofits
- Chamber of Commerce
- Criminal justice system

A steering committee can be a standing committee that oversees other adult education programs, or it can be specific to IP-AES. Regardless of its classification, a steering committee is often much more active and involved with the IP-AES program during the initial development stages of the program, when it serves in a planning role; the different perspectives of the committee members can enhance the planning process. Once the program is fully operational for several years, IP-AES staff keep the steering committee informed of participation and success metrics and other relevant information about the program. The steering committee maintains its role as an advocate for the program, and its members continue to refer students to the program.

Community Partners

Community partners are individuals and organizations that have a mutual interest in and responsibility for adult education, at-risk populations, and workforce needs. Such partnerships with IP-AES programs draw from some of the same organizations noted above. However, the role of community partners is usually more limited than that of a steering committee. Rather than having a planning function, community partners engage in cross-referrals to meet the

needs of its clientele, and participants keep each other informed about relevant events sponsored by their organizations. Some IP-AES programs have both steering committees and community partners, while other programs have just one of the two.

Higher Education Stakeholders and Partners

An IP-AES program, whether organized by an adult education provider housed at a local community college or in a community adult education center that partners with a local college, should involve members from many parts of the higher education community, especially during initial planning. Community college partners can include

- Division of Academic Student Success, including developmental education administrators and instructors
- Student Support Services, including academic advisers, career counselors, and learning center staff
- Academic and Workforce Deans
- Math and English chairs or faculty members
- Office of Admissions
- Office of Financial Aid
- Registrar's Office
- Testing Services
- Continuing Education

Engaging with developmental education administrators, staff, and faculty is particularly important for IP-AES administrators and faculty because both groups of educators share a common goal of preparing students for college-level work. Exchanging ideas and approaches for addressing the needs of underprepared students should be mutually beneficial to both staffs. Outreach to the developmental education department, academic advising, and student support is especially helpful if the IP-AES program is new to the community college campus, as these college programs and services can provide opportunities for adult education students to integrate into the campus prior to full admission. Many IP-AES programs form an internal planning committee with members of the above groups when first starting the program. The planning ideas offered by this committee are much more specific and detailed than the more general guidelines and suggestions provided by the steering committee.

Input from math and English faculty is especially helpful because these individuals are best positioned to know what skills students need to be successful in entry-level college courses. Furthermore, staff from admissions, financial aid, and the career center, as well as academic advisers, are likely to be directly involved in IP-AES program delivery; therefore, representatives from these offices are needed during the planning process. An IP-AES program simply cannot operate in a vacuum, divorced from the rest of the campus. Rather, it must become part of the framework of all the departments and offices mentioned above for the program to best serve its students. The goal of successful IP-AES programs is to produce graduates who transition to participating college at or near college readiness levels.

IP-AES Staff

Administration

Grant requirements mandated that IP-AES programs have a site manager or director who had primary administrative responsibility for the program. At some IP-AES programs that ran four cohorts a year, this person was a full-time employee with his or her responsibilities devoted to the program. In other programs, the site manger might have devoted as little as 10 percent of a full-time position to the IP-AES program, while attending to other responsibilities in adult education programming. In some programs, the IP-AES director was also the Director of Adult Education and Literacy at a community college or adult education center. In such cases, the services of the site manager were in-kind or paid out of IP-AES funding in proportion to the percentage of time devoted to the program.

The majority of these grant funded intensive programs had a second administrator, particularly if the site manager spent only 5 to 15 hours a week assigned to IP-AES. This second individual, typically called Coordinator or Transition Specialist, was full or part time under IP-AES funding. As noted in Section 3 on Administrative Structure, the IP-AES site manager and coordinator (if applicable) have the following responsibilities for the program:

- Marketing
- Interviewing and selecting applicants
- Engaging and meeting with stakeholders, including external community partners and internal groups such as developmental education departments
- Hiring instructors and other personnel
- Facilitating curriculum development
- Providing staff development and conducting classroom observation and instructor feedback
- Scheduling and securing classroom and lab space
- Arranging student orientation and closing ceremonies
- Purchasing texts and other material
- Organizing the administration of pre- and post-program testing
- Collecting data and conducting formative and summative evaluations
- Arranging enrichment activities such as tutoring, career and academic advising, and mentoring
- Maintaining the budget
- Structuring post-program student tracking and follow-up activities

Given the complexity and volume of the above responsibilities, allocating 40 hours per week (from one or two persons) is likely needed for IP-AES programs to address these administrative duties. In addition, some site managers or coordinators work directly with students in the role of a transition specialist. For example, one coordinator in an established program meets with students on a one-to-one basis to determine if a student is having any personal or academic issues that are affecting his or her performance in the program and then attempts to address any such issue. Another transition adviser meets individually with students to give a “values/goal inventory” and to explore career opportunities that are consistent with a student’s responses. (This process complements career exploration activities provided in college knowledge classes, as noted below and explained in Section 10). And at one program, an administrator sits in on each student’s end-of-program registration session with a college adviser to assist with the advising process for the student. Finally, many administrators follow up (via

email or phone calls) with students after they enroll in college to determine their progress and success in their first semester of college.

Administrative Support Staff

All grant funded IP-AES programs had one administrative support person who worked part-time for the program. The duties of support staff vary from program to program but often include these tasks: ordering texts and materials, placing ads, securing classroom and labs, keeping attendance records, submitting payroll forms, and entering and tracking budget expenditures. Most commonly, the support staff person holds a shared position with IP-AES and another program/department, either the federally supported adult education program or the continuing education department at the college.

Instructors

The Texas IP-AES programs typically employ three instructors to teach the three subject areas of the program: 1) English/language arts, 2) mathematics, and 3) college knowledge/learning framework. In a few cases, programs hire two instructors for mathematics when the class is split into “higher” and “lower” levels. Instructors for English and math are often current or retired faculty teaching in developmental education or academic programs, high school equivalency programs, or public schools. In addition to teaching in the program, instructors often provide tutoring to their students before or after regular program hours.

Instructors for the college knowledge/learning framework course are often college faculty from Educational Psychology or Human Development or staff members from the Learning/ Success Center who teach a similar semester-long version the course to regularly admitted students. In some programs, the coordinator doubles as the instructor of the college knowledge/learning framework course.

Enrichment Staff

IP-AES programs include mandatory or optional supplemental activities, including tutoring, academic advising, career counseling, and mentoring. Some instructors provide tutoring for their students outside class hours. In addition, for programs on community college campuses, tutoring services are already in place (at tutoring centers or labs) for regularly enrolled students, and this service is typically available to IP-AES students. College faculty, staff, or students work in the tutoring center, and the college provides tutoring to IP-AES students as an in-kind service.

Community colleges also provide academic advising to IP-AES students on an in-kind basis. Advisers usually work with program graduates at the end of the program to help them register for college classes. Advisers also speak at college knowledge classes and then work individually with students, as needed, during the program. Similarly, career counselors talk to college knowledge classes and offer the services of the career center to interested IP-AES students.

IP-AES administrators consider mentoring to be the responsibility of all staff associated with the program. This kind of mentoring is provided mostly on an informal and ad-hoc basis. Volunteers from the community, often from area businesses, also provide mentoring to students, and some programs hire student (peer) mentors to work specifically with IP-AES students to provide assistance and offer advice. These students are usually from the community college and

include former IP-AES graduates. (See Section 10 on Enrichment and Support Activities for more details on enrichment staff and their responsibilities).

Conclusion

Clearly, implementing a successful IP-AES program takes many people, and all these individuals—from those in high level leadership positions to service delivery staff—need to be committed and passionate about ensuring the successful transition of adult learners into and through higher education. Site managers also note that IP-AES students, many of whom had disrupted public school experiences, are often anxious about re-entering an educational environment. They often have distrustful attitudes about the educational system generally and about their own ability to succeed in such a system in particular. Therefore, instructors must be particularly supportive of their students and recognize the challenges that these students are facing.

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Section 5: Program Goals

Purpose of Goals

Any educational program should have a set of goals that unambiguously identifies what outcomes are desired and expected as a result of the educational endeavor. Clearly stated outcome-based goals are particularly important to articulate in IP-AES programs because administrators and staff need to know if they have been successful in accomplishing their purposes. In addition, students need to know exactly what is expected of them. Once goals are established, each activity of the program should help accomplish one or more of the stated goals of the program.

Suggested Practices

Goals for College Readiness

The purpose of an intensive college readiness program should be to enhance the multiple aspects of college readiness of its participants. Therefore, IP-AES programs should include goals that focus on student outcomes related to the components of college readiness for adults with high school diplomas, or the equivalent, who are underprepared for college coursework. The most important college readiness areas are

1. Content skills, particularly in the core subjects of reading, writing, and mathematics
2. Learning and study skills needed for college success
3. College knowledge and success skills

Program goals at least should address these aspects of college readiness. One example of a content-specific goal of a Texas implemented program might be, “80 percent or more of program completers will meet the college-level benchmark for mathematics on the TSIA post-program exam.”

Affective Goals

Since the literature suggests student attitudes can impact success in college, incorporating program goals that address outcomes in affective areas is often appropriate. A goal related to a student’s confidence level in achieving success in college is one example. While goals related to assessing affective domains may be more difficult to precisely measure than content-related cognitive goals, affective goals can be significant indicators of program success. One such goal might be, “90 percent or more of program completers will indicate ‘strongly agree’ or ‘agree’ to confidence-related questions on the post-program survey.”

Administrative Goals

While site managers should target specified student outcomes, they also can include outcome-based administrative goals for the program. One such goal could be, “the program will admit 100 students who meet entrance criteria to the program over the four cohorts of the fall and spring semesters.”

Short-Term and Long-Term Goals

Typically, IP-AES goals include both short-term and long-term outcomes. Ultimately, stakeholders desire graduates of IP-AES programs to enroll and become successful in college. Therefore, a long-term goal for "program completers to earn a college credential" is an important and appropriate goal. However, once a student completes and leaves the program, it is more difficult to associate long-term student outcomes directly to the intervention of the IP-AES program because many other factors continue to play a role in the students' success (or lack thereof). Therefore, program goals should also include immediate outcomes—reflecting short-term goals—that can be measured no later than the conclusion of the program.

Characteristics of Goals

Whether goals are cognitive, affective, administrative, short-term, or long-term, they should include certain characteristics. First, goals should be stated in terms of specified *outcomes*. All the previous examples of goals have been outcomes—mostly student outcomes. The statement, "the program will offer two sections—high level and lower level—of mathematics" is not an outcome and is not a goal; this statement describes an activity or process that supports a goal. These kinds of statements can be useful to associate with certain goals, but they are not metrics that demonstrate program success.

Second, goals should be measurable, and some goals require administering a particular assessment instrument to determine the measureable success of a particular goal. Site managers of Texas IP-AES programs currently use the Texas Success Initiative Assessment or TSIA to determine skill levels of program participants in reading, writing, and mathematics. Administered as a pre- and post-program instrument, managers use the TSIA to determine achievement gains for participants in these three content areas. Success criteria are also established for TSIA pre-/post-gains to determine success benchmarks for certain program goals. (See the goal matrix below for examples of success criteria with the TSIA.)

However, not all goals require the use of an assessment instrument. Observing student responses in class or reading student journal entries are other examples of data collection used in measuring and determining success of particular goals. While these techniques may not be as precise as using an instrument like the TSIA, they still can be valid measures of program success. To enhance the effectiveness of these methods, instructors and/or administrators should develop a protocol with classifications for student entries and responses.

Finally, goals should be realistic in terms of establishing their success criteria. While a site manager may desire for all program graduates to go on to, and graduate from college, this outcome would be very difficult to realize. Managers should set ambitious, but reasonable, goals and success criteria.

Characteristics of Goals:

1. Outcome-Based
2. Measurable
3. Linked with Success Criteria
4. Realistic

Goal Formats

A particularly useful format for organizing program goals is a goal matrix, which not only identifies program goals but also specifies other elements associated with each goal. These elements can include 1) outcome measures of the goal, 2) success criteria, and 3) the method of data collection needed. Moreover, the goals can be identified and grouped by short-term and long-term goals.

The following goal matrix is hypothetical, but it draws from several actual IP-AES goal documents. The acronyms in the matrix include

- CKC: College Knowledge Class. This class helps students navigate the college system and exposes them to support resources that will be available to them once they are in college.

- FAFSA: Free Application for Federal Student Aid. The completion of this document from the U.S. Department of Education is often the first step a college applicant takes in seeking financial assistance for college.

- LASSI: Learning and Study Strategies Inventory. The LASSI evaluates student awareness and use of learning and study strategies needed for college.

- TSIA Texas Success Initiative Assessment. The TSIA is an assessment instrument that evaluates student skill levels in several subjects including reading, writing, and mathematics. It is aligned with the Texas College and Career Readiness Standards, so the TSIA has benchmark cut scores that designate college readiness in each subject area.

Goal Matrices: Possible Column Categories:

1. Goal
2. Outcome Measure
3. Success Criteria
4. Data Collection Method
5. Major Actions to Achieve Goal
6. Stakeholders Affected
7. Person(s) Responsible for Goal
8. Timeline
9. Level of Importance
10. Results

Sample IP-AES Goal Matrix

Goal	Outcome Measure	Success Criteria	Data Collection Method
Students will improve their skills in the areas of reading, writing, and mathematics.	Scores on pre-/post-program TSIA exam	Pre-/post-mean achievement gains will be statistically significant in 2 of the 3 content areas.	Students will take the TSIA during orientation week and again the week after classes end.
Students will achieve college readiness in the areas of reading, writing, and mathematics.	Posttest scores on TSIA exam	1) Posttest means will reach or exceed the college readiness TSIA benchmark scores in at least 2 content areas. 2) 80% or more of students will reach the college readiness TSIA benchmark in at least 1 area, 65% in 2 areas, and 50% in all 3 areas.	Students will take the TSIA the week after classes end.
Students will increase their awareness and use of learning and study skills needed for college.	Scores on pre-/post-program LASSI exam	Pre-/post-mean score gains will be statistically significant in at least 7 of the 10 LASSI categories.	Students will take LASSI during orientation week and again the week after classes end.
Students will increase their knowledge about resources available to them in college.	Results of CKC assignments and class discussion	90% or higher of correct student responses	Grading CKC assignments and observation of responses in class discussion
Students will matriculate in college.	1) College application and FAFSA completion 2) College enrollment	1) 100% percent of students will fill out an application to college and, if applicable, a FAFSA form. 2) 80% percent or more of completers will enroll in college within 6 months of program completion.	1) CKC assignments will include filling out a college application and a FAFSA form. 2) Confirm with own Registrar and/or institutional research office at partnering college the # of IP-AES students enrolled.
Students will persist in college (long-term goal).	College enrollment	Of the IP-AES completers enrolled in college, 80 percent or more will persist through their first semester, and 70 percent will persist through their first year in college.	Confirm with own Registrar and/or institutional research office, the # of IP-AES students enrolled at institution.

Goal	Outcome Measure	Success Criteria	Data Collection Method
Students will be successful in college (long-term goal).	College grades and college credentials earned	1) 90% or more of IP-AES graduates enrolled in college will complete college-level coursework with a grade of C or better. 2) 70% or more will earn an associate degree within 3 years or a bachelor's degree within 6 years.	1) Confirm with own Registrar and/or institutional research office the # of IP-AES students completing non-developmental coursework with a C or better. 2) Confirm with Registrar and/or institutional research office the # of IP-AES students earning a college credential at institution.

This example is only illustrative and not definitive or exhaustive. Other goals and outcomes could have been added to the matrix, such as targeted enrollment numbers and program completion rates. Also, goal matrix columns can include 1) major activities to accomplish each goal, 2) stakeholders affected by each goal, 3) person(s) responsible for goal, 4) timeline for goal, 5) level of importance of goal, and 6) final results. (See Appendix C for another example of matrix-formatted goals from a Texas IP-AES program.)

IP-AES programs can use other goal formats than a matrix. A simple list of goals in text format can suffice as long as the goals are outcome-based and have the other previously mentioned characteristics, but a goal matrix (or other schematic format) allows administrators to present much more information to staff and stakeholders.

Sub-Goals and Objectives

Clearly, every component of the IP-AES program should contribute in meaningful ways to accomplishing one or more of the program goals. Therefore, those components often have their own set of sub-goals, which will be more specific than the major program goals. A workshop on career counseling might have a goal for each student to "identify three possible careers with the educational attainment needed for each career." Instructional objectives for content classes often have the highest level of specificity for student outcomes (e.g., "Students will be able to solve a simultaneous set of two linear equations with two unknowns by both the substitution and addition methods.") Regardless of the level of specificity of goals, sub-goals and objectives, they should be outcome-based, measurable, and realistic.

Conclusion

Program goals, whether in a matrix format or otherwise, should not be a static planning document. Each year administrators, stakeholders, and staff should revisit goals and success criteria and adjust them as program data and analysis dictate. Goals—particularly major program goals—also should be visible to all staff and students, as a constant reminder of all the desired and expected results of the program.

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Section 6: Program Structure

The intensive programs across the state vary in their daily and weekly schedules and in the activities that comprised the schedule. However, the intensive nature of the program does not vary with the programs compressing a minimum of 120 instructional contact hours within a 6- to 10-week time period. The following table shows a sample schedule of a 10-week IP-AES program. This section provides an overview of how different IP-AES programs structure their time and activities. More detailed components related to curricular issues, learning framework and college knowledge, enrichment activities, and program evaluation are found in later sections of this Guide.

Sample IP-AES Schedule

Week	Monday and Tuesday	Wednesday and Thursday	Friday
1	Orientation: 8 a.m.–12 p.m. Program Information, Student Expectations, Team Building, Administrative Forms	Orientation: 8 a.m.–12 p.m. College Application, Career Inventory, LASSI Pre-exam	TSIA Pre-exam: 8 a.m.–1 p.m.
2–9	Tutoring: 8 a.m.–8:45 a.m. Math: 8:45 a.m.–10:30 a.m. E/LA: 10:30 a.m.–12 p.m.	Tutoring: 8 a.m.–8:45 a.m. E/LA: 8:45 a.m.–10: 30 a.m. Math: 10:30 a.m.–12 p.m.	College Knowledge/ Learning Skills: 8 a.m.–10 a.m. Math/Writing Lab: 10 a.m.–12 p.m. Mentor/Adviser/ Counselor Meeting: 12 p.m.–1 p.m.
10	College Knowledge/ Learning Skills (including LASSI Post-exam): 8 a.m.–12 p.m.	Wed: TSIA Post-exam: 8 a.m.–1 p.m. Thur: Advising & Registration: 8 a.m.–12 p.m.	Awards and Closing Ceremony Lunch: 11 a.m.–1 p.m.

Total Time Allocation

Math: 52 class hours + ~ 8 lab hours = 60 hours
E/LA: 52 class hours + ~ 8 lab hours = 60 hours
College Knowledge/Learning Skills = 24 hours
Tutoring (optional/mandatory) = 24 hours
Mentor/Adviser/Counselor Meetings = 12 hours
Orientation and Closing Ceremony = 10 hours
Pre- and Post-Program TSIA Testing = 10 hours

Total in-program student time commitment, including all tutoring hours = 200 hours
Total in program student time commitment without any tutoring = 176 hours

The remaining parts of this section will consider the merits of deviations of the above program structure. In addition, the section will provide information about each program element.

Contact Hours

Hours of Operation

This sample schedule shows a 10-week IP-AES program offered 4 hours a day for 5 days a week. As noted, the total instructional hours for mathematics and English/language arts (integrated reading and writing) total 120 hours, while class time for college knowledge/learning framework is 24 hours. The Texas Higher Education Coordinating Board—the funding source for the first four years of IP-AES programs—required programs to offer a minimum of 100 instructional hours in math and English and 20 hours in college knowledge/learning framework. Some current IP-AES programs still follow only these baseline requirements, but other programs schedule as many as 190 instructional contact hours for their students.

Variations in hours per day and per week also exist. One program operates 3 hours a day for 4 days a week but has 10 full instructional weeks. Another IP-AES runs 6 hours per day for 5 days but only lasts 6 weeks. The site managers at all IP-AES programs try to balance incorporating enough contact-hour exposure to affect meaningful achievement gains against potential retention problems that are associated with longer traditional adult education programs.

Administrators also try to accommodate student work schedules and childcare needs; site managers indicate that an average of 70 percent of their students work. For that reason, some IP-AES programs are offered during evening hours. The above sample schedule could be shifted to a 5 p.m. to 9 p.m. evening schedule, with the likely exception of Friday. Regardless of the IP-AES time schedule, most students who work report that their employers are supportive of their participation in the program and provide flexible work schedules for the duration of the program. Some IP-AES programs facilitate this support from students' employers by sending them a letter explaining the purpose and value of the program. (See Appendix D for an example letter.)

No single, optimal schedule fits all programs and meets the needs of all participants. However, evidence suggests that a 120-instructional-contact-hour minimum is an important threshold to honor. An early IP-AES pilot, which consisted of 80 instructional hours, did not produce as many achievement gains as later programs that increased to the 120-hour minimum.

Instructional Allocation between Math and English

IP-AES programs should examine the "threshold" number of contact hours that students likely need to affect meaningful achievement gains in each subject area, given the typical academic profile of entering students in the program. Programs should also explore flexible schedules that allow some students to spend more time on subject areas or academic skill areas where they are weaker. Currently, IP-AES programs use scheduled lab times, outside work on online materials, and tutoring as three methods to address this issue. In addition, substituting supervised independent study (e.g., group/individual tutoring or assigned lab/outside work) in the place of a class may be helpful for some students. And if feasible, administrators might consider skill-specific cohorts (e.g. intensive math programs) for students who are college ready in one academic area but weak in another. Administrators should use pre-assessment scores on a diagnostic instrument to build a program plan for students that addresses or targets their weak skill areas. (See Pre- and Post-Program testing later in this section for more information.) As a pre-assessment, the Texas Success Initiative Assessment

(TSIA) provides a diagnostic profile that may be used to build a learning plan for a cohort of students in an intensive transition program.

Orientation

All IP-AES programs devote time at the beginning of their programs to student orientation, allocating anywhere from one day to four days. The following activities typically take place during IP-AES orientation.

Program Information and Student Expectations

During this part of the orientation, program administrators

1. Introduce themselves, the teachers, and other staff, and each person explains what role he or she plays in the program;
2. Explain the goals and purposes of the program;
3. Explain the advantages of earning a college credential;
4. Identify benchmark calendar dates, such as college registration and start of classes;
5. Explain the attendance and homework polices and discuss other student expectations;
6. Hand out the complete program schedule;
7. Identify all campus resources available to students;
8. Explain campus safety tips and services;
9. Provide information on childcare options;
10. Notify students about the purpose of pre- and post-testing and the date of the first test;
11. Provide instructions on receiving campus ID badges and parking permits; and
12. Explain program completion incentives and the criteria for receiving them.

Some IP-AES programs also incorporate a campus tour as part of program information. On these tours, students visit several offices on campus, including admissions, financial aid, tutoring and learning center, writing and math labs, career center, and the student center. (See Appendix E for an agenda of a first day IP-AES orientation session that addresses program information and student expectations.)

Former Student Panels

Orientation sessions can include discussion panels made up of former IP-AES graduates who are currently attending college or who have graduated with a credential. Former students reinforce the benefits of the program and share their personal stories of challenges and successes in pursuing a college credential. They also give advice about how to take advantage of the services that the IP-AES program offers. In addition, new students have an opportunity to ask questions of former students. Clearly, IP-AES graduates have considerable credibility with students coming into the program.

Administrative Forms

Orientation is also an opportunity for administrators to ask students to complete intake/enrollment forms. These forms ask students for 1) contact information, 2) demographic data (ethnicity, age, and gender), 3) employment status, 4) previous education (high school diploma or equivalent credential), 5) education attainment level of parents, and 6) primary language spoken at home. (See appendix F for an example of an IP-AES intake/enrollment form and Appendix G for student consent forms, if required by your institution.) Some IP-AES

programs also administer pre-program surveys to capture the students' expected plans for college and their confidence levels about succeeding at postsecondary institutions. Post-program surveys then document any gains on these measures.

Team Building

All IP-AES programs use a cohort model in which all the students take the same classes and participate in the same activities. With the exception of some one-to-one activities, such as meeting with an adviser or mentor, students go through the program together. Site managers universally advocate for this model for this population because students learn the value of having each other as resources both in and out of the classroom. They help each other with academics and with family issues and emergencies. The common goals of these students and their shared class experiences serve to create bonds among the students. The IP-AES program also facilitates this bonding, and many begin this process during orientation with various team-building exercises. As noted in Section 2, research supports the use of cohort models.

College Application

Some IP-AES programs have students complete a college application during orientation. The application may be to the community college administering or co-sponsoring the program, or the student may complete the common statewide application, called Apply Texas. IP-AES programs do so to send a message to students early in the program that site managers expect students to attend college after they complete IP-AES programs. Programs that defer the college application assignment to another time generally do so in the college knowledge course. Students usually complete that assignment early in that course, again to communicate the expected outcome of all IP-AES graduates.

Career Workshop

A career workshop is another program activity often conducted during orientation or during an early session of the college knowledge course. The rationale for "front-loading" this activity is to jumpstart students into thinking about a career they may wish to pursue. If a student becomes interested in a particular career, it can serve as additional motivation to complete the program. The workshop usually consists of a career counselor administering a career interest inventory, showing students how to interpret the results, and then informing students about campus resources they can utilize to pursue further information about a particular career. Often students sign up for an individual session with a career counselor, which takes place at a later time in the program. (See Section 10, Enrichment and Support Activities, for more information on career counseling.)

Pre- and Post-Program Testing

For evaluation purposes, another component of all IP-AES programs in 2010-2014 was the administration of both pre-program and post-program assessments that measured gains in student academic and noncognitive skills. The pre-assessments were given before any content or learning skill intervention had begun, and the post-assessments were given after the intervention (the intensive program) ended. Providing both academic and noncognitive skill assessments prior to the implementation of the intensive program will help faculty know where their students assess in targeted areas and can help with curricular planning, the integration of differentiated instruction, the development of student-specific lab or skills work, and the daily or weekly integration of study skills and learning strategies. The post-assessment instrument

should be the same as the pre-assessment to determine the skills gain students make going through the program.

For the academic assessment, the IPAES programs administer the Texas Success Initiative Assessment (TSIA) for the pre- and post-program instrument. The TSIA is aligned with the Texas College and Career Readiness Standards (Texas CCRS) and has college readiness benchmarks in reading, writing, and mathematics so that program administrators are able to determine how many of their students reach college readiness upon program completion (as measured by the TSIA). As a pre-assessment, the TSIA provides a detailed diagnostic profile that can help both students and faculty target specific skills for improvement. For the noncognitive assessment, the programs use the Learning and Study Strategies Inventory, or LASSI, which measures student awareness and use of learning and study strategies needed for college. As a pre-assessment, the LASSI can help a student recognize their personal ideas, habits, and approaches to studying and learning. Growth in a student's awareness of strategic learning and study skills should result in higher LASSI scores in a post-assessment. (See Section 8 on Curriculum Development and Section 11 on Learning Framework and College Knowledge for more information on using these instruments for diagnostic purposes, and see Section 14 on Program Evaluation for more information on these instruments for assessment purposes.)

Mathematics and English/Langue Arts Instruction

Classes

All IP-AES programs have classroom instruction in mathematics and English/language arts. Site managers indicate the ideal class sizes for these courses are 15 to 20 students. However, some instructors are comfortable with as many as 25 students, suggesting that the high maturity and motivation levels of these adult learners enable effective discourse and learning with this larger number. All IP-AES programs teach English/language arts as one class that integrates the subjects of both reading and writing. (See Section 8 on Curriculum Development to understand the rationale for integrating these two related subjects. Section 8 also includes information on aligning both the math and English curricula with the Texas CCRS standards and information on content topics for both courses. Also, see Section 9 on Pedagogy, which identifies different methodologies to use in teaching both mathematics and English/language arts.)

Labs

Many IP-AES programs have lab components for mathematics and reading/writing. The labs supplement class instruction and can serve several purposes. In mathematics, students often work on computer-based materials that both reinforce class content and provide additional practice problems (other than in the text) that are tailored to the skill level of each student. Computer-assisted instruction also allows students to review foundational mathematics concepts that are not addressed in detail in class (e.g., fractions and decimals) but which are needed for students to succeed in the IP-AES math curriculum. This is particularly helpful at the beginning of the program. In writing, students frequently use a writing lab to do research and to write assigned essays and papers. Reading/writing labs also contain software materials to reinforce topics taught in class, and instructors and tutors staff both math labs and reading/writing labs, so students can receive help on a one-to-one basis. The labs, located on the college campus, normally serve all students, including those in the intensive program.

Learning Framework and College Knowledge Instruction

As part of the THECB grant requirements, the funded IP-AES programs from 2010-2014 offered at least 20 hours of instruction in learning framework and college knowledge. In addition, programs often incorporated technology skills as part of the combined course or included technology as part of orientation. A few programs held separate seminars on the topics in all three areas at selected times during the program (sometimes in lieu of regular class time). (See Section 11 on Learning Framework and College Knowledge for detailed information on these three topics and how IP-AES programs incorporate them.)

Learning Framework

Learning framework for students refers to a method of teaching learning and study skills to college-going students. Typically, instruction begins with research and theory of learning and motivation followed by examples of study skills that are applications of the learning theory models. The skills and topics taught are ones students need to be successful at college-level work, which include test preparation, test-taking, note-taking, motivation and goal setting, and time management. Instructors teach students to engage in higher-level cognitive learning, similar to what they will experience in postsecondary education. Some programs provide this instruction fully integrated in the academic coursework, but learning framework is often introduced through separate classes held once a week, or as targeted workshops around themes or strategies. Even if the program offers separate classes for learning framework, the math and English instructors reinforce what students learn in the learning framework class, as it applies to math and English.

College Knowledge

College knowledge refers to skills students need to know to navigate the college system once enrolled (and even before) in a higher education institution. As adult learners who are not yet enrolled in a college and who have had disrupted schooling in their past, the IP-AES students are often anxious and uncertain about college culture and also unaware of the support resources available to them. Therefore, IP-AES programs introduce students to the systems that will support them once they are in college. Many IP-AES participants will be first-generation college students, so the college application process and procedures for obtaining financial aid can be especially intimidating to them. The college knowledge component of IP-AES programs addresses these issues.

Technology

Many adult learners in IP-AES programs have not been exposed to the technology tools and software commonly taught in today's K–12 schools. These IP-AES students may be unfamiliar with the use of desktop computers or with Microsoft Word, PowerPoint and Excel. IP-AES programs typically include instruction on the use of these software applications, as well as exposure to the web-based, course management system (e.g., Blackboard) that students will encounter in college.

Enrichment and Support Activities

IP-AES enrichment and support activities consist of tutoring, academic advising, career counseling, and mentoring. (See Section 10 on Enrichment and Support Activities for more information on these program components.)

Tutoring is an element of every IP-AES program. Often instructors tutor their own students, either before classes begin or after the regular day ends. Other tutoring opportunities for students often include services that are available to any student on the campus hosting the IP-AES program, such as tutoring centers or math and writing labs. Content specialists—students or instructors—typically staff these centers and labs. While tutoring is usually optional for students, some IP-AES programs impose mandatory tutoring for those students who are having difficulty mastering the material.

Admissions and academic advising is another component offered at all IP-AES programs. Enrollment or college admissions advisers work with students to help them understand what programs or fields of study are offered at the college that best fit the students' interests, prior educational and work experiences, academic and personal skill sets, and short-term and long-term goals. Traditionally, an adviser from the host community college speaks to the entire cohort at a college knowledge session, followed by one-on-one appointments with individual students. Advisers provide information about coursework needed for core requirements and for different majors. Then at the end of the program, students meet individually with one of these advisers to register for classes at the college. Building relationships with these college staff help with the transition of these students from an adult education program to a college program. In addition, as noted in Section 4, many site managers or coordinators work with students in the role of transition specialists and also provide admission and academic advising to students in coordination with the college advisers.

Career counseling is usually a front-loaded activity, which begins at orientation (see above) or an early session of a college knowledge class. While career counselors are normally college staff, some adult education programs with ties to regional employers invite both community and college leaders to talk with students about their experiences choosing a career path. One IP-AES program invites several industry and business leaders in their region to meet with students who are interested in pursuing a career relevant to that industry (e.g. health professions, manufacturing).

Informal mentoring occurs at all IP-AES programs, as students consult with administrators, instructors, and other staff about immediate concerns or long-term plans. However, some programs hire mentors (community college students—often former IP-AES graduates) who meet regularly with students. Another program invites college faculty and staff to volunteer as mentors to students by advertising the request in the college's employee newsletter. The result is consistently positive, as students in the program are assigned mentors who work in the field that the students are interested in pursuing.

Completion Incentives

While some IP-AES programs offer incentives (awards) for student to complete the program and enroll in college, programs vary in terms of completion criteria and type and amount of awards. Typical requirements to receive an award are 1) attending class with no more than three absences, 2) completing any required assessments and surveys, 3) completing all major assignments (e.g., essays and reports), 4) maintaining minimum homework and test

averages, and 5) enrolling in college. The most common award is providing college scholarship money or tuition rebates.

The impact of any of these incentive awards on recruitment, program completion, and college enrolment and success is largely unknown except for anecdotal evidence. During the evaluation of the program, students reported that the incentives were important to them, indicating tuition rebates were very helpful financially. However, it is advantageous for program budgetary reasons for an outside benefactor to provide these awards or for the college to offer financial awards as in-kind contributions. Several colleges noted that the incentive of college enrollment at the close of an 8-week program was the only motivation the students needed to succeed in the IP-AES program.

Post-Program Awards and Closing Ceremony

All IP-AES programs hold end-of-program awards and closing ceremonies open to both students and their families. These events celebrate the accomplishments of program completers and provide closure for the students who have worked as a cohort to move closer to the goal of college matriculation and success. Speakers, often high-ranking representatives from the host college (including college presidents), congratulate students and encourage them to continue their education. Student leaders, chosen by their cohorts to represent them during ceremonies, also typically provide remarks to their groups, as do program site managers. Site managers also hand out awards and completion certificates to the students. (See appendix H for an example of an IP-AES completion certificate.) These events are meaningful to students, and many commit to stay in touch with each other as they pursue their higher education goals.

Post-Program Services

Site managers and instructors of IP-AES programs follow up (via email or phone calls) with program graduates to inquire about their post-program activities. Some site managers also send out post-program electronic surveys to students to solicit their input on how the program might have better prepared them for postsecondary work. Furthermore, some programs host reunions for cohorts, solicit in-person feedback, and invite students back to participate in student panels during recruitment and orientation sessions. Program managers also indicated that when their budgets allow, they hire peer mentors to work with program graduates during their first semester of college work. These mentors are often former graduates of the IP-AES program.

Conclusion

Based on lessons learned from the programs implemented in Texas, there are certain activities that each college shared that resulted in the successful transition of better prepared students into higher education. The academic skills instruction was targeted to student need based on a diagnostic assessment; other instructional topics included learning framework and college knowledge. The program was cohort based with set beginning and end dates and with peer learning and peer support an integral part of its success. Other support activities for students included labs, tutoring, advising (which was intrusive and holistic), career counseling, and mentoring. The class time was intensive consisting of at least 120 clock hours of instruction over 10 weeks or fewer. These are the core activities and parameters that comprise the Texas IP-AES programs.

Section 7: Recruitment and Selection

This section will identify the student population served in the IP-AES programs that were evaluated in 2010-2014 in Texas and the lessons learned in recruiting or identifying the students most likely to benefit from this particular intensive model.

Target Population

The population recruited for these programs were a subset of adult learners who had some indicators of being at risk for enrolling and succeeding in higher education.[1] With few exceptions, programs recruited students who 1) assessed at below college readiness levels, 2) were 20 years of age or older, and 3) had a high school diploma or had been awarded a certificate of high school equivalency.

After observing student outcomes in the early cohorts of the program, all IP-AES site managers agreed that an essential characteristic for student success was that the participant be strongly motivated to succeed in the program. IP-AES programs are demanding with significant amounts of material covered in 10 weeks or fewer. Without a serious commitment from students to devote their time to the academic rigor of the work during the entirety of the program, administrators believe high drop-out rates will be the result. Therefore, during the participant selection process, the applicant's motivation to succeed in the program and aspire to college became criteria for acceptance into the program. While some programs recruit highly motivated students with lower skill levels, the majority of programs recruit students with reading, writing, and mathematics skills that are below college readiness but normally equivalent to high school skill levels (Adult Secondary Education, NRS EFL 5-6). (See Appendix A for NRS Levels.)

Recruitment

Recruitment responsibilities for IP-AES programs fall into the hands of the site manager and/or coordinator or transition specialist. Outreach to the target population—especially adults with certificates of high school completion or who are years past high school graduation—can be challenging. The strategies for reaching potential IP-AES applicants are below:

High School Equivalency Classes

The most successful strategy for recruiting potential students to the program is soliciting students enrolled in classes that prepare them to take a high school equivalency assessment. IP-AES administrators will usually attend the first day of these classes at their college or partnering adult education center to "plant the seed" in students who might be interested in attending college after they receive their Certificates of High School Equivalency (CHSE) but who still need more academic preparation. Administrators usually return to these classes near their completion to explain further about the purpose and merits of the intensive program. This face-to-face approach is effective because potential IP-AES students meet a person expressing a stake in their quest to earn a college credential. Administrators leave materials, such as flyers and brochures, with information about and the program and how to apply for the program. (See Appendices I and J for examples of a flyer and a brochure.)

[1] Texas Education Code (TEC), Chapter 61.0593 (b). Definitions.

Recipients of High School Equivalency Certificates

IP-AES administrators have, or can acquire, lists of previous recipients of the Texas High School Equivalency Certificate (TxCHSE) and their contact information. These site managers use this information to recruit students into the intensive program by sending solicitation letters to those individuals with the accompanying IP-AES information materials. In some programs, the intensive program administrators work closely with the testing centers where the assessment for high school equivalency is administered to obtain written permission from students to share test scores and contact information with the program. In others, the program advisers or administrators go in on testing day and present to students about the program or provide students brochures about the intensive program prior to their taking the assessment. Administrators then follow up with those individuals who passed the assessment but scored below college readiness levels. (See Appendix K for an example of a solicitation letter sent to recipients of the TxCHSE who are potential IP-AES students.)

Referrals from Community Partners

Section 4 on Program Personnel described the role of community partners in IP-AES programs. These partners serve as an excellent source of potential student referrals to the program. Community partners may be members of these groups: a) the Workforce Board, b) nonprofit organizations serving the needs of at-risk populations, particularly low-income, single parent women, c) work-related nonprofits, such as Goodwill, d) faith-based organizations, e) charities, such as United Way, f) literacy councils or organizations, g) selected businesses, h) chamber of commerce organizations, i) public school systems, j) universities, and k) other education-related organizations, such as Head Start. Administrators either recruit in person at these organizations or send solicitation letters with information materials attached to them. (See Appendix L for an example letter.)

Referrals from Former IP-AES Students

One of the most successful recruitment strategies across all programs was only realized after several cohorts of students had gone through the intensive programs. Graduates of IP-AES programs are often the best ambassadors for the program and are an excellent source for program referrals. Former students recommend their friends, co-workers, and family members who might benefit from the program. In addition, former students sometimes accompany program administrators on recruiting trips to high school equivalency classes and community partner organizations.

Outreach to and Referral from College Advisers

It is critically important that site managers make an effort to meet and network with the advisers from the sponsoring community colleges. The IP-AES program should become part of the academic fabric of the college and an important component where advisers can refer appropriate students. Though many underprepared students can and should be placed immediately in developmental education courses, others might be better served in an IP-AES program. Ideal candidates would be those who meet the above criteria for the target population; if successful in IP-AES, these students could bypass two, or even all three, levels of developmental education in English and/or math within 10 weeks or fewer.

Developmental Education

Some of the programs partner with the developmental education (DE) program at their college to recruit students who were unsuccessful in traditional DE programs. The college-based intensive programs also work with their registrar to identify students who had dropped out of developmental education courses without taking any credit coursework. Some of these students might be ready to attempt postsecondary education once again after first going through an intensive college readiness program.

Marketing or Advertising Campaign

IP-AES administrators seek community locations that might reach members of the target population. They put up flyers at big box stores, selected businesses such as manufacturing plants, churches, libraries, regional educational service centers, and college campuses. Programs in partnership with regional education service centers arrange to have flyers sent home with children attending area public schools in their service region in order to target parents who might be eligible for the IP-AES.

Some administrators place ads in newspapers and on the radio, After analyzing participants' statements of where they had heard about the program, site managers indicated that although newspaper ads are not likely to reach potential applicants directly, these efforts still serve to raise public awareness about the program, which could eventually result in more referrals. Some site managers also establish an IP-AES Facebook page and a page on the community college system website as part of a marketing campaign for the program. In addition, some send solicitation letters to prospective applicants either who had inquired about the program or who had been referred to the program. (See Appendix M for an example of such a letter.)

Other Recruitment Approaches

Some IP-AES programs have—with various degrees of success—attempted the following additional approaches to recruitment:

1. Set up a booth at the community college's open house day;
2. Speak to prison parolees at their release orientation, particularly those who received a certificate of high school equivalency while incarcerated. (Note: This was used in one adult education program with a large incarcerated population);
3. Place yard signs in highly trafficked areas.

Selection Process

Selection processes can differ from program to program, but many programs use the following processes to select their IP-AES participants:

Application

Many programs have an application form for IP-AES applicants to complete. Some administrators use a brief form to gather basic information about the candidate, including contact information and relevant academic background. However, other administrators have a more comprehensive application they use to assess the applicant's time commitment, motivation, interest, and drive to participate in the program. One program is highly selective and

typically eliminates about 40 percent of the candidates based on the application. (See Appendix N for an example of an IP-AES application form.) Other programs that have more modest applicant pools invite all applicants in for a one-on-one interview.

Interviews

With rare exceptions, IP-AES administrators conduct one-on-one interviews with perspective candidates. Site managers believe this is a crucial part of the selection process, as only in an interview can one accurately judge some of the essential characteristics needed for a successful IP-AES student. Administrators look closely for evidence of the applicant's motivation and commitment to complete the program and enroll in college. As an example, one site manager initially asks each candidate the question, "Tell me what you know about our program?" Those candidates who have done their homework to enhance their chances of getting into the program can recite the purpose of the program and name many of its components. Overall, administrators use the interview to identify 1) the applicant's motivation and drive to succeed in the program, 2) the intended educational goals of the candidate, 3) the likely academic skill level of the candidate, and 4) the applicant's ability to attend all classes by having adequate transportation, childcare arrangements, and work-schedule accommodations.

Appendix O has an example of an interview protocol with suggested questions. This interview form identifies three designations of the candidate's suitability for the program: green (accept), yellow (continue to evaluate), and red (do not accept). For those forms marked yellow, a second administrator interviews the candidate and makes a final decision on his or her suitability for the program. A strong recommendation from the candidate's former high school equivalency instructor (if available) can be very helpful for an applicant who receives a yellow designation.

Many programs will use the scores from high school equivalency assessments to help determine if candidates' academic profiles fall at or above adult secondary education levels. Candidates who are conditionally accepted, but who do not have assessment scores, sometimes must take the TABE test to determine their skill levels in reading, writing, and mathematics before final program acceptance is given.

Conclusions

From the data collected from 2010 to 2014, IP-AES programs enrolled 15-25 students in a single cohort. Most programs had a much higher percentage of students with certificates of high school equivalency than with high school diplomas, as much as an 80/20 percentage distribution. This may be because the students who had passed an assessment and were awarded a certificate of high school equivalency were much easier for the adult education programs to locate and target for selection. Other programs had a more balanced ratio of both TxCHSE holders to high school graduates. Regardless of the type of secondary credential held by the applicant, the selection process used by the programs resulted in the selection of participants (as described in this section) who had a high probability of success and were best suited for the program.

Section 8: Curriculum Development

This section will cover the curricula for English/language arts (reading and writing) and for mathematics. Curriculum-related materials for learning framework and for college knowledge are located in section 11.

Standards-Based Curriculum

Standards-based education has been an integral part of the K–12 landscape for well over two decades. While not without criticism, the movement continues today, as well-defined and measurable descriptions of expected and desired student outcomes serve to focus curricular constructs and pedagogy. In addition, assessment instruments—aligned specifically to the standards—can measure student achievement of the targeted skills.

The standards movement has moved beyond K–12 education into the domain of college and career readiness. On the national level, 44 states have adopted the Common Core Standards, which include a college readiness component.[1] Susan Pimentel, in a report for the U.S. Department of Education, Office of Vocational and Adult Education (now the Office of Career, Technical, and Adult Education), further adapted these standards for the adult education population. Her report prioritizes the Common Core State Standards into the *essential* skills adult learners need in the areas of English/language arts and literacy and of mathematics to be ready for postsecondary education and the workforce.[2] Acknowledging that adult learners have limited time to devote to adult education programs, Pimentel identified a "manageable set" of college and career readiness standards that are important to adult students.

Texas, as noted in Section 1, has produced its own college and career readiness standards (Texas CCRS).[3] Developed by both K–12 and postsecondary educators in 2008, these standards reflect a broad consensus of the student outcomes necessary for success at higher education institutions. Accordingly, the Texas IP-AES programs use these standards as a basis for their curricula for English/language arts, mathematics, and cross-disciplinary skills.

Suggested Practices

Curriculum Committees

Typically, committees are responsible for designing the English/language arts curriculum and the mathematics curriculum at IP-AES programs. Committee membership usually includes the site manager, course instructor, representatives from developmental education, and regular credit faculty from the college (or partner college), and other personnel from adult education (e.g., high school equivalency program instructors). Outside consultants from universities and/or from similar programs in the state can also be helpful in curriculum development. All the above individuals can bring different but important perspectives to the curriculum design process.

[1] National Governors Association for Best Practices and Council of Chief State School Officers (2010).
[2] Pimentel (2013).
[3] Texas Higher Education Coordinating Board and Texas Education Agency (2009).

Standards

As noted above, IP-AES programs use the Texas CCRS standards as the blueprint in establishing content and skill attainment of the English/language arts and mathematics curricula; i.e., curriculum content is aligned specifically with most of these standards. Accordingly, program administrators and stakeholders judge program success by student achievement of the content, as measured by the Texas Success Initiative Assessment (TSIA) diagnostic, which is also aligned with the standards.

One IP-AES program uses the following content list, which reflects topics in the standards, as a starting point in curriculum development:

CURRICULAR CONTENT

MATH: Using Texas CCRS as a guiding reference, math content will include

1. Number representation and number sense
2. Linear equations and inequalities
3. Algebraic expressions and equations
4. Word problems and applications
5. Quadratic and other polynomial expressions and functions
6. Expressions, equations, and functions involving powers, roots, and radicals
7. Rational and exponential expressions, equations, and functions
8. Plane geometry
9. Transformations and symmetry
10. Linear, area, and 3-D measurements
11. Interpreting categorical and quantitative data
12. Statistical measures
13. Probabilistic reasoning
14. Connection of math as a language to real world applications

READING: Using Texas CCRS as a guiding reference, reading content will include

1. Vocabulary in context (context clues): examples, synonyms, antonyms, and general sense of the passage
2. Identifying main ideas, supporting details, and implied main ideas
3. Recognizing relationships in reading passages
4. Recognizing and understanding inferences and implications
5. Recognizing and understanding purpose, tone, and organizational or rhetorical strategies and use of evidence
6. Recognizing and understanding arguments being made
7. Identifying and analyzing ideas and elements of literary texts

WRITING: Using Texas CCRS as a guiding reference, writing content will include

1. Basic sentence structure
2. Avoiding run-on sentences, comma splices, sentence fragments
3. Proper use of verb tenses
4. Subject/verb agreement and pronoun agreement
5. Punctuation and spelling
6. Word and sentence structure variety

7. Transitions and parallelism
8. Essay, report, and research writing
9. Rhetorical effectiveness and use of evidence
10. Prewriting process: brainstorming and organizing
11. Thesis statement and topic sentences
12. Developing supporting details
13. Drafting and revising

(See Appendix P for an IP-AES English/language arts syllabus that takes reading and writing topics and further develops them into learning outcomes—also reflective of the Texas CCRS standards—along with corresponding in-class assignments and homework for each learning outcome. In addition, consult Eric Paulson's work on components of a college readiness reading/writing course for more information on IP-AES English/language arts curriculum development; this work is part of Appendix MM.[4] For more information on IP-AES mathematics curriculum development, refer to the work of Selina Mireles, also in Appendix MM.[5] Further, see Appendix Q for an IP-AES math syllabus.)

Note that the accelerated time frame of IP-AES programs prohibits the inclusion of all Texas CCRS standards into the curriculum. As Pimentel did in prioritizing essential skills from the Common Core college readiness standards for adult learners, IP-AES curriculum developers also had to be selective in choosing standards from the Texas CCRS. Therefore, there are some curricular differences from one IP-AES program to another. However, they all draw from the same Texas CCRS blueprint.

Curriculum Specific to IP-AES

Although there is clearly content overlap between developmental education courses and IP-AES classes, the curricular construct of the IP-AES program should be specific to IP-AES. Using the Texas CCRS as the framework, the IP-AES curriculum for a given area will crossover with traditional developmental education course divisions (e.g., an elementary algebra course followed by intermediate algebra). This is one example of how IP-AES is different from a traditional developmental education model. Although course instructors sometimes use developmental education texts, they always adapt such materials to IP-AES curricula.

Pre-Testing

Most IP-AES programs use the results of the pre-program TSIA testing of all students to determine curriculum starting points, which thereby change, on a cohort-to-cohort basis depending on the academic level of the cohort. These TSIA results also give instructors overall areas of academic strengths and weaknesses of the cohort, which is useful for curriculum planning. (See the next section on Pedagogy for related instructional uses of the TSIA.)

Instructors usually address "prerequisite" skills quickly, relying mostly on students to practice and refresh their basic skills outside of class using assigned computer-based (or online) materials. Students also are encouraged to address these basic skills areas before the program begins. One IP-AES program offers instruction and tutoring for students needing prerequisite work a week prior to the regular program start date.

[4] Paulson (2013)
[5] Mireles (2013)

Career Contextualization

While none of the grant-funded IP-AES programs from 2010-2014 used contextualized curricula, specific to a particular career, instructors, then and now, include in their curricular (and teaching) approaches opportunities for students to explore more information about careers they may be interested in pursuing. Programs also work with students to complete college essays and job application letters. These essays and letters provide relevance to what the students are learning in the college knowledge course but also to the students' larger career goals. Career exploration is also a common essay topic assigned by English/language arts instructors who ask students to research and write about possible career choices. Another way instructors incorporate career-related materials is by using career-specific examples in explaining content materials. For instance, math instructors might use health-related examples in word problems or in explaining proportions. In some cases, reading/writing instructors assign students readings from discipline-specific academic journals in, for example, business, health, or science to expose them to academic writing styles and vocabulary as well as the general organization of a journal article. (See Section 10 for more information on student career exploration.)

Integration of College Knowledge/Learning Framework

Content Instructors can also select assignments that complement the program's efforts in the areas of college knowledge and learning framework. For example, some IP-AES English/language arts instructors have students write sample college application essays using prompts typically seen on the Texas or national common application form. And as an example of persuasive writing, some instructors assign students to write appeal letters, in case their application for financial aid is denied. Finally, paper assignments using goal setting can complement material on the motivation component of learning framework. (See Section 11 for more information on college knowledge and learning framework.)

Integrated Reading and Writing Approach

The most comprehensive content integration in IP-AES programs is in teaching reading and writing together as two related areas of literacy in an English/language arts class. Currently, all IP-AES programs use this integrated treatment of reading and writing, and research supports the effectiveness and efficiency of this strategy. This success is likely the result of commonalities between reading and writing, as well differences between the two literacy areas.[6] For example, the concept of a thesis statement is the same whether one is reading a thesis statement or writing one, but teaching the use of thesis statements from *both* reading and writing perspectives enhances the students' understanding of the concept. Students see its use in reading and then apply it in their own writing. As one site manager said, "it is important that students know that reading and writing are two different sides of the same coin."

Another traditional method of using reading and writing skills together is to assign students a passage, document, or story to read, and then write a reaction paper to it. (For more information on this technique and on other methods of integrating reading and writing for IP-AES programs, see Erik Paulson's previously mentioned work in Appendix MM on components of an integrated reading and writing course.[7])

[6] Shanahan (2006).
[7] Paulson (2013).

Conclusion

The curricula of the critical areas of reading, writing, and mathematics serve as the major foundation of IP-AES programs. The content and student learning outcomes reflected by these curricula must be appropriate and sufficient to produce program graduates who are academically ready (or near ready) for postsecondary education. As with other components of an IP-AES program, administrators and other staff should revisit their curricular constructs each year to ensure the needs of their students are being met.

References for Section 8

Mireles, S. V. (2013) Section 2: Curriculum framework for mathematics adult basic education courses and workforce. In E. Payne, Y. Ramirez, E. Paulson, S. Mireles, T. Acee, and C. Weinstein, *Adult education and literacy (AEL) to postsecondary transition: Curriculum guidelines*. Austin TX: Texas Higher Education Coordinating Board.

National Council of Teachers of English (2011). *Reading and writing across the curriculum* (A Policy Research Brief). Urbana, IL: Author

National Governors Association for Best Practices & Council of Chief State School Officers (2010). *Common Core State Standards*. Washington DC: Author. Website: www.corestandards.org.

Paulson, E. J. (2013) Section 1: Components of an integrated reading and writing course. In E. Payne, Y. Ramirez, E. Paulson, S. Mireles, T. Acee, and C. Weinstein, *Adult education and literacy (AEL) to postsecondary transition: Curriculum guidelines*. Austin TX: Texas Higher Education Coordinating Board.

Pimentel, S. (2013). *College and career readiness standards for adult education*. Washington DC: MPR Associates, Inc.

Shanahan, T. (2006). Relations among oral language, reading, and writing development. In C. MacArthur, S. Graham, and J. Fitzgerald (Eds.), *Handbook on writing research* (pp. 171-183). New York: Guilford

Texas Higher Education Coordinating Board & Texas Education Agency (2009). *Texas College and Career Readiness Standards*. Austin, TX: Author. Website: www.thecb.state.tx.us/collegereadiness/crs.pdf.

Section 9: Pedagogy

This section will cover suggested pedagogy for IP-AES instructors. Some of the information provided is applicable for many educational settings, while other recommendations are specific to IP-AES programs. Although site managers afford their instructors a considerable amount of autonomy in conducting their classes, administrators also expect teachers to adhere to the general pedagogic approaches advocated by the program.

Suggested Practices

Teaching a Standards-Based Curriculum

The previous section on Curriculum Development described how standards-based education uses measurable descriptions of expected and desired student outcomes to form the basis of curriculum development. The section further noted that Texas developed its own college and career readiness standards (Texas CCRS), which identify the student outcomes needed for success in higher education institutions, and that IP-AES curricula are based directly on these standards, including the cross-disciplinary standards that promote critical thinking and other higher-lever cognitive skills.

Therefore, in teaching to the Texas CCRS standards, instructors should examine the curricular standards selected for the IP-AES program for their discipline and create lessons designed to produce student outcomes reflected by the standards. Traditionally, a lesson plan starts with a set of instructional objectives that describe what students will be able do as a result of the lesson. While each instructional objective is derived from, and subsumed under, a particular Texas CCRS standard, it often contains more specificity than the standard. For example, Texas CCRS Mathematics Standard IIC1b states, “Solve for any variable in an equation or inequality that has two or more variables,” and Standard IIC2a states, “Represent the solution set of an equation or inequality in various ways (e.g., set notation, interval notation, graphical representation …).” In addressing these standards for a particular lesson, an instructor might include instructional objectives in the lesson plan that state, “By the end of the lesson, the student will be able to 1) identify and define a linear equation in two variables, 2) given a linear equation in two variables *(x* and *y*), solve for *y* in terms of *x*, 3) generate a table of five coordinate pairs of *x* and *y* that solve the equation, 4) graph the five *x* and *y* pairs on a coordinate plane and draw the line through the points, and 5) describe the slope of the line as positive, negative, zero, or infinite.”

In addition to instructional objectives, the other traditional components of a lesson plan are the steps taken to teach the lesson and the assessment technique(s) used to evaluate student achievement of the objectives. (See Appendices R, S, and T for IP-AES lesson plans for writing, reading, and mathematics. In all three plans, the instructors link their instructional objectives to corresponding standards in the Texas CCRS.)

Pedagogy Specific to IP-AES Students

IP-AES participants are nontraditional adult learners either who dropped out of high school before subsequently receiving their Certificate of High School Equivalency or who hold high school degrees but never entered college (or dropped out before receiving any college credit). Therefore, some IP-AES students may initially have negative and even distrustful attitudes about education. Many also may lack the confidence to succeed in a college

environment. However, IP-AES students are motivated to work hard in the program to position themselves to be successful in their educational goals to attend postsecondary education. This student profile requires instructors to approach these students in different ways than with more traditional students. Teachers must recognize the 1) barriers these students have faced and still face 2) anxiety they may have about learning content material at a fast pace, 3) uncertainties they have about how to study and learn, and 4) apprehension they feel about not knowing how to apply to college and for financial aid and how to navigate the college system.

To address the needs of this population, IP-AES instructors need to be particularly supportive of and encouraging to their students. Most imperative is that teachers need to communicate to their students that they (teachers) very much want and expect all of their students to succeed in the program. Teachers should also capitalize on the motivation of students and provide quick and frequent feedback on any student assignment or test. In addition, instructors should be very positive about any evidence of student progress.

Self-Directed Student Learning

Although instructors should provide a supportive environment and develop positive relationships with their students, they also should begin a process of fostering academic independence in students. While lecture is certainly an acceptable and appropriate mode of instruction (particularly when introducing a new concept), a teacher-centered style should not be the predominant pedagogic tool of IP-AES instructors. Without more student-directed active learning, students likely will not gain the confidence and ability they need to succeed on their own.[1] Instructors can move to more student-centered approaches in several ways. Teachers can ask many questions during class, especially questions that demand higher-level cognitive responses that align with the instructional objectives for the lesson. Instructors also can have students work in pairs or groups on class assignments, in which students learn from each other. Writing instructors often use a peer review process, in which students critique each other's essays using a teacher-made criteria document and a specified protocol. Students not only improve their writing from receiving feedback from others, but they also gain insight into their writing skills though the process of analyzing their classmates' work. Further, reading teachers can give different groups in the class an article and ask each group to indicate how the writer appeals to the reader through different modes (e.g., one group reports to the class on the author's use of emotion; another group reports on the writer's appeal through the use of logic; and a third group reports on the author's influence on the reader through the use of ethics).

Math teachers can also incorporate active learning strategies. An Instructor can ask students to work problems at their desks before he or she explains the answer. Like English teachers, math instructors also make use of small group work, in which students learn to help each other on aspects of problems they don't understand. Students can also brainstorm solutions in groups, feeding off each other as new ideas are generated. Math teachers also make use of board work in which students go to the board to work different problems and then explain the solutions to the entire class. (All three lesson plans in Appendices R, S, and T, in writing, reading, and math, incorporate some of these active, student learning experiences.)

Student-to-student engagement and collaborative learning can also occur outside of class if the class uses a course management system (CMS) such as Blackboard, which is a web-based communication and sharing program. Students work together online sharing ideas and material, in addition to receiving information and feedback from the instructor. (However, IP-

[1] Beder and Medina (2001); Rutschow and Crary-Ross (2014)

AES programs can only use these systems if all the students have access to computers with internet connectivity.) Further, the cohort model used in IP-AES, in which students go through the program together, also promotes the value of learning from each other and using each other as a resource. IP-AES administrators and teachers hope that students will adopt this strategy of collaborative learning when they become students in college.

Differentiated Learning

As stated in Section 7 on Recruitment and Selection, IP-AES programs target students who have a defined range of academic skills. With rare exceptions, participants have skill levels in reading, writing, and math that are below college level but above high intermediate basic education (i.e., above sixth-grade level). However, despite these academic floors and ceilings, significant disparity in ability and knowledge levels remains among students. Therefore, instructors must use pedagogic approaches that can accommodate these varying skill levels among students.

One tool that is helpful to teachers in providing differentiated learning experiences to students is pre-program testing. All IP-AES students take the Texas Success Initiative Assessment (TSIA) before instruction begins. Through this instrument, teachers gain an academic profile of the entire cohort and information on the strengths and weaknesses of individual students in all three subject areas. Therefore, instructors become aware of topics class members understand relatively well, as well as concepts that are difficult for most of the students. This information helps teachers know which topics merit more attention for class mastery and which topics need less emphasis. In addition, the pre-testing results alert teachers to those participants who generally have weaker academic skills and are more likely to need more assistance. One program offers two levels of math classes—high and low—to accommodate students with differing entering skills.

One way to assist students with more academic needs, without negatively affecting stronger students, is through tutoring. As noted in the previous section, one IP-AES program offers tutoring a week *before* the program begins to help students catch up to the rest of the cohort. Once the IP-AES starts, tutoring schedules vary by program. Instructors of many programs offer tutoring to their students either before or after regular program hours, and other programs provide tutoring through the colleges' established tutoring centers, which are open to all students including IP-AES students. (Many programs provide both types of tutoring.) Most programs encourage tutoring for students who need it, but the programs consider the service optional. However, a few programs make tutoring mandatory for students whose class assignments, quizzes, and tests fall below a specified threshold. Rather than labeling mandatory tutoring as punitive, programs regard such tutoring as part of a "plan for success."

Another method of providing differentiated instruction to students is through computer-assisted instruction. IP-AES programs often include designated lab times during the week for students to work individually on assigned projects and homework and on material that has proven difficult for them. Most programs use software that is adaptive; i.e., the instructional content and problem sets can match the skill level of the user. Some programs use software that accompanies the text material, while other programs use outside sources for computer-based instructional materials. These commercial materials either are loaded onto lab computers or are Internet-based. Online materials have the advantage of allowing students to work on these supplemental materials outside of class—assuming the students have access to a computer with Internet connections. Some programs take advantages of free online materials, such as those provided by Khan Academy.

Still another classroom method for programs to enhance learning for students with differing skill levels is to match stronger students, during paired and small group work, with those who have more deficiencies. As described above, teachers use group work as a student-directed instructional and learning tool. In forming pairs, instructors often match a stronger student with a weaker one, and in forming three- or four-person groups, teachers put students of varying skill levels together. Students with more academic needs learn from students who have a better mastery of the material, and stronger students benefit because explaining materials to others solidifies their own understanding.

Career-Based Instruction

As explained in the last section, the intensive programs described in this Guide do not use a career-based contextualized curriculum, in which all of the instruction is presented within the context of a certain profession. However, instructors do use examples when explaining concepts that are relevant to certain careers. For instance, a math instructor might explain proportions using the example of a prescribed ratio of two or more drugs that are combined into a multi-drug medication. A reading teacher can assign passages from journals of different professional fields, and a writing teacher can assign a paper in which each student must research and write about a career that may be of interest. The paper could include the following: 1) typical work responsibilities in the chosen field, 2) salary ranges for the career, 3) degree(s) required to practice the career, 4) the demand of jobs in the field and where in the state and nation the demand may be, and 5) reflections from job shadowing. (See Appendix U for such an assignment, which includes a grading rubric.)

Integration of Other Material into Content Instruction

Content instructors in reading, writing, and mathematics have curricular and pedagogic responsibilities to integrate other important program materials into their classes. Learning framework, which includes material on effective study and learning strategies, is one such example. While all IP-AES programs introduce learning framework material in separate stand-alone classes or seminars, there are opportunities for content instructors to integrate relevant study skills into their courses, particularly skills that are specific to their discipline (e.g., problem solving in math). Instructors can introduce material on note-taking, test preparation, and test-taking among other skills. This integration of study skills reinforces what students learn in their learning framework classes, with the additional benefit of applying the skill in the *context* of a specific discipline. Another advantage of integrating study skills into course content is that instructors can do so when a given study skill is relevant and when students perceive a need for the skill. For example, instructors talk about how to study for tests right before students take their first test in the class when students are clearly receptive to this information. Research shows that integrating study skills in content instruction is an effective way of enhancing student achievement.[2]

Another important opportunity for content instructors to contribute to other program goals is in the area of college knowledge. For example, IP-AES writing instructors often assign students essays to write that students could use as part of their college applications. Similarly, instructors can assign students persuasive essays for college scholarship applications.

[2] Kenney and Kallison (1994)

The most significant integration of content material in IP-AES programs is in the treatment of reading and writing, which are taught together in one English/language arts class. The previous section on Curriculum Development stressed the interconnected nature of reading and writing and the efficacy of teaching these two areas as one course. The pedagogic approaches for teaching these two areas also should make the connections between reading and writing apparent to students.

First, it is important to dispel the notion that writing is an "active process" and reading is a "passive process." On the contrary, reading should be a very active process so that the reader can 1) improve comprehension, 2) make connections (conceptual or otherwise) from one part of the reading material to another, 3) analyze and interpret the material during reading, and 4) actively reflect cognitively and emotionally on the material. Furthermore, students can actively observe the writing styles reflected in reading passages as potential models for their own writing.

Eric Paulson of Texas State University states that "the key to an integrated reading/writing approach is that everything that you do in class should have a reading action *and* a writing action, and that students view all texts from the perspective of a reader and a writer." Even through the Texas CCRS has separate standards for reading and writing, the IP-AES instructor can make (in many cases) the connection of a reading standard to a corresponding writing standard. For example, both reading and writing have standards related to thesis sentences. Teachers can use the identification of thesis sentences in discussing reading material to help students develop their own thesis sentences in writing assignments. (See Paulson's work, which is part of Appendix MM, for more specific suggestions on how to integrate reading and writing in a college readiness course, including the use of journal writing as a method for students to respond to reading material.[3])

Conclusion

The IP-AES curriculum is based on the Texas CRRS standards, and program instructors need to teach to the standards and not teach to the TSIA test (or any test). If instructors teach to the standards, then achievement gains on the TSIA, which aligns with the standards, should logically follow. Teachers also need to use student-directed pedagogic strategies and differentiated instruction to meet the needs of IP-AES students and to follow the directives of IP-AES programs. Perhaps the most important pedagogic strategy is for IP-AES programs to hire teachers most suited to the program; i.e., programs should hire excellent instructors with a passion for teaching and who are dedicated to the success of all IP-AES students.

[3] Paulson (2013)

References for Section 9

Beder, H., & Medina P. (2001). *Classroom dynamics in adult literacy education* (NCSALL Reports No. 18). Cambridge, MA: National Center for the Study of Adult Learning and Literacy, Harvard Graduate School of Education.

Kenney, P.A., & Kallison J. M. (1994). Research studies on the effectiveness of supplemental instruction in mathematics. In D. Martin & D. Arendale (Eds.), *Supplemental instruction: Increasing achievement and retention: New directions for teaching and learning, no. 60* (pp. 75-82). San Francisco, CA: Jossey-Bass.

Paulson, E. J. (2013) Section 1: Components of an integrated reading and writing course. In E. Payne, Y. Ramirez, E. Paulson, S. Mireles, T. Acee, and C. Weinstein, *Adult education and literacy (AEL) to postsecondary transition: Curriculum guidelines*. Austin TX: Texas Higher Education Coordinating Board.

Rutschow, E. Z., & Crary-Ross, S. (2014). *Beyond the GED®: Promising models for moving high school dropouts to college*. New York: MDRC.

Section 10: Enrichment and Support Activities

Enrichment and support activities of IP-AES programs include 1) career assessment and counseling, 2) academic advising, 3) tutoring, and 4) mentoring. Rather than serving as ancillary functions, as the name "enrichment/support" may suggest, site managers view these activities as critical components of their programs that promote student success.

Suggested Practices

Career Assessment and Counseling

IP-AES administrators regard career counseling as an activity that often results in students becoming more motivated to complete their program and then enroll at a higher education institution. If a student becomes interested in a particular career that requires a postsecondary credential, then accomplishing that career goal necessitates IP-AES success and college matriculation. Because it is a motivation tool, site managers often "front load" career assessment and counseling activities as part of orientation or as one of the first topics in a college knowledge class.

One effective model used at many IP-AES programs is to offer a "career workshop," often conducted by a staff member of the community college's career counseling center. During the workshop, students take a career interest inventory that uses students' perceived 1) academic strengths, 2) vocational skills and interests, and 3) personality traits to identify possible career choices that match with these skills and traits. The workshop presenter then encourages students to make individual appointments with a counselor (often the presenter) at the career center, so that the counselor can further analyze each student's completed inventory and then explore suitable career opportunities. The student can then learn more information about the potential career, including specific job responsibilities, salary ranges, the required educational credentials, and job demand. Even if this process does not result in the student selecting a definitive career choice—as is likely—the student will at least start the process of thinking about choosing a profession and the steps needed to pursue certain types of careers.

Other activities at the career workshop can include information on resume writing and job interviewing skills. In addition, practitioners from several professions often come to the workshop to speak about their work experiences. For those programs that do not wish to devote three hours to a career workshop, site managers can ask college knowledge instructors to encourage their students to take an online career interest inventory and then suggest the students seek further guidance from the career counseling center or from a designated IP-AES staff member. Alternatively, an administrator, acting in the role of a transition specialist, can meet with students on a one-to-one basis and ask each student to complete the online career interest inventory at that time, and then immediately discuss the results with the student. Other tools used by transition specialists or career counselors to aid with student career choices are the Job Values Inventory Worksheet (See Appendix V), an Occupational Exploration Worksheet (Appendix W), and a Career and Education Planning Worksheet (Appendix X).[1] These worksheets can supplement the information gained through the career interest inventory.

Online career interest inventories are available either commercially or through free government websites. The U.S. Department of Labor, Employment and Training Administration

[1] These three documents and other career exploration materials are also available on the College for Adults Website at www.collegeforadults.org.

sponsors a website and database called O*Net (Occupation Information Network) that contains information and videos on more than 900 occupations.[2] O*Net also has a free downloadable career interest inventory (O*Net Interest Profiler) that can be self-administered and self-interpreted.[3] In addition, the Texas Workforce Commission (TWC) website has career information and a free career inventory (Texas CARES Interest Profiler) that users can take and then score online.[4] Although these materials can be self-contained, site mangers stress that student career exploration is enhanced and more effective with in-person staff assistance.

Career exploration also can occur through the English/language arts class. As explained in the previous section on Pedagogy, some writing instructors assign a paper for students to research and write about a possible career, and then ask students to present the paper to the class, summarizing the major points. (See Section 9 and also Appendix U for the assignment.)

Academic Advising

Although academic advising often ensues near, or at the end of the IP-AES program, it is just as important as career counseling. In addition to post-program advising, sometimes an adviser (or the college's Director of Advising) speaks to the students in a college knowledge class in the middle of the program. The speaker provides students with general advising information, such as basic core requirements for many types of degrees, how to get an adviser, and when and how to register for classes. Some programs require an additional one-to-one session with an adviser (often the same adviser who speaks at the college knowledge class) in the adviser's office to discuss pre-registration issues.

Most imperative is post-program advising and class registration at the community college. Often, IP-AES administrators plan for the end of their classes to occur at the same time as the registration period for the community college. Students meet with an assigned adviser who usually enrolls each student in college classes. Through holistic advising, the adviser might use information such as students' career interest inventory, their high school GPA and/or the scores on their high school equivalency exam, their life/work challenges, and the results of the their highest scores on the TSIA, to inform appropriate class selections. If a student did not pass all three sections of the TSIA (in reading, writing, and mathematics), the adviser could use the diagnostic tool provided by the TSIA, among other information, to suggest a combination of semester length coursework and/or non-course based intervention.

In some programs, the site manager or coordinator sits in on the students' first advising session (for selected students or all students) to assist in the advising process. In some cases, IP-AES site managers know more about the students' academic interests and abilities than community college advisers know. Another reason IP-AES administrators have a role in first-time advising for their students is they can put two or three IP-AES students in the same class, allowing the students to realize a higher comfort level in their first semester at college and to continue to use classmates they know as academic resources. Of course, this practice is not possible (or even desirable) for future course registrations, as former IP-AES students must be able to navigate the college system on their own by that point in their college careers.

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[2] O*Net's main websites are O*Net Online (www.onetonline.org) and O*Net Resource Center (www.onetcenter.org).

[3] The O*Net Interest Profiler website is www.onetcenter.org/IP.html.

[4] The Texas Workforce Commission's main website is www.state.tx.us (see Job Seekers and Employees and then Plan Your Career), and the Texas CARES (Career Alternative Resource Evaluation System) Interest Profiler is at www.texascaresonline.com/ip/ipmenu.asp.

Tutoring

Section 9 on Pedagogy largely addresses the tutoring component of IP-AES programs. As noted in that section, class instructors often provide tutoring before and after regular program hours. At other programs, colleges' tutoring centers (known by names such as The Learning Center or Student Success Center, etc.) offer tutoring to IP-AES students as they do to any college student. Tutoring staff at these centers are sometimes advanced students or those with bachelor degrees or even regular college instructors. At many programs, students have access to tutoring from both instructors and from tutoring center staff. Lastly, a few IP-AES programs have volunteer tutors, mostly retired individuals from the community, who arrange individual tutoring sessions with students at desirable times for both parties.

Most programs offer tutoring on an optional basis for students. However, a few programs make tutoring mandatory for students whose academic performance falls below a certain threshold.

Mentoring

Mentoring IP-AES students varies from informal ad hoc meetings with individual students by various staff members to a structured process that occurs once a week with mentors (usually college students) assigned to specific students. Those serving in mentoring roles can 1) discuss any problem or barrier a student may be having that is interfering with program success, 2) provide suggestions to improve a student's program performance, 3) help with a student's college application process or with a student's application for financial aid, 4) clarify class content misunderstandings, 5) make suggestions about study skills, 6) visit one of the student's IP-AES classes, 7) address any anxiety or concern a student is having about succeeding in college, and 8) provide academic advising and information on enrolling in college classes.

Those programs that do not have a formal mentoring component ensure that students know they can and should talk to anyone on the professional staff (administrators and/or instructors) about any problem or concern they are having. In addition, a program site manager may ask a former IP-AES student, now in college, to come back to talk to a certain student about a particular issue. The site manager also may ask some former students to return to talk to students in a college knowledge class and to answer questions the students have. Administrators report that former students are willing to do this because the program graduates want to reciprocate for all the assistance and benefits they received when they were in the IP-AES program. Another example of a mentor "paying it forward" is a former high school equivalency student who went on to get his bachelor's, master's, and doctorate degrees and is now a faculty member at the community college where the IP-AES program resides. This individual does mentoring on an as-needed basis. Programs also have volunteer community members who provide mentoring when called upon by the program site manager.

Programs with more structured mentoring hire, train, and pay community college students (sometimes former IP-AES students) to serve as mentors in the program. Site managers match the mentors with specific students, and the mentor meets with his or her mentee on a regular basis, sometimes as often as once a week at a prearranged time.(See Appendix Y for a mentor check sheet of problems and issues discussed during mentoring visits, and see Appendix Z for a similar mentee check list. Both mentors and mentees turn in these sheets at the end of the program.)

Site managers of IP-AES programs that do not have a formal mentoring component cite cost factors, logistical problems in finding suitable times for mentors and mentees to get together, and a lack of the staff needed to establish and oversee the process as deterrents to maintaining a mentoring component within their programs. However, site managers also state that with additional funds for mentors and a part-time staff person, they could overcome these obstacles. In fact, many site managers would like to continue a mentoring function after their students graduate from the IP-AES program and begin classes at the community college. Site managers, in those cases, would use community college students as mentors to help IP-AES graduates make a smooth transition into the first semester of college.

While this practice may currently be cost prohibitive, programs still assist IP-AES graduates in other ways as the students make the transition into postsecondary education. Programs establish websites specific for a cohort, so IP-AES graduates can stay in contact with each other and with program staff. And program staff (administrators and instructors) follow up with selected students via email or telephone calls to inquire how the students are faring in their first semester at college. Finally, some programs host reunions to allow students to visit with staff and former classmates and to share their college experiences.

Conclusion

Enrichment and support activities can sometimes make the difference between program success and lack of success for some students. Site managers should manage their resources so they can design and implement these services to attempt to meet the needs of all students.

References for Section 10

College for Adults–National College Transition Network. (2014). *Career and Education Planning Worksheet, Jobs Values Inventory Worksheet, and Occupational Exploration Worksheet*. Boston MA: Author. Website: www.collegefor adults.org.

O*Net Resource Center. (2014). *O*Net Interest Profiler*. Washington DC: Author. Website: www.onetcenter.org/IP.html.

Texas CARES and Texas Workforce Commission. (2014). *Texas CARES Interest Profiler*. Austin, TX: Author. Website: www.texascaresonline.com/ip/ipmenu.asp.

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Section 11: Learning Framework and College Knowledge

In addition to academic deficiencies, many entering IP-AES students lack the necessary learning and study skills they need to be successful in college. These students tend to rely on low-level memorization and rote learning techniques, which are exceedingly inadequate for the higher-level cognitive demands students will face in college courses. Several IP-AES students, particularly first generation students, also lack knowledge about the college application process and the financial resources available to them for college. Furthermore, many students are unaware about support services (e.g., tutoring) available to them once they enroll in college. Many students in these programs are also deficient in computer and other technology skills that are necessary to function successfully in a college environment.

IP-AES programs must address all of these student needs. The most common intervention for providing the necessary skills in these areas is a stand-alone class, which typically goes by the name College Success or College Culture. It often has three components: 1) a learning framework component, which addresses the area of learning and study skills, 2) a college knowledge component, which provides information about college admissions, financial aid, and support services, and 3) a technology section. A college success class has at least 20 contact hours (and sometimes more) and meets at a regularly scheduled time each week. One program “front loads” the learning framework part of the class, offering it the entire second week of the program, after the first week of orientation and pre-program testing. The rationale for this timing is that students will be able to apply all the learning skills they are exposed to while they take their content courses. Other programs include some college knowledge topics and/or technology skills as part of orientation, front-loading such topics as the college application process and word processing and other computer skills. Requiring student to apply to college early in the program sends the message that the administrators expect all IP-AES participants to matriculate in college at the conclusion of the program. Front-loading computer skills is advantageous because students need these skills in their IP-AES content courses.

One-on-one sessions with administrators, acting in the role of transition specialists or mentors, supplement the material in college success classes in some programs. The advantage of one-to-one interventions is that the transition specialist or mentor can focus on the particular concern or weakness of the individual student. Regardless of the format and timing for introducing college success topics, it is essential that IP-AES programs provide adequate treatment of learning framework, college knowledge, and technology skills.

Learning Framework

College coursework requires students to apply content knowledge and concepts at high cognitive levels; students need to think critically, problem solve, and synthesize information. In addition, students must be able to “transfer” this knowledge and apply it in other academic contexts. The Texas College and Career Readiness Standards (Texas CCRS) include these skills in its “Cross-Disciplinary Standards” section, and a learning framework course is an appropriate venue for teaching these skills.

A learning framework course typically addresses these higher-level skills by first introducing students to a conceptual framework for how learning occurs; i.e., students review models of learning theory and research-based findings about learning. Then instructors present specific learning and study skills that are derived from, and consistent with, the previously taught models of learning. Hence, a learning framework course is much more robust than a study skills course that teaches students a series of different study techniques that are not undergirded by a conceptual framework. A learning framework approach to study strategies is much more likely to result in students being able to choose

from an array of learning strategies the techniques that would be the most appropriate for a given task. In addition, students become more aware of their strengths and weakness as learners and can monitor their learning strategies and adjust them as needed; i.e., they become strategic and more independent learners.[1]

In becoming more independent learners, students must engage in active learning processes. These processes allow students to move beyond simple recall of the materials into higher cognitive levels of learning that are required in college. (Refer to Appendix AA, which is a matrix developed by Claire Weinstein and Taylor Acee illustrating increasing levels of active learning strategies.) For example, low-level strategies for memorization like mnemonic devices give way to higher-level strategies, which call for organizing the materials into hierarchal structures, outlines, or concept maps.[2]

Suggested Practices for Learning Framework

Teaching

When teaching these strategies in a learning framework course, instructors should create opportunities for students to apply and practice these higher-level active learning processes. Students should not only do this as part of activities in their learning framework course, but also should apply these techniques in their IP-AES content courses. For this reason, it is important for the learning framework instructor to work together with the content instructors so that content instructors know what study strategies are being taught in learning framework and can reinforce such strategies in their own courses as they become applicable. Some strategies, when reinforced in content classes, might be relevant to any subject, while others could be applied in more discipline-specific ways. For example, how a student studies for an English essay test will be different from how a student studies for a math test.

Like content instructors, learning framework teachers in IP-AES programs are constrained by time restrictions, as their contact with students could be limited to 12–15 hours. (A regular 3 semester-credit-hour learning framework course can have as many as 45 contact hours, and a 1 credit-hour version of the course can have 15 contact hours–1 hour a week throughout a semester.) This time limitation for these intensive programs is why it is so important for content instructors to reinforce effective learning strategies in their courses. Even within these contact-hour limitations, learning framework instructors can address most of the following topics:

1. Learning Models and Systems of Learning
2. Goal Setting and Motivation
3. Time Management
4. Note-taking
5. Test Preparation and Test-Taking
6. Reducing Anxiety and Stress
7. Learning from Peers and Networking
8. Information Processing
9. Individual Learning Styles
10. Self-Regulation

[1] Weinstein and Acee (2013)
[2] Weinstein and Acee (2013)

(See Appendix BB for an example of a lesson plan on time management. For more information on learning framework curricula and pedagogy, refer to Claire Weinstein's and Taylor Acee's work, which is part of Appendix MM.[3])

Learning framework instructors are sometimes faculty at the community college who teach a similar course to regular college students during the fall and spring semesters. These faculty members are typically from the Human Development or Psychology departments. Other programs have coordinators or transition specialists, who have expertise in learning framework, teach the course.

LASSI

All IP-AES programs administer a pre- and post-program LASSI (Learning and Study Skills Inventory) assessment. The LASSI reveals student perceptions of their knowledge and use of learning strategies in 10 areas (see Section 14), and learning framework instructors use the results of the pre-LASSI to determine what learning areas are needed most by the students. Of course, different cohorts yield different LASSI results, but a high-need topic that emerges frequently is time management. This is not surprising given the demands of school, work, and family on IP-AES students. Other high-demand topics are test preparation/test-taking, reducing stress, and learning large amounts of information in short periods of time (information processing).

College Knowledge

A college success class usually includes a college knowledge component, in addition to learning framework. College knowledge refers to relevant and important information that IP-AES students need to know about successfully negotiating the college system, both before and after matriculating at a higher education institution. The instructor of a college knowledge course (often the same instructor as the learning framework component) presents much of this information, but he or she also brings in outside speakers—usually from the community college—to address issues that require special expertise. The college knowledge component of the success class typically consists of about 8 to 10 hours.

Suggested Practices for College Knowledge

Application to College

One of the first topics in a college knowledge course is the college application process. In fact, some programs make this session part of orientation. Students not only learn how to apply to college, they usually are required to complete the process of filling out the online application to the community college sponsoring the IP-AES program. Many programs also have students complete the online common Texas application, called Apply Texas, which is a centralized portal used by all Texas public universities and a few private colleges and some community colleges. Many times a representative from the college's admissions office conducts this session. As noted previously, the early placement of college admission in the IP-AES program communicates to students that college matriculation is expected of graduates of the program.

Application for Financial Aid

Another early activity of college knowledge is providing students with information about financial aid for college. This information is important because the majority of IP-AES students will need some

[3] Weinstein and Acee (2013)

kind of financial assistance to be able to attend college. Again, many times a representative from the college's financial aid office leads this session.

There is a multitude of free information about student financial aid and money management to aid both the instructor and students. Below are some online resources that IP-AES programs can use when discussing financial aid:

1. The National College Transition Network has a student website called College for Adults (www.collegeforadults.org), which is designed to help adult students make a successful transition to college. The Financial Planning section of the website includes extensive information on financial planning for college, including the topics of a) Budgeting, b) FAFSA (Free Application for Federal Student Aid), c) Grants and Scholarships, d) Loans, and e) Other Aid Resources.

2. The nonprofit foundation National Endowment for Financial Education (NEFE) developed a booklet for the National College Transition Network, called Mapping Your Financial Journey: Helping Adults Plan for College. Topics include the following: a) Financial Basics and Record-Keeping, b) Money Pitfalls, c) The True Cost of College, d) Financial Aid and Sources of Income, and e) Other Financial Resources and Tax Benefits. The NEFE (www.nefe.org) allows organizations to download free copies of the booklet (as long as there is no modification to the content). The download is currently available at: www.smartaboutmoney.org/Portals/0/ResourceCenter/MappingYourFinancialJourney.pdf

3. The U.S. Department of Education, Office of Federal Student Aid (https://studentaid.ed.gov) has a free downloadable document, called The Guide to Federal Student Aid. The parts of the document are a) Prepare to Pay for College, b) Who Gets Aid, c) Types of Federal Student Aid, d) FAFSA: Apply for Aid, and e) Repay Your Loans. The document is currently available at https://studentaid.ed.gov/sites/default/files/funding-your-education.pdf.

4. The online FAFSA application is available at https://fafsa.ed.gov.

The college knowledge instructor, or a representative from the college's financial aid office, can use some of the above materials to inform IP-AES students about financing their college education. In addition, most IP-AES programs require students to complete the online FAFSA application. Further, some programs assign a project in which students submit a plan detailing the expected expenses they will incur during their first semester in college and what financial resources they will use to cover the expenditures. (See Appendix CC for a college knowledge lesson plan on financial aid.)

College Support Services and Resources

Another major component of college knowledge is the exposure IP-AES participants receive about the support services and resources that will be available to them once they are enrolled in college. Two such services are academic advising and career counseling. The previous section on Enrichment and Support Services described how IP-AES programs incorporate these two activities as college knowledge components, and, therefore, will not be replicated here. In addition to advising and career counseling, college knowledge instructors inform students about 1) tutoring services, 2) library resources, 3) writing and math labs, 4) the financial aid office, and 5) personal psychological counseling. Many programs conduct campus tours visiting all these centers so that students can get a "hands-on" feel for what resources and services they can take advantage of as college students. A few programs also take students on a bus tour of local universities for those planning to apply to or transfer

into a four-year institution. During these tours, students often visit similar centers and offices, as noted above for community colleges.

College Survival Skills

College knowledge instructors further prepare IP-AES students for college by teaching "college survival skills," which can include 1) how to be a self-advocate, 2) how to best schedule classes, 3) what materials/supplies/technology are needed, 4) where to get less expensive textbooks and other class materials, 5) where to get on-campus jobs, 6) how to seek help from faculty and from other students, 7) how to get the "best instructors," 8) where to best study on campus, and 9) where to get day care on, or near, campus. Some programs bring back former IP-AES students to a college knowledge class, so current students can ask questions about surviving and excelling in college. (See Appendix DD for a list of the most frequently asked questions by IP-AES students to former participants of the program.)

Information about the above topics can reduce the anxiety that many adult learners have about attending college for the first time as a "nontraditional" student. Another activity that a few programs provide to demystify the college-going experience is to arrange for the IP-AES students to attend a regular college class. During this experience, IP-AES students can likely recognize that a college class is not beyond their reach.

Computer/Technology Skills

Preparing adult students for college also necessitates ensuring that they have the requisite computer and technology skills needed by all college students. These skills include the following: 1) use of Word, PowerPoint, and Excel, 2) ability to perform Internet searches and literature reviews through library databases, 3) use of email, 4) understanding and use of a learning management system such as Blackboard, 5) familiarity with the college's website, and 6) use of flash drives and other technology devices. Since many of these skills are not only needed for college but also for IP-AES classes, technology skill instruction (which can be five or more hours) in IP-AES programs often occurs either during orientation or during the early part of a college success (learning framework/college knowledge) course. (Refer to Appendix EE for a sample lesson plan on technology topics.)

Conclusion

Learning framework, college knowledge, and technology skills are all part of a knowledge and skill set that students need to be successful in college, and, therefore, are essential to IP-AES programs. Many IP-AES students acknowledge on post-program surveys that they gained much confidence in being prepared for college because of the college success component of their IP-AES programs.

References for Section 11

Weinstein, C. E., & Acee, T. W. (2013). Section 3: Designing, implementing, and/or refining a learning framework course or intervention in adult and postsecondary education. In E. Payne, Y. Ramirez, E. Paulson, S. Mireles, T. Acee, and C. Weinstein, *Adult education and literacy (AEL) to postsecondary transition: Curriculum guidelines*. Austin TX: Texas Higher Education Coordinating Board.

Section 12: Student Learning Assessment

As indicated in Section 8 on Curriculum Development, IP-AES programs use standards-based curricula for their English/language instruction (in reading and writing) and for mathematics. The section further noted that the standards for IP-AES come directly from the Texas College and Career Reading Readiness Standards (Texas CCRS). Then Section 9 on Pedagogy explained that instructors of the above disciplines teach to these specified Texas CCRS standards. The final component in this teaching/learning cycle is the assessment piece, which determines if students have acquired the knowledge and skills reflected by the standards as a result of the IP-AES program.

Section 14 on Program Evaluation will describe in detail the use of pre-program and post-program testing that ultimately determines the degree of student achievement gains of participants in the IP-AES programs. However, instructors and students clearly cannot wait until the end of the program to ascertain how much of the material the participants mastered. Students need multiple forms of feedback throughout the program to confirm the skills and knowledge they understand and identify the areas they need to improve upon. Teachers provide this feedback through different assessment techniques, as listed below.

Suggested Practices

Classroom assessments

Classroom evaluation methods such as quizzes, tests, group work, board work, and in-class assignments provide IP-AES instructors with opportunities to assess student learning and provide feedback to the students. While these methods are notably traditional, they still serve as valid and useful assessment tools.

Outside Assignments

Other traditional, but useful, evaluation methods include homework assignments, projects, and essays/papers. One IP-AES writing instructor assigns one essay every week of the program. A student turns in the essay, receives feedback from the instructor, and then revises the essay until it is acceptable. In addition to instructor feedback, Section 9 on Pedagogy describes the value of peer review of writing and other assignments.

Computer-Based Assessment

Section 9 also mentions that many programs use computer software programs that allow students to supplement classroom instruction and to work on additional practice problems. The programs provide immediate feedback to students' responses along with corrective instructional information. Usually, these materials require a specified level of mastery before students can continue to the next set of problems. In addition, the software usually includes a teacher management system in which the instructor can monitor all student progress.

Portfolios

Student portfolios are a mechanism to collect student work completed throughout the program to provide a varied set of assessment metrics for most all IP-AES activities. Included in a portfolio can be pre- and post-program assessment results, attendance records, a copy of the student's college

essay, a goals statement, a proposed degree plan, and major tests and class projects, including a research paper on career interests.

The value of the portfolio for both the instructor and the student is that both parties have a set of representative samples of the student's work during the entire program.

Conclusion

Regardless of the type of learning assessment used, it is important that instructors provide prompt feedback to the students and in enough detail to give the student guidance for improvement. It is not necessary to assign "grades" to any assessment, as the purpose of the evaluation and feedback is only to improve student performance. However, a few programs do assign grades as a way to replicate the college experience. Also, some programs use grades to establish benchmarks that can trigger mandatory tutoring (or even program dismissal).

Section 13: Professional Development

Texas requires certified adult education staff (teachers, coordinators, directors, and counselors) to acquire 12 hours of professional development annually. Those who are not certified need an additional 12 hours for the first two consecutive years of work in adult education (unless they have earned 6 graduate credit hours in adult education). Staff new to adult education (whether certified or not) need an additional 6 hours of pre-instruction training.

Professional development in adult education is an important activity that assists IP-AES staff with administering and implementing programs. While some training (especially for instructors) is specific to the IP-AES program, other types of professional development in adult education (e.g., at professional conferences) still can be applicable to the IP-AES student population.

Suggested Practices

Pre-Service Training

IP-AES programs provide their staff with pre-service training to prepare them for their roles in programs and to familiarize them with the needs of the IP-AES student population. These orientation activities include specific information about the schedule of IP-AES activities. Other topics in IP-AES pre-program professional development can include

1. Program goals
2. Pre- and post-program testing
3. Using pre-testing for curricular and pedagogic guidance
4. Barriers faced by IP-AES students
5. Special needs of IP-AES students
6. Standards-based curriculum (Texas College and Career Readiness Standards)
7. Objective-driven lesson planning
8. Career contextualization in IP-AES curricular and pedagogic approaches
9. Pedagogic strategies specific to IP-AES students
10. Engaging students at high cognitive levels
11. Student-driven pedagogy
12. Differentiated learning
13. Peer-assisted instruction and feedback; community building
14. Assessment techniques inside and outside the classroom
15. Integrating learning strategies into content instruction
16. Interfacing with enrichment activities, such as advising and career counseling
17. Use of technology in the classroom
18. Team teaching across disciplines
19. Lessons learned from previous IP-AES cohorts

IP-AES administrators often conduct these on-site training activities; however, other professionals involved in training can be experienced IP-AES instructors and externally hired experts. In addition, some programs secure former IP-AES students to help with some of the training. Off-site sources, such as the Texas Higher Education Coordinating Board and Texas State University, both have conducted preservice workshops for IP-AES staff on selected topics. For example, Texas State University offered a 5-day, 40-hour IP-AES workshop on English/language arts and math curricula, pedagogy, and other best practices.

IP-AES pre-service training will (and should) change from year to year as IP-AES staff gain more experience. If the same staff (particularly instructors) continue to participate in the IP-AES program after many cohorts, then training should become more advanced and more specialized to take advantage of the staff's experience.

In-Service Training

Most programs conduct some kind of mid-program formative evaluation, usually through student surveys. The information generated by this evaluation can suggest program adjustments that require mid-program professional development. For example, if there is a bimodal distribution of student responses to a question on the speed of the instruction (many saying too fast and many saying too slow), then administrators might hold a training session on differentiated instruction.

In addition to student-driven formative evaluation, IP-AES administrators frequently observe classroom instruction, which also can lead to needed mid-program adjustments, requiring additional training. For example, if an administrator observes that IP-AES teachers are using lecture-based didactic instruction almost exclusively, the administrator might hold a training session about student-directed learning.

State and National Conferences

Many adult education staff gain valuable professional development experiences at state and national conferences. Some of the largest national conferences that address adult education issues are 1) The Commission on Adult Basic Education (COABE) annual conference, 2) The American Association of Adult and Continuing Education (AAACE) conference, 3) The National College Transition Network (NCTN) conference, and 4) The National Career Pathways Network (NCPN) conference.

Texas-based adult education conferences include those conducted by the Texas Association of Literacy and Adult Education and the Texas Teachers of English Speakers of Other Languages.

Conclusion

All fields benefit from professional development, and adult education is no different. However, because intensive college readiness programs for adult learners are relatively new, training for IP-AES staff is particularly important. Ensuring that professional development evolves in response to the changing needs of the IP-AES staff is also important.

Section 14: Program Evaluation

As reflected in the previous sections of this Guide, a significant amount of work goes into planning and implementing an IP-AES program. It is, therefore, imperative to determine if those efforts have resulted in the kinds of student outcomes desired by IP-AES stakeholders.

Program evaluation traditionally consists of two types: formative evaluation and summative evaluation. Formative evaluation takes place during the program and involves collecting information and data to determine if the program is "on track" for success. This mid-program feedback allows IP-AES staff to make necessary adjustments or corrections during the program to enhance the chances of success. Summative evaluation, in contrast, consists of post-program analyses that quantify whether or not the program's goals have been achieved. For example, summative evaluation seeks to determine if the academic intervention provided by the IP-AES program resulted in students becoming college ready in the areas of reading, writing, and mathematics, as determined by the Texas Success Initiative Assessment (TSIA). This section will address both formative and summative evaluation for IP-AES programs.

Suggested Practices for Formative Evaluation

Mid-Program Student Surveys

The best source of feedback about IP-AES program effectiveness is students. Most IP-AES programs conduct student surveys while the programs are in progress. Some programs administer a survey at the midway point of the program. The survey can be quite brief, as one program asks students to identify positive/beneficial features of the program and then to suggest changes to the program. (See Appendix FF for the complete single page survey.) Another IP-AES program administers a comprehensive six-page, mid-program survey asking for student input on 1) numerous aspects of instructor/course effectiveness for all classes, 2) usefulness of enrichment activities like tutoring and advising, and 3) the quality of textbooks and other instructional material. (See Appendix GG for this survey.)

While most programs administer a single mid-program survey, one IP-AES program solicits weekly feedback from students by asking them to complete a three-item survey during their weekly College Success class: 1) Describe your greatest challenge this week; 2) Describe your greatest success this week; and 3) In your opinion, what can we do to improve the program. This same program asks students to put their names on the survey to identify students who need help. Other programs specifically request the surveys remain anonymous, under the assumption that students will be more honest and forthcoming. The norm for these kinds of student surveys is for participants to withhold their names.

The results of these surveys for formative evaluation purposes can be very revealing, often resulting in program adjustments. These program changes can be modest, such as a program changing the starting time of its program to one-half hour later to accommodate childcare issues. Other changes can be more consequential, as when student feedback (along with other information) was so universally negative about an instructor, that the program made a mid-program instructor change for that class. Both of these examples show the value of formative evaluation. Administrators should not have to wait until the end of the program to gain insight into program effectiveness. Using formative evaluation, they can make mid-program adjustments to better meet the needs of IP-AES participants.

Classroom Observations

Another mechanism to collect mid-program information about IP-AES effectiveness is for administrators to observe classroom instruction. The frequency of classroom observation is different for each program, but the most common pattern is one to two observations per instructor per week. However, one site manager makes brief visits to classrooms almost daily, primarily to "check in" and keep up with content progress. She only stays for the entire class if the visit is for evaluation purposes. In contrast, a site manager at another program only has one or two observations per cohort, based on the premise that all the instructors are experienced IP-AES teachers. This pattern is not recommended, however, because even very experienced instructors still can gain from outside observation.

Soon after the classroom observation visit by the administrator, the instructor meets with the administrator to receive feedback about the class and to exchange pedagogic ideas. The feedback is usually verbal and based on notes taken by the administrator. It can be useful for the instructor to receive written comments as well. One site manager uses an observation log to record teacher behaviors along with corresponding comments and suggestions. (See Appendix HH for this form.)

In addition to classroom observations by administrators, some programs arrange for the instructors to observe each other. The instructors meet afterward and provide feedback to each other based on their observations. Instructors also meet informally throughout the program to ask about individual students and to exchange ideas.

Staff Meetings

Staff meetings, which typically occur twice a cohort, are another opportunity for all individuals involved in the program to discuss any problem they have encountered and to brainstorm ideas on improving the program. Staff meetings also can be a venue for conducting some mid-program professional development activities based on information gleaned from the student surveys and classroom observations. (See Section 13 on Professional Development for some examples.)

Exit Interviews/Surveys

A few students in IP-AES programs, unfortunately, leave before completing the program. While it is disappointing to lose a student, identifying the reason(s) why the student left the program is important. A written survey and/or exit interview with the site manager can serve this purpose. Since most post-program surveys for students completing the program are largely positive, it is particularly beneficial to receive input from the population of non-completers. If the program did not meet their needs, the exit interview should confirm this as the case and why. In addition, the site manager should ask the non-completer how to structure the program differently to better serve students.

Of course, a student might leave the program for reasons that have nothing to do with the program itself. Issues such as child/family problems or work conflicts can cause students to depart the program. Still, knowing how these issues can affect student participation in the program is valuable.

Suggested Practices for Summative Evaluation

Pre-/Post-Program TSIA Testing

In the sample IP-AES goal matrix in Section 5, Goal 1 was for students to improve their skills in the areas of reading, writing, and mathematics, and Goal 2 was for students to achieve college readiness in these three disciplines. While the matrix was hypothetical, these two goals represent what

all IP-AES programs wish to achieve. To determine whether the two goals were accomplished, the IP-AES programs administer the Texas Success Initiative Assessment (TSIA) to all students before the program begins, and then after all academic intervention is completed at the end of the program. Although other instruments measure college readiness skills, only the TSIA aligns with the Texas College and Career Readiness Standards (CCRS). The IP-AES curriculum is based on those standards for reading, writing, and mathematics, making TSIA pre- and post-program testing the appropriate statistical method to examine the results of Goals 1 and 2. While the evaluators of the IPAES programs worked with the THECB to run the following analysis of program participants' pre- and post-TSIA scores, programs may use some or all of these measures in coordination with their institutional research (IR) or institutional effectiveness (IE) office at their college. Programs could:

1. Compile scores for students who took both the pretest and posttest TSIA for each of the three subject areas. Any student who failed to take either the pretest or posttest for a given subject area cannot be included in the analysis for that discipline. If some students fail to take one TSIA subject (either pretest and/or posttest) but take the other two subjects, those students can be included only in the analyses for the two subject areas for which they have both pre-/post-scores. Therefore, the sample size (or *N*) for the three subjects at an IP-AES program can be different for the three disciplines.

2. Run a dependent (also called paired) t test for each subject area to determine if there were statistically significant achievement gains in each of the three subject areas. Alternatively, use a repeated measures (within subjects) Analysis of Variance (ANOVA) to determine if the posttest mean in a subject area represents a significant increase over the pretest mean. Both these analyses are appropriate, because the same groups of subjects are being measured on the same outcome measure over a period of time (the length of the program). Levels of significance, if they occur, are designated at the .05 level or .01 level, meaning there is only a 5 percent or 1 percent chance, respectively, that the differences in mean scores occurred by chance.

3. Run an "effect size" analysis for each of the three subject areas. The effect size is an indication of how different the mean pretest score is from the mean posttest score; i.e., it is an indication of the magnitude of the difference. Different formulas measure effect sizes, but an "omega squared" method is commonly used after an ANOVA analysis. An effect size of 0.15 or higher using omega squared indicates that "large" or "meaningful" differences exist between the pretest mean and posttest mean. Effect size calculations are not affected by sample size; thus, it provides a better understanding of the difference that is represented in the data when the sample size is small.

4. Examine the posttest means in all three subjects to determine if the means exceeded the benchmark scores for college readiness on the TSIA exam. Note that a statistical phenomenon known as "regression to the mean" can occur because you are using a nonrandom sample and two measures (pre- and post-test scores) that are not correlated or dependent on each other. This makes it more difficult for higher pretest scores to increase on the posttest. Conversely, lower pretest scores can "tend" to be higher on the posttest because of this effect.

If a program is working without an IR office and wants to measure the success of the program by looking at the overall percentage of students who met the college readiness benchmark, they may want to do the following:

5. Calculate the number and percent increase of students who met the college readiness benchmark (on each subject area) on the posttest but failed to do so on the pretest. This is

another relevant metric of success because mean scores do not indicate how many individual students began their IP-AES program below the college readiness benchmark in one or more of the three subject areas but then obtained the benchmark threshold on the posttest.

If a program decides to do all five steps as named above, the evaluators can determine if the program met Goal 1—students will improve their skills in the areas of reading, writing, and mathematics (Steps 2 and 3) and if it met Goal 2—students will achieve college readiness in the three disciplines (Steps 4 and 5). The sample goal matrix also included "success criteria" for each of the two goals, and the above data inform stakeholders whether these success criteria were achieved. For Goal 1, the success criterion was "pre-/post-mean achievement gains will be statistically significant in two of the three content areas" (Step 2). For Goal 2, the success criteria were a) "posttest means will reach or exceed the college readiness TSIA benchmark scores in at least two content areas" (Step 4) and b) "80 percent or more of students will reach the college readiness TSIA benchmark in at least one area, 65 percent in two areas, and 50 percent in all three areas." (Step 5).

(See Appendix II for two tables of pre-/post-content results of five IP-AES programs using the TSIA.) Table 1 shows 1) pre-/post-means in the three disciplines (with writing consisting of a multiple-choice section and an essay section), 2) the statistical significant levels of the increases, and 3) the effect sizes. Table 2 shows the number and percent of students meeting the college readiness benchmarks in each subject on the pretest and then on the posttest. (Note that different combinations of the multiple choice and essay scores can qualify students for college readiness in writing.)

Pre-/Post-LASSI Testing

Goal 3 in the sample goal matrix states that students will increase their awareness and use of learning and study skills needed for college. Again, the goal matrix was hypothetical, yet the goal was a desired student outcome for all the IP-AES programs. The testing instrument used to determine this goal attainment was the Learning and Study Strategies Inventory or LASSI, which is a 10-category, 80-item assessment that captures the above outcome measure. The 10 categories of learning and study strategies are below:

ANX: Anxiety and worry about school performance
ATT: Attitude and interest
CON: Concentration and attention to academic tasks
INP: Information processing, acquiring knowledge and reasoning
MOT: Motivation, diligence, self-discipline, and willingness to work hard
SFT: Self-testing, reviewing, and preparing for classes
SMI: Selecting main ideas and recognizing important information
STA: Use of support techniques and materials
TMT: Use of time management principles for academic tasks
TST: Test strategies and preparing for tests

Pre- and posttest scores are given as a percentile against a national sample, and the testing company states that a score of the 75th percentile or above can serve as a benchmark for an area of "relative strength."

To examine the results of Goal 3, LASSI pre- and post-program testing is the appropriate statistical protocol to use, completing the above Steps 1 through 3 for the analysis—with one difference: LASSI has 10 subject areas or topics, whereas the TSIA has three areas. The success criterion for Goal 3 was that pre-/post-score gains be statistically significant in at least 7 of the 10 LASSI

areas. Step 2 reveals the results for this criterion. If a program wishes to examine college readiness in the area of learning strategies, it would continue with Steps 4 and 5, using the 75th percentile threshold for all 10 LASSI areas. (See Appendix JJ for a table of pre-/post-LASSI results for three IP-AES programs.)

As noted above, LASSI is a measure of students' awareness and use of learning and study skills. The instrument does not measure how effectively students are using the learning skills. Still, LASSI is a valuable tool that provides a relevant measure related to learning skills. It is particularly useful in pre-program testing to inform learning framework instructors about which topics among the 10 learning strategies need the most focus.

Long-Term Tracking

Other goals on the goal matrix state that students will matriculate in college, persist in college, and be successful in college. The corresponding success criteria for these three goals are as follows: 1) 80 percent or more of completers will enroll in college within six months of program completion, 2) 80 percent or more of those enrolled in college will persist through their first semester, and 70 percent will persist through their first year, and 3) 90 percent or more of IP-AES graduates enrolled in college will complete college-level coursework with grades of C or better, and 70 percent or more will earn an associate degree within three years, or a bachelor's degree within six years.

As noted in Section 5, to associate these long-term student outcomes directly to the activities of the IP-AES program is difficult because many other factors continue to play a part in the students' success (or lack thereof). Nevertheless, tracking students for these success measures is important, given that one of the ultimate purposes of adult college readiness transition programs is to help meet the needs of the workforce by producing program completers who go on to earn college credentials.

All the success criteria measures for college enrollment, retention, and success noted above are available through the Registrar's Office where the IP-AES graduates are attending college. All IP-AES programs provide their respective college Registrar's Office with a list of program graduates to first confirm matriculation at the college. Then transcripts of IP-AES completers provide information on courses taken (developmental education and college-credit courses) and final grades. The Registrar's Office can also identify IP-AES graduates who earn a college credential.

All IP-AES programs track their graduates, as long as they enroll at their respective community college. Most IP-AES graduates attend college at the site of their IP-AES program, but not all do. Therefore, tracking all IP-AES graduates who do not attend the partnering college is a challenge and can be difficult and costly in terms of personnel time needed to maintain student contact information and follow up with them regularly.

Post-Program Student Surveys

During the THECB funding of the IP-AES, the programs sought input from student completers about their experiences in their programs through the use of post-program surveys, administered on the last day of class. The THECB provided IP-AES programs with a post-program electronic survey, which student completers filled out anonymously. The survey covered a wide range of evaluative areas of IP-AES program components and included Likert-scaled items (strongly agree to strongly disagree), as well as open-ended questions. The student surveys provide one vantage point of a program's success by asking students to rate the program as well as their readiness to do college level work. These surveys are particularly useful in seeking out affective outcomes that cannot be captured by instruments like the TSIA. For example, the survey includes a question on the students' confidence

about doing college work. (See Appendix KK for a subset of this survey and selected open-ended questions.)

Surveys for Former Students

Different from post-program student surveys, former student surveys were administered by programs on their own and not as part of the THECB program evaluation. Some programs started to put together surveys to send to students who had matriculated to the college where the IP-AES program was since these students can retrospectively view their IP-AES experience in terms of how it prepared them for college. Program staff indicate they received the best return rate when they sent a survey electronically to former students. (See Appendix LL for an example of a survey for former students.) Students completed the form anonymously, with the exception of indicating their particular cohort. Among other topics, the survey asks what practices/study habits students are using in college, what support services they are using, how demanding the work is, and how the IP-AES program helped them. While online surveys are easier and may generate a higher response rate, they must be FERPA compliant.

While some program administrators do not formally seek responses from former students through surveys, they do call or email several students to ask if they have been successful, how the IP-AES program helped them, and what the program could have done differently to prepare them better for college.

Conclusion

Program evaluation is a critical element of implementing an IP-AES program. As indicated in this section, multiple types of evaluation from different sources are needed to evaluate fully whether the goals of the program have been achieved. These evaluation efforts are needed not only to confirm program success but also to gain information and insight into how to improve the program for future cohorts. In conducting evaluations, it is important that administrators make the students aware of the necessity and value of their efforts to complete assessments and surveys. Administrators should also communicate the results of assessments and surveys to students, when applicable, in a timely manner. At the same time, site managers should try to limit testing and survey fatigue by limiting such procedures to ones that are critically necessary.

Section 15: Summary and Conclusion

As stated in the introduction of this Guide, adult education is moving beyond completion of a secondary credential to include programs that promote college transition and credential completion. Earning a college credential is not only advantageous for the adult learner (financially and otherwise), but college graduates are necessary to support current and future workforce needs. As part of this expanded focus in adult education, innovative adult-to-postsecondary transition programs have emerged, including the Intensive College Readiness Program for Adult Education Students (IP-AES) in Texas.

The purpose of these intensive programs is to provide participants with the necessary skills to enter and become successful in college. More specifically, IP-AES graduates should be able to matriculate in college with limited, or no need for additional remediation work in developmental education. Furthermore, program participants should acquire the learning skills needed for college-level work and know about the support services available to college students. Finally, IP-AES graduates should enter college with the confidence to succeed in meeting their postsecondary education goals.

The core components and characteristics of an IP-AES program that may distinguish it from traditional adult education programs are the following:

- The target population is students who have been awarded a certificate of high school completion or who hold a high school diploma and, are at least 20 years old, are highly motivated, and assess at NRS 4 or higher.

- A public two-year institution of higher education administers the program (with campus partners), or the college collaborates with an adult education center to administer the program.

- The program uses a cohort model with closed enrollment.

- The program has an accelerated time frame lasting only 10 or fewer weeks but contains at least 120 instructional contact hours with students.

- The program uses a standards-based curriculum for reading, writing, and mathematics derived from the Texas College and Career Readiness Standards (CCRS). Instructors teach to these standards and evaluate students on these standards by means of the Texas Success Initiative Assessment (TSIA). Other curricular topics are learning framework and college knowledge skills.

- Enrichment and support activities include tutoring, academic advising, career counseling, and mentoring.

The purpose of this Guide is to provide information for adult education practitioners who wish to design, develop, and implement an IP-AES program as a stand-alone transition program. The Guide provides a multitude of suggestions for implementation, beginning with establishing community-based stakeholders and fostering collaborative relationships with key partners, such as developmental education staff at community colleges. The Guide ends with specific recommendations for evaluating the effectiveness of a program.

If more of these programs are developed and become successful, they will serve the needs of a very important population—adult learners who wish to further their education in a college environment, obtain a college credential, and obtain a high-skilled job. This can be a challenging goal, as these

students have faced and will continue to face potential barriers (e.g., heavy workloads, childcare and family responsibilities, limited financial resources, lack of family support, and a lack of confidence to succeed at the college level). However, IP-AES programs hold promise in helping those students address some of these barriers and matriculate in college, without the need for developmental education.

Even IP-AES graduates who enter college but do not obtain college readiness in all three subject areas (reading, writing, and math) can benefit from the achievements gains they make during their programs, if those gains *limit* the need for remediation in one or more disciplines. Some IP-AES graduates, for example, can skip some levels of developmental education, even though they may not qualify for a college-level course in a particular subject. They can also benefit from the other components of the program, including learning framework and college knowledge. Perhaps equally important, those students can realize confidence gains in their ability to succeed in postsecondary education.

This Guide reflects the lessons learned from the four years of IP-AES implementation in Texas. As programs continue in Texas and elsewhere, more data will be forthcoming to inform stakeholders in adult education about how to prepare adult learners for college. This Guide is the start of that process.

Appendices

Lessons Learned from the Design and Implementation of the Intensive College Readiness Program for Adult Education Students (IP-AES):

A Practitioner's Guide

Appendix A: NRS Adult Education Skill Level Classifications

National Reporting System Adult Education Skill Level Classifications
and Associated Grade Levels

Adult Education Classification	Approximate Grade Level
Adult Basic Education Levels	
1 Beginning adult basic education literacy	0-1.9
2 Beginning basic education	2-3.9
3 Low intermediate basic education	4-5.9
4 High intermediate basic education	6-8.9
Adult Secondary Education Level	
5 Low adult secondary education	9-10.9
6 High adult secondary education	11-12.9

Source: U. S. Department of Education, Office of Vocational and Adult Education (now Office of Career, Technical, and Adult Education)

Appendix B: Resources for Adult Education Programs

Those seeking addition information about adult education issues and programs can refer to the following resources:

Journals:

Adult Basic Education
Adult Basic Education and Literacy Journal
Adult Education Quarterly
Adult Learning
Journal of Adolescent and Adult Literacy
Journal of Research and Practice for Adult Literacy, Secondary, and Basic Education
The New York Journal of Adult Learning

Organizations:

American Association for Adult and Continuing Education
Center for the Study of Adult Literacy
Commission on Adult Basic Education
Council for the Advancement of Adult Literacy
General Education Development Testing Service
Institute for the Study of Adult literacy
Jobs for the Future
Literacy Information and Communication System
Literacy Research Initiative
National Adult Education Professional Development Consortium
National Center for Adult Literacy
National Center for Family Literacy
National Center for Literacy Education
National Center for the Study of Adult Learning and Literacy (Publications are still available, but NCSALL is no longer funded.)
National College Transition Network
National Council of State Directors of Adult Education
National Institute for Literacy
Office of Career, Technical, and Adult Education, U.S. Department of Education (formerly Office of Vocational and Adult Education)
Texas Association of Literacy and Adult Education

Appendix C: Example Goal Matrix

ACC IP-AES PROGRAM GOALS & EVALUATION PLAN					
Goal	**Activities/Strategies**	**Expected Outcomes**	**Measures of Success**	**Stakeholders/ Staff Involved**	**Methods for Collecting Data**
Goal 1: Recruit and enroll 50 students in all cohorts to participate in the IP-AES through ACC and Capital Idea	1.1 Adult Education Advisors will identify eligible students from ACC's recent GED® graduate pool and begin contacting students to participate in the program. 1.2 Information on the program will be provided to GED® instructors via print marketing material and distributed to GED® students. 1.3 Adult Education Advisors will discuss the program and its benefits in GED® classes. 1.4 Students in the Adult Education Honor Society, as well as Peierls Scholars, will be provided with print marketing material on the program and its benefits. 1.5 Capital Idea will funnel students from its program into the IP-AES, while also providing the wraparound services it typically administers.	Enrollment Targets: 1.1 Enroll 17 students in first cohort	1.1 Enrolled 14 students in first cohort	1.1 Transitions Coordinator 1.2 Project Director 1.3 Three Adult Education Instructors 1.4 Three Adult Education Advisors	a. ACC's attendance rosters b. Student Evaluation Sheets

Goal 2: Ensure students participating in the IP-AES become TSI ready and are more likely to succeed in college, as determined by THEA and LASSI	2.1 CCRS will be infused into all weekly math, reading, and writing curricula by instructors (an existing practice for ACC's Adult Education Program) 2.2 Adult Education Theory will be tailored by instructors to enhance a short-term program of this nature. 2.3 Pre-and post-testing will be used to determine TSI readiness; these tests will be provided at ACC's Testing Center, in the Highland Business Center. 2.4 Tutoring and the use of ACC's Learning Labs will be recommended, and students will receive an ACC identification card to ensure they have access to these resources. 2.5 Students will be quizzed on a weekly basis, so that instructors can tailor the curricula to the needs of the classroom and provide individualized learning.	ACC anticipates these activities will increase students' academic performance and will measure this expected outcome based on the following percentages: 2.1 80 percent of students will be TSI complete in at least one area; 50 percent of students will be TSI ready in all areas on their final THEA evaluations. 2.2 70 percent of students quizzed each week will earn a score of 70 or higher.	2.2 The students have not yet taken the post THEA. 2.3 80 percent of our students are earning quiz scores of 70 or higher during weekly assessments.	2.1 Weekly quiz performance is assessed by both the instructors and the Transitions Coordinator. 2.2 The Project Director oversees the instructors and the Transitions Coordinator offers assistance whenever needed.	2.1 Instructors' Student Evaluation Sheets will be used to assess the overall progress of each individual student and the class. 2.2 THEA and LASSI Results

Goal 3: Ensure students transition into college successfully	3.1 The IP-AES will provide a total of 12 hours of college-going success activities.	3.1 ACC expects that 90 percent of IP-AES students will complete an ACC application and financial aid form. 3.2 90 percent of students will attend an advising session. 3.3 75 percent of students will enroll at ACC in the spring. 3.4 75 percent of students will feel confident in their abilities to attend college.	3.1 85 percent of students completed an ACC application and financial aid form. 3.2 100 percent of student attended advising sessions. 3.3 So far, 70 percent of students have registered for spring classes at ACC. 3.4 90 percent of students feel confident in their abilities to attend college based on survey results.	3.1 The Transitions Coordinator will guide Adult Education Advisors 3.2 Adult Education Advisors have provided additional counseling, mentoring, and advising 3.3 The Transitions Coordinator planned student success activities, such as tours of the ACC Learning Lab and library, research information sessions with ACC librarians, campus tours (UT and ACC campuses), and guest speakers (such as International Studies Office and Adult Education career counselor).	3.1 Fall enrollment reports will track whether students remain enrolled in classes in the spring and also determine how the students do in their classes. 3.2 We will administer an exit survey to address whether students feel confident in their abilities to succeed in college.

Goal 4: Ensure students enroll in and complete credit-bearing work	4.1 Provide outreach materials to IP-AES students who have transitioned and then withdrew from courses 4.2 Link students to free study skills workshops	4.1 ACC expects that 70 percent of IP-AES students will persist through the end of their first semester of classes.	4.1 Students have not yet begun these classes, but we feel confident they will remain enrolled and excel in their spring classes.	4.1 The Transitions Coordinator will check in with students frequently and track their progress using the college's available computer technology. 4.2 This process will be recorded by instructors. 4.3 This process will be recorded by advisors.	4.1 ACC's Datatel system will be used to monitor the students' enrollment status and grades earned.

Appendix D: Letter to Student's Employer

To: Whom It May Concern

Subject: Attendance at the Free Adult College Prep Program

_____ has enrolled in the Free Adult College Preparatory program jointly offered through Alamo Colleges; Education Service Center, Region 20; and Seguin Independent School District's Office of Adult Education. The purpose of the course is to help adults prepare for enrollment in a college or vocational school. During this course, the student receives academic instruction to raise college entrance exam scores, enhance study skills, complete applications for college and financial aid, and become comfortable with a post-secondary school environment. Career exploration activities are woven into the curriculum to help the student select an appropriate course of study.

This course lasts from February 4 – April 2. Normally, the class meets Monday-Thursday 9am-2:30pm. On pre-testing days (February 6 and 7) and post-testing days (tentatively scheduled March 27 and March 28), students may be dismissed from class a little later than usual.

We hope you will support _____'s educational goals of pursuing post-secondary education. If you have any questions, feel free to contact me at xxx-xxx-xxxx.

Sincerely,

_____ _____

Supervisor, College Preparatory Program

Appendix E: Agenda of Day 1 of IP-AEL Orientation

(See next page)

Fall 2013 Intensive College Readiness Program

KILGORE COLLEGE
EMPHASIS EXCELLENCE • 1935

Adult Basic Education
300 S. High St • Longview, TX 75601
(903) 236-2004

Your Future

ORIENTATION

Tuesday, September 3, 2013 • 5:00 pm to 9:00 pm • Rm 206

AGENDA

Welcome.....Dorris Baker

Greetings.....Dr. Julie H. Fowler

Evening at-a-Glance.....Dorris Baker

Introduction of Staff.....Ms. Dorris Baker

Getting to Know Your Class/Teammates

Why ICR??????.....Ms. Bobbie McGee-Benson

Program Procedures.....Mrs. Dorris Baker

- Attendance
- Reporting Absences
- Signing in and out—WHY, WHEN, WHERE
- Fall 2013 Class Schedule/Planner
- ID Badges
- Parking Permits
- Study Labs: ABE Lab, Rm 223, M-Th 12:00-5:00; F 12:00-2:30
  Tutoring, Longview North (*across the street*), Rm 100
- Assessments (LASSI/TSI)
- ICR Incentives

B – R – E – A – K

(will meet in room 110 after break)

ICR Forms.....Ms. Dorris Baker

- Enrollment and Consent Form
- Participant Contact Information

Assessments: LASSI and TSI.....Ms. Dorris Baker
TSI Pre-Assessment .....Mrs. LaTasha Goodwyn

Meet the Teachers.....Individual Teacher Presentation

- Mrs. LaTasha Goodwyn, Language Arts
- Mrs. Debbie Thompson, Math
- Mr. Frank Mosley, Computers and College Knowledge

...Looking Ahead.....Ms. Bobbie McGee-Benson
Mr. Frank Mosley

"You must take personal responsibility. You cannot change the circumstances, the seasons, or the wind, but you can change yourself."

Intensive College Readiness

STAFF

Dr. Julie H. Fowler
Executive Dean
Kilgore College-Longview

Ms. Bobbie McGee-Benson
Adult Basic Education Director
xxxxxxxxx@kilgore.edu
(903) xxx-xxxx

Ms. Dorris A. Baker
Intensive CollegeReadiness Coordinator
xxxxxxxx@kilgore.edu
(903) xxx-xxxx

Mr. Frank Mosley
Computer/College Knowledge Instructor
xxxxxxxx@kilgore.edu
(903) xxx-xxxx

Mrs. Debbie Thompson
Math Instructor
xxxxxxxx@kilgore.edu

Mrs. LaTasha Goodwyn
Writing/Reading Instructor
xxxxxxx@kilgore.edu

Mrs. Betsy Rodriquez
ABE Support Specialist
xxxxxxx@kilgoare.edu
(903) xxx-xxxx

Appendix F: Student Enrollment Form

Kilgore College Intensive College Readiness Program • 300 S. High St. • Longview, TX 75601
THECB Summer 2014

Date:_____

Student's Name:_____**Date of Birth**:_____**SSN**:_____ - _____ - _____

Received (check one):☐ High School Diploma ☐ GED® Semester:_____ Year:_____

Gender (check one):☐ Male ☐ Female **Ethnic Origin** (check one):☐ Hispanic or Latino ☐ Not Hispanic or Latino

Race (check one):☐White ☐ Black/African American ☐Asian ☐American Indian or Alaskan Native
☐ International ☐Unknown ☐Native Hawaiian or Other Pacific Islander ☐Other (please specify):_____

Primary Language Spoken at Home (check one):☐English ☐Spanish ☐Other (please specify):_____

Education Attainment of Parents/Guardians (check one for each Parent)						
	No High School	**Some High School**	**High School Graduate**	**Some College**	**Bachelors Degree/Higher**	**Do Not Know/ Not Applicable**
Mother/Female Guardian						
Father/Male Guardian						

Check the Best Answer:	**Strongly Agree**	**Agree**	**Not Sure/ Neutral**	**Disagree**	**Strongly Disagree**
I plan to finish a college degree.					
My family is encouraging me to go to college.					
I enjoy school.					
My teacher(s) care if I am successful in college.					
I am interested in a specific college(s). Specify:_____					
I have a specific career goal(s). Specify:_____					

Did you or any member of your family qualify for a Pell Grant during the 2013-14 school year (check one)**?**

☐ Yes ☐ No ☐ Not Applicable ☐ Do Not want to Answer

Appendix G: Student Consent Form

Fall 2013 Intensive College Readiness Program

Date: _____

Student's Name (please print): _____

Student's Unique Program ID Number (assigned by program): _____

Parent/Guardian's Name _____

Kilgore College Adult Basic Education Program and the Texas Higher Education Coordinating Board are using student data to evaluate the effectiveness of this program. All data is confidential. It will be reported only in the aggregate and for the express purpose of measuring and reporting on the effectiveness of this program.

I/we understand that any such information will be used by Kilgore College Adult Basic Education Program and the Texas Higher Education Coordinating Board only for these purposes, that Kilgore College Adult Education Program and the Texas Higher Education Coordinating Board will not disclose any such information that personally identifies a student to any other party, and that any report generated on the basis of this information will not personally identify any student.

_____ Student Signature

_____ Parent or Legal Guardian (Required, if student is 18 years of age or younger)

Appendix H: Certificate of Completion

(See next page)

Adult Education Program of Kilgore College

Certificate of Completion

THIS CERTIFIES THAT

Has successfully completed the

FALL 2013
INTENSIVE COLLEGE READINESS PROGRAM

and awarded this certificate the 5th day of November, 2013

Ms. Bobbie McGee-Benson, Director

Dorris A. Baker, Coordinator

Printed with permission from Kilgore College Adult Education program.

Appendix I: IP-AES Information Flyer

(See next page)

Do you want to go to college but feel unprepared? Literacy Council of Tyler and Tyler Junior College can help!

TYLER JUNIOR COLLEGE

Celebrating 20 Years
lit·er·a·cy
LITERACY COUNCIL of TYLER
Opening Doors For Adults

If you…

- Are a high school or GED graduate
- Are over twenty years of age
- Have *never attended college*

You may qualify for our **FREE Intensive College Readiness Program**

In 2009, nine students participated in our first program and all nine successfully completed their fall and spring semesters at Tyler Junior College. All nine students credit the free Intensive College Readiness Program with their success.
We want you to be successful, too!
To find out more, contact ___ _____ at xxx-xxx-xxxx. Call soon!
Classes are scheduled for mid-September through mid-November.
Successful participants will be ready to enroll at TJC in the spring.

Tyler Junior College Mission Statement: To provide a comprehensive collegiate experience that is anchored in the rich traditions of a quality education, vibrant student life and community service. Accreditation: Tyler Junior College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Tyler Junior College. Tyler Junior College gives equal consideration to all applicants for admission, employment and participation in its programs and activities without regard to race, creed, color, national origin, gender, age, marital status, dis- ability, veteran status or limited English proficiency (LEP).

Printed with permission from Literacy Council of Tyler Adult Education program in partnership with Tyler Jr. College.

Appendix J: IP-AES Information Brochure

Former ICR Student Reviews...

Our Futures Started Here

"I learned more in three weeks than I did in high school."

"This program offers students the tools to transition into a college environment."

"To know that the teachers are here who really care about what they are here for. The teachers want us to get it (the math and the reading)!"

"The instructors gave me step by step lessons from computer skills to time management."

"I have been able to relearn different parts of subjects that I have had problems with. I've been able to meet new people and make friends."

"I will be the first in my family to go to college."

KILGORE COLLEGE
EMPHASIS EXCELLENCE ★ 1935

ICR CONTACTS:
Betsy Rodriguez, Support Specialist
Dorris Baker, Coordinator
Bobbie McGee-Benson, Director

(903) 236-2004

The Intensive College Readiness Program is made possible by a grant provided by the Texas Higher Education Coordinating Board.

Kilgore College

Your Future Starts Here!

Can You Picture Yourself Going to College????

We Can!!

Intensive College Readiness Program

June 2, 2014 to July 25, 2014

Adult Basic Education
300 S. High St • Longview, TX 75601
(903) 236-2004

Printed with permission from Kilgore College Adult Education program.

PROGRAM REQUIREMENTS

Eligibility Requirements:

- 18 years of age or older with a GED
- Graduated high school 3 or more years ago
- Plan to enroll in college in Fall 2014.
- Able to attend class everyday as scheduled (*)
- Able to complete assigned homework

(*) 2014 ICR Summer Schedule

Where: Kilgore College, 300 S. High St
When: June 2nd to July 25th
Days: Monday - Thursday
Times: 8:30 am to 1:30 pm

-APPLY NOW-

CALL OR VISIT OUR OFFICE AT:

Kilgore College
Hendrix Building, Room 228
300 S. High St.
Longview, Texas 75601
(903) 236-2004

Application Deadline
May 1, 2014
Enrollment is limited to 24 students

PROGRAM COMPONENTS

The Intensive College Readiness Program is designed for nontraditional adults with a GED who have never attended college and adults who have been out of high school three or more years, never attended college, but are now interested in attending college. The program has the following components:

PRE-ASSESSMENT: Students are given the TSI College Entrance Exam upon entry to the program. *The $40 test fee is waived.*

INSTRUCTION: Introduces and prepares students with learning skills required for college level classes in reading, writing and math. *These are tuition-free classes. Books are provided free of charge.*

COLLEGE KNOWLEDGE/COMPUTER SKILLS: Students use technology and college/community resources to navigate through the college and financial aid application process. In additional, students have a campus tour, and learn time-management and financial literacy skills. *No fees are charged.*

POST-ASSESSMENT: Students are given the TSI again. Most students make improvement in math, reading, and/or writing on this assessment. *The $40 test fee is waived.*

PROGRAM INCENTIVE: All students completing the program **and** enrolling for the 2014 Fall semester will receive a free laptop computer **or** a college scholarship of equal value.

PROGRAM BENEFITS

Do these questions sound familiar?

I've been out of school for 5 years. Is that too long?"

"How do I know where to start?"

"Can I learn to use a computer?"

"I have a job and family. How do I make time for school?"

"I already have a job. Why do I need to go to college?"

The Intensive College Readiness Program is designed for nontraditional students just like yourself, interested in attending college.

Going to College can:

- Open the doors to better job opportunities through expanded employability; getting training for a new career
- Provide an opportunity for a better way of life
- Increase your self-confidence; expand social skills
- Can make a difference between a "job" and a "career"

There are many advantages to being a nontraditional student. This program is one.

Here is your Opportunity!! Apply Now.

Printed with permission from Kilgore College Adult Education program.

Appendix K: Program Solicitation Letter to GED® Graduates

Dear GED® Graduate:

Congratulations on receiving your GED®! Education Service Center, Region 20 and Seguin ISD Adult Education have a new program designed just for you to prepare GED® graduates for college entrance. You are eligible to apply for the FREE Adult College Prep Program to be held September 7 – October 26, Mon – Thurs, 9am – 2:30pm. By completing your GED®, you have already recognized the value of education, and this program will start you on the right track to continue your education in college. Our instructors, classroom aides and supervisors have made a commitment to provide you with the tools you need and open a world of opportunities for success in your life.

The FREE Adult College Prep Program will allow you to:

- Explore college degrees and career programs
- Complete your college and financial applications
- Learn valuable tips and skills to be a successful college student
- Improve your college reading, writing and math skills
- Score higher on the Accuplacer and THEA college entrance exams

The main goal of this program is to improve your college entrance exam scores so you qualify for college credit courses upon enrollment or reduce the number of development education (remedial) courses required. Scoring higher on college entrance exams will help you avoid spending money on costly Developmental Education classes that don't count toward your degree. You will receive two Accuplacer and two THEA exams free of charge from St. Philip's College. The first tests, taken during the first week of class, will show you and your instructor your strengths and weaknesses. Then on the final day of class, you will take both tests again to see your progress and use these scores when you enroll in college.

We hope you take advantage of this opportunity! Please call us at 210-xxx-xxxx if you would like to apply for the FREE Adult College Prep Program or have any questions. Ask for Michael Collazo or Jazmine Martinez.

Sincerely,

_____ _____
Educational Specialist Supervisor, ESC-20
Free Adult College Prep Program

Appendix L: Student Referral Request Letter to Community Partner

Dear

We wanted to share this information specifically with all of you at _____. If you have clients coming in that fit the criteria for this program as shown on the flyer, we would love for you to refer them to us. The session begins _____ with pre-testing. Classes begin _____ continuing through _____. Completers will enroll into the fall semester preferably at TJC but enrollment into other colleges and career training programs is OK.

We have held this intensive program previously with very positive results. Several students from our initial classes have already graduated from TJC and moved on to the next stage of their education…students who never thought they could succeed in college.

This is a proven high-intensity, 8-week long program that will truly prepare a participant for college. It is a lot of hard work. In fact, former participants frequently state that college classes seem easy by comparison but that the preparation program is worth the effort. So if any of your clients would like to get into college (or **back** into college if an earlier attempt was unsuccessful) but don't feel ready, please have them call us.

Feel free to post the flyer or hand it out as you see fit. If you need additional flyers, let me know. Recruitment is ongoing between now and orientation. Orientation activities take place during the first week of ____. Enrollment is limited so those interested in participating need to contact us quickly. If you have any questions, please call.

Thank you,

_____ _____
Executive Supervisor
Literacy Council of Tyler

Appendix M: Program Solicitation Letter to Potential Applicants

Dear Prospective College Student,

Have you always wanted to go to college but do not know if you would be *successful*? If your answer to this question is "Yes!", then we have a program designed with you in mind!!

The Kilgore College Adult Basic Education Department has developed the Intensive College Readiness (ICR) Program. This tuition-free program is for students who:

- Graduated high school more than three years ago or,
- Have earned their Texas Certificate of High School Equivalency **and,**
- Plan to enroll in college next semester.

Our program has proven to be highly successful in assisting non-traditional students *(adults who decide to go back to school after the **traditional college** age of 18-24)* transition into college and experience greater academic success in their college coursework.

The session begins June 2 and ends July 25. Classes will meet at:
Kilgore College
300 S. High St. Longview, TX 75601
Monday-Thursday
8:30 am to 1:30 pm

The program is built on this model

- Pre Assessment
- Instruction
- Post Assessment
- College Entrance
- Instruction

This means that each student will get a chance to take the TSIA college entrance exam at the beginning of the program *(a $40 cost saving)* followed by intensive course work in math, reading, and writing coupled with computer skills and college knowledge *(all classes are tuition-free).* At the end of the program in July, each student will retake the TSIA college entrance exam *(an additional $40 cost saving).*

While we are extremely excited to be able to offer this program to you, we can only accept students who can and are willing to make the commitment and sacrifice that this program requires-- daily attendance and class participation, completing assigned homework, and a positive and determined attitude.

If this program seems right for you and you can make the required commitment, then complete the enclosed Student Intake Form Application and **return it to our office by May 1.** Enrollment is limited to twenty-four (24) students.

Sincerely,

_____
Program Director

Appendix N: IP-AES Student Application Form

(See next three pages)

ACC Transitions Program
Admission Application

PLEASE TYPE OR PRINT. Complete the entire application. You may attach a resume, but it is not a requirement. Please be sure you complete all questions, or your application will be deemed incomplete and may not be considered.

Did you earn a GED® certificate or high school diploma? GED® ____ HSD_____ If you were enrolled in ACC's GED® Program, please list your instructor's name: _____	Name (Last, First, Middle):		E-mail Addresses: PLEASE WRITE LEGIBLY!
Street Address:	City, State & Zip:		
Do you prefer DAY (10:00 a.m.—1:00 p.m.) or NIGHT (6:00—9:00 p.m.) classes?	Birth Date:	Phone:	Alternative Phone:

Are you eligible to live and work in the United States?	☐ Yes ☐ No	
Are you 18 years of age or older?	☐ Yes ☐ No	If NO, what is your current age?
Are you currently employed?	☐ Yes ☐ No	If YES, what is your current job title & department?
May we contact your supervisor?	☐ Yes ☐ No	If YES, please list the person's name and phone number.
Are you related to any ACC employees or member of the THECB?	☐ Yes ☐ No	If YES, their name & their relationship to you?
Do you have reliable transportation to and from class, four nights per week, for ten weeks?	☐ Yes ☐ No	If YES, please explain how you will get to class (your own car, a relative's car, carpool, bus, bicycle, etc):

How did you learn about this program? Check all that apply: ☐ Ad in *newspaper*
☐ ACC Website ☐ GED® teacher_____ ☐ Call from Coordinator (Charlene Gill) ☐ Saw the flier at_____
☐ Referral by current or former student (Please name the student who referred you):_____
☐ Other (Please specify):

EDUCATION

Name of School	City/State	Did you graduate?	If Yes, date of Graduation	Degree or certificate received	G.P.A. or Scores
High School		☐ Yes ☐ No			
GED® or Adult Education Program:		☐ Yes ☐ No			
Other School		☐ Yes ☐ No			
College:		☐ Yes ☐ No			
College		☐ Yes ☐ No			

WORK EXPERIENCE

Please give us an idea of your work experience. Having little or no work experience will not disqualify you from our program. However, any information you can provide about your training and/or professional experience would be helpful. Please begin with your current or most recent employer. If you held multiple positions with the same organization, detail each position separately.

Dates Employed (most recent position) From: To:	☐ Full time ☐ Part-time If part-time, # hrs./week:	Title:
Organization Name and Address:	If you will be employed in the summer semester 2013, please list below your expected work schedule:	
Description of Duties:		
Supervisor's Name, Title and Phone #:	Contact my current supervisor: ☐ At any time ☐ Only if I am a finalist candidate	Any other information you would like us to know about this position?

VOLUNTEER/COMMUNITY INVOLVEMENT

Are you involved any volunteer and/or other community projects or organizations? If so, please list them below.

Organization Name	Your Role	Dates Involved
1).		
2).		
3).		

Please answer the questions below. You may attach a separate sheet if you need more room to write your response.

1. Why are you interested in going to college?

2. What benefits do you think this program will provide you to help you on your path to college?

3. If you are admitted into the program, how do you plan to balance your work life, school, and personal obligations?

PLEASE READ CAREFULLY AND SIGN THAT YOU UNDERSTAND AND ACCEPT THIS INFORMATION.
I certify that the information on this application and its supporting documents is accurate and complete. I authorize Austin Community College to investigate, without liability, all statements contained in this application and supporting materials. I authorize references and former employers, without liability, to make full response to any inquiries in connection with this application for employment. I understand that ACC values my personal information and will never share, sell, or release my information in any way.

Applicant Signature: _____ Date:_____

Return completed application forms to
____ _____ Transitions Program Coordinator
Austin Community College
3401 Webberville Rd; Room 1209A
Austin, TX 78702
E-mail: xxxxxx@austincc.edu

Appendix O: Applicant Interview Questions

(See next four pages)

Applicant Screening

Note: This document was adapted from material from Alamo Colleges

Applicant: Last _____ First _____
Screener _____

Date _____ Phone Number
_____

Documents Collected: ☐ Social Security Card ☐ Texas Driver's License/ID
Note_____

General Applicant Information (Aligns to self cert form, p.1, sections 1 &2)

☐ G?
☐ Y?
☐ R?

Clarify:

1) Referral: Tell me about how you heard about ICR.
2) Program Interest: Tell me more about why you want to attend this program
3) Applicant Information

Name: Clarify spelling of names and nicknames

Phone Numbers: Clarify accuracy.

Clarify: ☐ GED or ☐ HS Diploma ☐ In-State ☐ Out-of-State ____

Year_____

Personal email_____

Other email_____

Notes:

NOTE: Welcome the applicant and tell him/her:

This interview combined with the score from the TABE test will help us develop a full understanding of your interests, knowledge, skills and previous work history.

All of this information will be used to make a determination concerning placement in the ICR program.

Please ask any questions along the way.

After the interview, I will schedule you for a test.

Education and Training Interests (Aligns to self cert from, p.1, Section 3)

☐ G
☐ Y
☐ R

Clarify and note:

Clarify his/her first and second choices in training (make note on right).

Ask: *What are your education goals?*

Ask: *What are your employment goals?*

Training Choices:

1) _____

2) _____

Education (Aligns to self cert from p. 3-4, section 5)

Clarify and note:

Previous education and training (If he/she indicates they have been in training program, check all that apply)

☐ College ☐ Blinn ☐ Military ☐ Never been in a training program ☐ Outside US

1) *Tell me more about the program (courses) you attended*.

2) When:

3) What college:

LEP/Foreign Questions

A. What is your native country? _____
B. Have you ever attended school in the US
   ☐ Yes ☐ No
C. What was the first language you spoke as a child?
   _____
D. What is the primary language spoken at home?_____
E. Can you read in your native language?
   ☐ Yes ☐ Some ☐ No
F. Can you write in your native language?
   ☐ Yes ☐ Some ☐ No
G. Can you read and write English:
   ☐ Yes ☐ Some ☐ No
H. When people speak English how much do you understand?
   ☐ Everything ☐ Some

If applicant has been in an ESL, GED, or Developmental Education:

Program _____

Years _____

Levels Completed _____

Support Service

1. Do you have children who will require childcare while you are in class or attending Blinn? ☐ Yes ☐ No
2. Descripe your current childcare arrangement (Afterschool? Family? Evening?)
3. How reliable is that childcare?
4. Descripe your childcare plan.

Transportation

5. Describe your transportation arrangement to school.
6. If you have a valid driver's license/ID, what state is it from.

Appendix P: Sample Reading/Writing Syllabus

MIDLAND COLLEGE
INTENSIVE COLLEGE READINESS PROGRAM
READING AND WRITING SYLLABUS
Course Instructor: _____ _____

Textbook for Learning Skills Component:
Dowing, S. (2011) On Course: Strategies for Creating Success in College and Life

Course Description:	The purpose of this course is to provide incoming students with the expository and argumentative writing and critical thinking skills required for college course work. Emphasizing essay-length compositions, the course covers critical reading and analysis, vocabulary development, thesis formation and essay organization and basic research and revision techniques.
Learning Outcomes:	Upon completion of this course, students will be able to: • Determine effective approaches, forms, and rhetorical techniques that demonstrate understanding of the writer's purpose and audience. • Craft a thesis statement that articulates a position and logically organizes relevant evidence and examples that support the thesis statement. • Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure. • Recognize the importance of revision as the key to effective writing. • Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English. • Use effective reading strategies to determine a written work's purpose and intended audience. • Identify and analyze the audience, purpose, and message of an information or persuasive text. • Identify the key information and supporting details. • Identify new words and concepts acquired through their study of their relationships to other words and concepts. • Apply knowledge of roots and affixes to infer the meanings of new words. • Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors. • Self-monitor learning needs and seek assistance when needed.
Attendance Policy:	Students are expected to attend all class sessions. Please email me if you plan to miss a class.
How to Seek Help From Your Instructor:	If you are having problems or questions, please do not disappear. Instead, **communicate with me**. I'll do everything possible to help you. **E-Mail:**

Continued

Date	Expected Learning Outcomes	In Class Assignments	Homework
	Self-monitor learning needs and seek assistance when needed.	Take TASSI	Come back tomorrow ☺
	Self-monitor learning needs and seek assistance when needed.	Self-Assessment p.6-8 or online How to Keep a Folder/Portfolio/Journal MLA Guidelines Behavior Tracking Form (BTF)	Parts of Speech Wksts
	Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English	Parts of Speech PPT & Worksheets THEA practice	Journal 1- p.18 BTF
	Identify and analyze the audience, purpose, and message of an information or persuasive text.	**MAIN IDEA/AUTHOR'S PURPOSE:** http://vclass.mtsac.edu/amla-51/Main%20Idea/Mainidea.htm http://www.youtube.com/watch?v=skX6RnnIkuM&feature=related Creator Role p.30-40	Journal 2- p.40-41 BTF Review for Quiz
	Identify new words and concepts acquired through their study of their relationships to other words and concepts.	**Quiz on Parts of Speech** **CONTEXT CLUES**: chart/p.69 Online activity: http://wps.ablongman.com/long_licklider_vocabulary_2/0,6658,416421-,00.html	Journal 3: How do you feel about the quiz? Did you get the grade you expected? What did you do to study?
	Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English.	Complete Sentences Review (PPT) & Worksheets Change Your Inner Conversation p.50-53	Journal 4: P.53-54 BTF
	Identify the key information and supporting details.	**SUPPORTING DETAILS: PPT** **Body Paragraph Development Worksheet** Complete Sentences Review & Worksheets	.Make up any missing work BTF
	Craft a thesis statement that articulates a position and logically organizse relevant evidence and examples that support the thesis statement.	**THESIS: PPT 1 & 2** Thesis Worksheets Discovering Self-Motivation p.77-84	Study for quiz on complete sentences. BTF
	Determine effective approaches, forms, and rhetorical techniques that demonstrate understanding of the writer's purpose and audience.	**Quiz on Complete Sentences** **SHOWING RELATIONSHIPS:** http://www.youtube.com/watch?v=S-4Pwbm2QJo http://www.montgomerycollege.edu/~steuben/Patterns%20of%20Organization.pdf Transition Worksheet	BTF
	Self-monitor learning needs and seek assistance when needed.	Believing in Yourself p.99-102 Journal 5 - p.103	BTF

Date	Expected Learning Outcomes	In Class Assignments	Homework
	Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure.	**PREPOSITIONAL PHRASES: (PPT)** Preposition Worksheet Finish part 6 p.103 as Essay 1	Work on Essay 1 BTF
	Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure.	TSI Practice **PIE Strategy Paragraphs:** PIE Worksheet	BTF
	Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English. Recognize the importance of revision as the key to effective writing.	TSI Practice **COMMAS: (PPT)** Comma Worksheets Essay 2 p. 22	Work on Essay 2 BTF
	Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure.	TSI Practice **COMMAS** http://chompchomp.com/exercises.htm Under "Commas," complete: Exercises: 1-5	Finish Essay 2 BTF
	Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors.	TSI Practice Essay 3 Look at Midland College's Academic Major page at: http://www.midland.edu/students/academics/allprograms.php Tell me what you want to major in and why. What skills do you possess that would make you succeed?	Work on Essay 3
	Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure.	**5 Paragraph Essay Structure** **http://www.youtube.com/watch?v=Vwm7kLvl878** **Writing Introductory Paragraphs PPT** Add 2 more paragraphs to Essay 3- Five paragraphs See p. 152-155 for ideas	Work on Essay 3 BTF
	Self-monitor learning needs and seek assistance when needed.	TSI Practice Gaining Self- Awareness p. 219-245 **Character Strengths Survey** https://www.viame.org/survey/Account/Register	Work on Essay 4
	Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors.	Behavior Tracking Form Activity- Essay **SUBJECT/VERB AGREEMENT: (PPT)** S/V Worksheets	Work on Essay 4 **Time Management Chart (TMC)**

Date	Expected Learning Outcomes	In Class Assignments	Homework
	Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure. **Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English.**	TSI Practice **SUBJECT/VERB AGREEMENT:** http://chompchomp.com/exercises.htm Under "Subject/Verb Agreement," complete: Exercises 1-5	TMC
	Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors.	TSI Practice **TSI Requirements PPT** TSI PROMPTS – Essay 5	Work on Essay 5 TMC
	Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English.	Work on Essay 5 **COMMONLY CONFUSED WORDS: (PPT)** http://chompchomp.com/exercises.htm Under "Word Choice," complete: #1, 2, 11, 12	TMC
	Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure.	Work on Essay 5 **COMMONLY CONFUSED WORDS:** http://chompchomp.com/exercises.htm Under "Word Choice," complete: #3, 4, 5, 13, 14	TMC
	Self-monitor learning needs and seek assistance when needed.	TSI Practice **Study Skills** **http://sarc.sdes.ucf.edu/?id=form_studyskills_inventory** Study Materials p. 205-215	TMC
	Self-monitor learning needs and seek assistance when needed. **Use effective reading strategies to determine a written work's purpose and intended audience.**	Time Management Chart Reflection **Reading Strategies – PPT** Structure Glance Method Be Assertive p. 197-202	
	Apply knowledge of roots and affixes to infer the meanings of new words. Produce drafts that use precise and engaging vocabulary appropriate to audience, purpose, and task, using sentences that are well crafted and varied in structure.	TSI Practice **PREFIXES/SUFFIXES: (PPT)** TSI PROMPTS - Essay 6	Work on Essay 6

Date	Expected Learning Outcomes	In Class Assignments	Homework
	Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English. **Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors.**	**LEARNING STYLES** **http://www.engr.ncsu.edu/learningstyles/ilsweb.html** **http://www.vark-learn.com/english/page.asp?p=questionnaire** Work on Essay 6	Work on Essay 6
	Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors.	TSI Practice **Learning Strategies Reflection (LSR)**	Work on LSR
	Apply newly acquired knowledge and/or learning strategies to the current or future academic endeavors.	**Take Final LASSI SURVEY** **Money for College – FastWeb.com**	Finish LSR
	POST TEST	**TAKE TSI !** **YOU ARE PREPARED!!!!!!**	

Appendix Q: Sample Mathematics Syllabus

Mathematics Success

COURSE DESCRIPTION:
This course teaches critical thinking skills and essentials math strategies needed for placement in college level mathematics. In addition, understanding the importance of learning styles and time management in math will be addressed. Course emphasis will be on fundamental mathematics, introductory and intermediate algebra, and geometry. The Mathematics Success course is delivered in a hybrid format and incorporates lab activities to develop students' problem solving and study skills as determined by an initial diagnostic test.

Course Title	Mathematics Success
Course Number	
Instructional Hours	50
Prerequisites	None
Start/End Date	
Instructor	
Instructor Contact Information	
Class Days and Times	
Classroom Location	

COURSE MATERIALS:
- **MyFoundations Lab**
- Calculator is recommended.
- Time: Expect to spend a **minimum** of 6 hours per week to work on homework, lab, and other resources.

LEARNING OUTCOMES:
Note that the bold lettering refers to specific standards in the Texas College and Career Readiness Standards. In completing this course, through various means including but not limited to collaborative learning, technology, and required software assignments, you will be able to:

- **Identify and Manipulate Integers** – Demonstrate basic skills in computations, estimations, order of operations, and applications involving Integers. **Numeric Reasoning A1-2, B, C1; Communication and Representation A,B**
- **Identify and Manipulate Fractions** – Demonstrate basic skills in computations, estimations, order of operations and applications involving fractions (rational numbers). **Numeric Reasoning A1-2; B,C1; Problem Solving A,B,C; Connections A,B**

- **Identify and Manipulate Decimals** – Demonstrate basic skills in computations, estimations, order of operations, and applications involving Whole numbers and Decimals. **Numeric Reasoning A1-2;B, C1; Problem Solving A,B,C; Connections A,B**
- **Simplify Linear Expressions** – Perform operations using the Commutative, Associative, Distributive, and Identity Properties of Addition and Multiplication (Properties of Real Numbers). **Algebraic Reasoning A, B**
- **Solve Simple Linear Equations** – Solve linear equations in one unknown. **Algebraic Reasoning A, B, C1, D; Problem Solving A, C; Connections A,B; Communication and Representation A,B**
- **Solve Ratios and Proportions –** Solve ratio and proportion and percent problems including applications. **Algebraic Reasoning A, B, C1, D; Problem Solving A,C; Statistical Reasoning B; Connections A,B; Communication and Representation A,B**
- **Calculate Quantities –** Calculate quantities related to basic geometric figures using both the U.S. and metric systems. **Geometric Reasoning A2, A3, C1, C3; Numeric Reasoning B,C; Measurement Reasoning A1, B, C, D1; Problem Solving A,C**
- **Recognize and Analyze Geometric Figures –** simple geometric figures, angle relationships, and triangle relationships using their defining properties. **Geometric Reasoning A,B,C,D; Measurement C; Connections A,B; Problem Solving and Reasoning A,B,C**
- **Solve linear equations and inequalities -** in one variable and compound inequalities in one variable **Algebraic Reasoning A,B,C,D; Numeric Reasoning A,B,C; Connections A,B; Communication and Representation A,B**
- **Solve Applications -** use linear equations **Algebraic Reasoning D; Problem Solving and Reasoning A, B, C; Communication and Representation A,B,C; Connections A,B**
- **Sketch graphs** - of linear relations **Communication and Representation A, B, C; Algebraic Reasoning D; Connections A,B ; Communication and Representation A,B,C**
- **Exponents-** use definitions and laws of integer exponents **Numeric Reasoning A,B,C; Connections A,B; Communication and Representation A,B,C**
- **Manipulate Polynomials -** Adding, subtracting, multiplying and dividing **Numeric Reasoning A,B,C; Algebraic Reasoning A,B**
- **Factor -** polynomial expressions **Algebraic Reasoning B; Numeric Reasoning B; Communication and Representation A,B**
- **Solve Systems** - linear equations in two variables including applications **Numeric Reasoning B; Algebraic Reasoning C, D; Geometric Reasoning C; Connections A,B**
- **Rational Expressions** - Identify restricted values and simplify, multiply, divide and add and subtract rational expressions**. Numeric Reasoning B, Algebraic Reasoning A,B**
- **Solve systems of linear inequalities** - in one and two variables **Algebraic Reasoning C; Problem Solving A,B; Connections A,B**
- **Recognize functions** - sets of ordered pairs, graphs, and equations, and apply function notation to applications **Functions A,B,C; Algebraic Reasoning D; Communication and Representation A,B,C**
- **Rational Expressions** - perform operations and solve equations and applications **Numeric Reasoning A,B,C; Algebraic Reasoning C; Problem Solving and Reasoning A,B,C; Connections A,B**
- **Radicals** - perform operations on expressions involving radicals, rational exponents, and solve equations involving these expressions. **Numeric Reasoning A,B,C; Algebraic Reasoning C; Problem Solving And Reasoning A,B,C; Connections A,B; Communication and Representation A,B**
- **Complex Numbers** - Perform operations on complex numbers. **Numeric Reasoning A,B,C; Problem Solving and Reasoning B; Communication and Representation A,B,C**
- **Quadratic Equations** - Solve quadratic equations and applications using methods including factoring and the quadratic formula **Functions B; Algebraic Reasoning A,B,C,D; Numeric Reasoning A,B,C;**

Connections A,B; Communication and Representation A,B,C

- **Probability and Statistics** - .Calculate basic outcomes and probability.**Numeric Reasoning B; Probabilistic Reasoning A,B; Statistical Reasoning A,B,C; Communication and Representation A,B,C; Connections A**

OBJECTIVES:

- The student will be able to reason numerically through
  1) the comparison of real numbers,
  2) knowledge of definitions and examples of complex numbers,
  3) accurate computations with real and complex numbers, and
  4) the use of estimation to check for error and solution appropriateness

- The student will be able to reason algebraically
  1) by the ability to differentiate expressions and equations with words such as "solve,"
  "evaluate," and "simplify"
  2) by the ability to recognize and use algebraic properties, concepts, procedures and algorithms to
  combine, transform and evaluate expressions
  3) by the ability to recognize and use algebraic properties, concepts, procedures, and algorithms to
  solve equations, inequalities and systems of linear equations
  4) by the ability to explain the difference between the solution set of an equation and the solution
  set of an inequality
  5) by the skills to interpret multiple representations of equations and relationships including graphs
  and charts
  6) by comfortable movement among the different representations used in algebra

- The student will be able to reason geometrically
  1) by identifying geometric figures, their symmetries, and properties
  2) by using congruence, similarity and transformations of plane figures
  3) by making connections between geometry and algebra, geometry and probability and statistics,
  and geometry and measurement
  4) by making valid geometric inferences realizing that Euclidean geometry is dependent on these
  definitions, properties, postulates and theorems

- The student will be able to apply reasoning in measurement
  1) by the selection of appropriate units
  2) by converting between units
  3) by determining area, perimeter, surface area, and volume
  4) by using scale drawings, similar figures and the Pythagorean Theorem

- The student will be able to apply reasoning using probability and statistics to include:
  1) determining types of data
  2) select appropriate visual representation of data
  3) describe patterns or inconsistencies in data
  4) to draw inferences from data in practical situations

- The student will be able to recognize and represent functions to include:
  1) recognizing relations vs. functions
  2) to distinguish between different types of functions
  3) to understand and analyze features of a function
  4) to analyze new functions
  5) to relate functions to “real-world” situations

- The student will be able to problem solve using the following steps:
  1) analyze given information
  2) formulate a plan or strategy
  3) determine a solution
  4) justify the solution,
  5) critique the implemented plan
  Once this is done logical and convincing arguments should be employed to explain and evaluate the process.

- The student will be able to use mathematical symbols, terminology and notation to represent information, interpret mathematical work, explain mathematical ideas and arguments and present the mathematical work.

- The students should be able to make connections between math itself, between math and other disciplines, between math and nature, life and real world situations and to the use of math in careers.

REFERENCE MATERIALS and RESOURCES:
A number of resources are available to you in the Math Center, including free tutoring, videotapes of individual topics, and other study aids. In addition, you are encouraGED® to find a study partner or study group with which to study. I encourage you to visit me for help or clarification of questions you may have.

MATH CENTER HOURS (TOMBALL):
Monday – Thursday 9:00 am – 6:00 pm.
Saturday 11:00 am – 2 pm

Appendix R: Sample Lesson Plan English/Language Arts – Writing

Before you begin

Title: Descriptive Writing

Context: Understanding usage of adverbs and adjectives in writing descriptive paragraphs.

English/Language Arts Standard(s): Writing: I.A.1a, 1b, 1c, 2a, 4a, 4b, 4c, 5a, 5b, 5c, 5d, 5e

Objective: To demonstrate the ability to write and edit a descriptive paragraph with the correct usage of adjectives and adverbs.

Materials: Text Book: *Along These Lines: Writing Sentences and Paragraphs* by Biays and Wershoven, paper, and pen.

Estimated time needed to prepare for this lesson plan: 2 hours.

Estimated time needed to complete this lesson plan: 1.5 hours.

The Lesson Plan

Warm-up: Complete exercise 1 on page 86 and exercise 5 on page 89. Review answers to determine understanding of correct adjective and adverb usage.

Introduce the lesson: Who in the world do you admire the most? How would you describe this person?

Apply the lesson to the real world: Remind students that effective writing is an important part of their everyday life. There are many occasions that will require you to describe something or somebody in writing. Encourage students to write every day!!

Teach the lesson: Begin the lesson with a brief review on adjectives and adverbs and how they are effectively used to describe people and things. Review brainstorming strategies (chapter 20) and model for students. Have students write one or two paragraphs describing the person they most admire. Encourage the proper use of adjectives and adverbs to describe this person. Make the person “come alive” to the reader. Allow students 45 minutes to complete this task. Practice the lesson: Have the students trade their work with another student. Have them read each other’s work aloud and offer constructive criticism and advice for improvement.

Assess the lesson:

Have students turn in work to instructor. Make suggestions for improvement and provide one-on-one feedback. Read one or two of the best writings aloud to the class. Open up class for discussion on areas of concern and ways to improve.

Appendix S: Sample Lesson Plan English/Language Arts – Reading

Benchmark from TCCRS: II Foundational Skills: (A) Reading across the curriculum; (4) Identify key information and supporting details; (c) Analyze connections between major and minor details

Objective: Students will improve overall Reading Comprehension by learning and practicing a strategy to determine the main idea and its connection to supporting details.

Special Note: 75% of the IP class demonstrated discomfort and a lack of consistency in identifying the main idea within a written piece during pre-class orientation/evaluation. As a result, a good part of the first two weeks of the class (during the Reading segment) was to present and to rigorously practice the strategies from our Reading Text: "Ten Steps to Advancing College Reading Skills", 5th Ed., John Langan.

Sample of Strategies Presented from Langan's Text

Lesson Plan: Presentation of main idea and supporting details location and assimilation: Strategy ultimately imbedded with small group practice and homework with the many varied exercises within Chapter 2 & 3 of the Reading Text.

Locating the Main Idea, General Strategy—selecting the main idea or topic sentence

1) Look for General vs. Specific ideas; the main idea is a general idea supported by specific ideas

2) Use the topic to lead you to the main idea; after identifying the topic, what general main idea is the author making about the topic of the selection?

3) Find and use key words to lead you to the main idea; "List" words (several kinds, various reasons, several causes or steps, etc.) very often highlight the main idea and "Addition" words (one, another, furthermore, etc.) can highlight the supporting details

4) Evaluating your choice as the main idea of a selection:

   a. Is your choice a general statement about the topic?
   b. And does your choice serve as an "umbrella" statement that the balance of the sentences (supporting details) fit under?
   c. If not, then reselect using the above criteria.

Assessment: 1. Check students' work during small group practice
2. Evaluate homework

Appendix T: Lesson Plan in Mathematics

Math Transitions class ACC

Texas CCRS Standards: IIA1a, IIC1b, IIC2a, IID1a, IID1c
Objectives:
By the end of this lesson students will be able to:

- Identify a linear equation
- Solve for one variable if terms of another variable
- Fill in a table
- Find coordinate pairs
- Graph points
- Draw the line representing a linear equation
- Recognize slope and describe
  - Negative
  - Positive
  - shallow
  - steep

Prerequisite knowledge:

- At least a basic understanding of algebraic equations and the coordinate plane.
- Ability to identify signed numbers
- Solving for a variable (x, y, or z, etc)

Lesson steps:

1. the instructor will write an algebraic equation on the board and then ask questions
   a. What do you know about this?
   b. What can you do with this?
   c. What do you think you could learn from this?
   d. What is this telling us?
   e. What information are we given?
   f. What information is missing?
2. Identify the equation as an algebraic equation and identify the missing variables
3. Ask students how they could find the missing variables.
   a. Can you tell me what x and y are?
   b. Why not?
   c. What do you need?
   d. So if I give you the x, how could you find the y?
   e. Is that the only answer?
   f. What if I gave you a different x?
   g. How about a third?
   h. How many answers do you think there are?
   i. How could we organize some of our answers?
   j. Is it possible to write all of them down?
4. Introduce the table and have students fill in some answer possibilities
5. Ask students to graph
   a. Individually
   b. In groups
   c. I walk to each student and check his/her work
   d. We go over the answer on the board together
   e. Questions?
6. Review the lesson
7. Assign homework from the remainder of the chapter.

Assessment:

- Noting student responses to questions
- Checking students' work at their desks
- Evaluating homework assignment

Appendix U: Research Paper Assignment on Career Path

Intensive College Readiness Program
Writing and Reading Information Paper

Informational Paper is DUE on Monday, Oct. 28, no later than 11:30 a.m.

Objectives:

- To write an informational paper that demonstrates the student's ability to research a topic and communicate the research well in writing.
- To use the Modern Language Association (MLA) style format.
- To research in-depth information on a possible career path.

Description of Assignment

Description of Written Assignment:

- Choose a career path.
- Research the career path using four (4) or more sources.
- Write a minimum of a 750 word paper using MLA formatting rules. Write the paper on a computer.
- Include a list of "Works Cited" using MLA formatting rules.
- **Email paper to instructor.**
- **Turn in a hard copy of paper to instructor**.

Description of Oral Assignment

- Present your written information orally to the class. Presentation should be no longer than fifteen (15) minutes.
- Prepare a one (1) page hand-out that includes all pertinent information on your selected career path.
- Provide a copy of the hand-out to each class member and the instructor.

Things to Include in the Paper

- Title your paper with the name of the career path. This is the topic of your paper.
- State the main idea of the paper. Remember, the main idea is a sentence that tells what you are going to talk about. The sentence also includes the writer's position or focus on the topic.
- Explain activities or duties of the career path.
- Tell what skills are needed in order to succeed in the career.
- Furnish information about job availability in the Brazos Valley and outside the Brazos Valley.
- Provide information about educational/training opportunities. Be sure to include information about where education/training could be received as well as how long it would take to complete the educational/training requirements.
- Offer cost of educational/training opportunities
- Write a strong and effective concluding paragraph.

Things to Avoid in the Paper

- **Plagiarism**
- Grammatical, punctuation, and spelling errors

Intensive College Readiness Program
Writing and Reading

Grading Rubric
Informational Paper

_____ Assignment directions were followed.

_____ Language and style were appropriate to the audience and purpose.

_____ Main idea was well stated.

_____ The supporting details were specific and in-depth.

_____ The organization was clear and logical.

_____ The sentence structure was effective and avoided errors.

_____ Plagiarism was avoided.

_____ Grammatical, punctuation, and spelling errors were avoided.

_____ The paper was emailed to the instructor on time.

_____ A hard copy of the paper was given to the instructor on time.

_____ Total

10 = superior 9 = excellent 8 = good 7 = fair 6 = poor 5 = unacceptable

Intensive College Readiness Program
Writing and Reading

Grading Rubric
Oral Presentation

_____ Assignment directions were followed.

_____ Student stayed on topic during oral presentation.

_____ Adequate eye contact, volume and speed was maintained during presentation.

_____ The one page hand-out included all pertinent information in concise form.

- Explain activities or duties of the career path.
- Tell what skills are needed in order to succeed in the career.
- Information about job availability in the Brazos Valley and outside the Brazos Valley.
- Provide information about educational/training opportunities. Be sure to include information about where education/training could be received as well as how long it would take to complete the educational/training requirements.
- Offer cost of educational/training opportunities.

_____ The one page hand-out was well-written and avoided grammatical, punctuation, and spelling errors.

_____ x 2 = _____ total grade

10 = superior 9 = excellent 8 = good 7 = fair 6 = poor 5 = unacceptable

Appendix V: Job Values Inventory Worksheet

This exercise helps you identify which job qualities you value most. Remember, these may change over time depending on your life situation. Once you begin exploring job possibilities, focus only on jobs that meet your highest ranked values.

Directions:

Rank the items below from 1 to 12, with 1 being most important and 12 the least important.

_____ Good salary

_____ Good benefits (insurance, retirement, etc.)

_____ Job security

_____ Work hours that meet your needs

_____ Satisfactory location

_____ Compatible coworkers, supervisors, customers

_____ Opportunity to learn and develop skills

_____ Challenging and satisfying work

_____ Good working conditions / environment

_____ Like / believe in what the organization does

_____ Chance for promotion / advancement

_____ Prestige and respect

Here is a question to think about:

If you are employed or have worked before, are your job values different today than when you first started working?

Next step to complete your *Career and Education Planning Worksheet*:

- In the section marked "Self-Exploration," fill in the top three job and work values that you identified above.

Adapted from the California Career Planning Guide 2003–2005

College for Adults website: www.collegeforadults.org

Appendix W: Occupational Exploration Worksheet

Occupation _____ Source(s) of information _____

Work Description and Working Conditions

What does this worker do on a daily basis? _____

In what sort of setting do they work? Inside or outside? _____

How many hours a day do they work? _____

Do they work alone or with other people? _____

What kind of equipment do they use? (for example, computer, x-ray machine, forklift, etc.) ____

What physical or health considerations are there? _____

Other questions? _____

Wage / Salary

What is the typical starting salary in this occupation?_____

Other questions? _____

Employment Outlook

What is the employment outlook for this occupation? _____

Are there many jobs in this occupation near where I live? _____

Is part-time employment usually available in this occupation? _____

Other questions? _____

Career Path and Opportunities for Growth

What are the opportunities for advancement in this occupation? _____

Other questions? _____

Education Requirements, Licensure/Certification

What education and/or training are required for this occupation? _____

Where do I go to school or get this training in my area? _____

What is the best school for this training? _____

Does this occupation require licensure or certification? _____

Other questions? _____

Next step to complete your *Career and Education Planning Worksheet*:

- Use the information you gathered on this worksheet to fill in the "Occupational Exploration" and "Educational Planning" sections.

College for Adults website: www.collegeforadults.org

Appendix X: Career and Education Planning Worksheet

Name: _____ Date: _____

Congratulations on beginning to plan for your future! Complete this worksheet as you move through the Career Planning unit. As you complete each of the activities, you can transfer key information to this worksheet. When you finish, you will have a career and education plan to take with you. It will help you think about additional information you may need to gather from other sections of the website such as Applying to College and Financial Planning.

Self-Exploration

I have the most experience doing this type of work: (Using the ***Things I Have Done Worksheet*****,** put a check mark beside the area in which you have the most experience.)

___Working with People ___Working with Things ___Working with Data

My top three skills are: (Use the ***Skills Identification Worksheet.***)

1. _____

2. _____

3. _____

My top three job and work values are: (Use the ***Job Values Inventory Worksheet.***)

1. _____

2. _____

3. _____

My top three interest areas are: (From the online ***O*Net® Interest Profiler™.***)

1. _____

2. _____

3. _____

Three occupations that I would like to explore further are: *(List the three occupations that you identified using the* online ***O*Net® Interest Profiler™.***)

1. _____

2. _____

3. _____

Occupational Exploration

For each of the three occupations you identified, complete the following section using the information you gathered on your ***Occupational Exploration Worksheet*** and/or the worksheet ***Using Videos to Learn about Occupations.***

Occupation #1: _____ Average Annual Salary: _____

Three things that a person in this type of occupation does: _____

_____

Three things that I know about the working conditions in this occupation: (For example, does it require working outside or indoors? Does it require sitting or standing all day?)

_____

This occupation matches my job values, interests, and skills in the following three ways:

_____

_____

Occupation #2: _____ Average Annual Salary: _____

Three things that a person in this type of occupation does: _____

_____

Three things that I know about the working conditions in this occupation: (For example, does it require working outside or indoors? Does it require sitting or standing all day?)

_____

This occupation matches my job values, interests, and skills in the following three ways:

_____

_____

Occupation #3: _____ Average Annual Salary: _____

Three things that a person in this type of occupation does: _____

_____

Three things that I know about the working conditions in this occupation: (For example, does it require working outside or indoors? Does it require sitting or standing all day?)

_____

This occupation matches my job values, interests, and skills in the following three ways:

_____

Educational Planning

For the three occupations you identified, complete the following section using the information you gathered on your ***Occupational Exploration Worksheets***.

Occupation #1: _____

What training or degrees do you need for this career? _____
_____

What license, if any, do you need to work in this career? _____

What educational steps do you need to take to prepare for this career? _____
_____

Where will you get your education? _____

How long it will it take? _____What will it cost? _____

How will you pay for it? _____

Occupation #2: _____

What training or degrees do you need for this career? _____
_____

What license, if any, do you need to work in this career? _____

What educational steps do you need to take to prepare for this career? _____
_____

Where will you get your education? _____

How long it will it take? _____What will it cost? _____

How will you pay for it? _____

Occupation #3: _____

What training or degrees do you need for this career? _____
_____

What license, if any, do you need to work in this career? _____

What educational steps do you need to take to prepare for this career? _____
_____

Where will you get your education? _____

How long it will it take? _____What will it cost? _____

How will you pay for it? _____

My Career and Educational Goals

Short Term Goal (6 months - 1 year):_____

_____

Long Term Goal (2 - 5 years): _____

_____

Every long-term goal is made up of many short term goals and steps. As you get closer to your long-term goal, you will set new short term goals.

The steps I need to take now to reach my long-term goals are:

Step	Date to complete step
1.	
2.	
3.	
4.	

College for Adults website: www.collegeforadults.org

Appendix Y: Mentor Checklist (Sample)

Intensive Summer Program (ISP)
Texarkana College/TISD Adult Education

Please check each item completed during the mentoring process. Use the **Comments** section of the form for general remarks or for a brief explanation of why certain activities could not be completed. Please note that all aspects of this process are kept confidential. Thank you for the time and energy you spent mentoring this semester.

Student's Name_____

As soon as possible after being assigned a mentee, I
____ contacted the mentee to exchange phone numbers, email information, office hours etc
____communicate in ways (in person, phone, email, mail) as we agreed
____ verified that the mentee lets you know of any changes in contact information
____determine meetings times and length of meeting

Early in the session, I met with the mentee in person and discussed the following:
____ any barriers to participation
____ guidelines for the ICR
____ possible problems mentee may encounter
____ICR schedule

Within the first three weeks of the session, we discussed/completed the following:
____work on one or more measureable goals of the mentee
____ student retention strategies
____ test construction tips/strategies
____ classroom management issues (time management, discipline etc)
____ instructional techniques/strategies (handouts, overheads, special topics etc)
____ scheduled a visit to the mentee's class if needed

Within the fourth through sixth weeks, I
____ discussed mentee's classroom successes or difficulties
____ observed the mentee's class
____continued to work on items on the first three weeks' list

Within the last two weeks of the session, I
____ discussed plans for fall enrollment
____ completed this Mentor Checklist

Comments:

_____ _____
Mentor Signature Date

Once completed, return this form to the ISP Office

Checklist Deadline Data: August 20

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Appendix Z: Mentee Checklist (Sample)

Intensive Summer Program (ISP)
Texarkana College/TISD Adult Education

Please check each item completed during the mentoring process. Use the **Comments** section of the form for general remarks or for a brief explanation of why certain activities could not be completed. Please note that all aspects of this process are kept confidential. Thank you for the time and energy you spent with your mentor this semester.

Mentor's Name_____

As soon as possible after being assigned a mentor, I
____ contacted the mentor to exchange phone numbers, email information, office hours etc
____communicate in ways (in person, phone, email, mail) as we agreed
____ verified that I let my mentor know of any changes in contact information
____determine meetings times and length of meeting

Early in the session, I met with the mentor in person and discussed the following:
____ any barriers to my participation
____ guidelines for ICR
____ possible problems that I may encounter
____ICR schedule

Within the first three weeks of the session, we discussed/completed the following:
____work on one or more of my measureable goals
____ student retention strategies
____ test construction tips/strategies
____ classroom management issues (time management, discipline etc)
____ instructional techniques/strategies (handouts, overheads, special topics etc)
____ mentor class visit

Within the fourth through sixth weeks, I
____ discussed my classroom successes or difficulties
____ observed my class
____continued to work on items on the first three weeks' list

Within the last two weeks of the session, I
____ discussed plans for fall enrollment
____ completed this Mentee Checklist

Comments:

_____ _____
Mentee Signature Date

Once completed, return this form to the ISP Office

Checklist Deadline Date: August 20

Appendix AA: Types of Information Processing Strategies

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Types of Learning Strategies	Description	Example
Rehearsal and Mnemonic Learning Strategies	***Surface-level strategies used for memorization rather than deep-level information processing.***	***First-letter mnemonic method and simple repeating/reviewing.***
First-letter method	Using the first letter of each word in a list of items to make another word /acronym/sentence that is easy to remember.	Using "Roy G. Biv" as a cue to remember the colors of the visual light spectrum: red, orange, yellow, green, blue, indigo, and violet. PEMDASFLR to remember the algebraic order of operations (Parentheses, Exponents, Multiplication, Division, Addition, and Subtraction From Left to Right)
Repeating /reviewing	Repeating or reviewing a learning activity that was previously completed.	Rereading a section in your textbook that you had difficulty understanding. Repeating definitions of important words over and over again in order to remember them. Cycling through flash cards of math problems repeatedly. Reviewing class notes 24 hours after class as a way to slow forgetting.
Elaboration Learning Strategies	***Deep-level strategies used to understand, learn, remember, analyze, make connections between, apply, and elaborate on information.***	***Summarizing/paraphrasing, applying knowledge, perspective taking, comparing/contrasting ideas, generating and answering questions, visualizing/imagining, and teaching the material to someone else.***
Summarizing / Paraphrasing	Summarizing or paraphrasing information in your own words in order to learn it at a deeper level.	After reading each section of a chapter in your math textbook, summarizing that section in your own words. Paraphrasing a definition of a literary concept in your own words.
		Writing a paragraph summarizing the main points of your reading, writing, or math instructor's lesson. Writing a paragraph summarizing the sequential steps of a mechanical process that you are learning about in your heating, ventilation, and air conditioning (HVAC) course.

Types of Learning Strategies	Description	Example
Applying Knowledge	Applying the information, concepts, methods, and principles you are learning to a practice problem, real-life situation, or what you are learning in another course.	Using writing strategies you learned about in your writing course on a paper you are writing for another course. After learning about the scientific method, using it to solve a problem. After learning about how to graph equations, think of variables in real-life situations that could be graphed (e.g., if more exercise leads to less weight, how would that look in terms of an equation and graph?). Making connections between what you are learning in your economics course about supply and demand curves and what you are learning about graphing equations in your math course.
Perspective-taking	Taking the perspective of another person or group of people to gain insights and a deeper understanding of the information one is trying to learn.	In a literature course, taking the perspective of the author to gain insights about the author's intended meaning behind particular parts of the story, motivation for writing the text, and what affect he/she wanted to have on society through the text. As you learn about a new mathematical rule, take the perspective of the original discoverer of this rule to gain a deeper understanding about why he/she was interested in this rule and the importance this rule has for scientists, inventors, and the general public. As you read a historical text on the Europeans' discovery of the Americas, taking the perspective of both New World explorers and Native Americans when they first met in order to gain a deeper understanding of the issues they faced.
Generating and Answering Practice Problems	Generating practice problems for you to complete as a way to more effectively learn the material you are studying and prepare for future assignments and exams.	Generating possible test questions about the material you are reading and then trying to answer them. Creating practice mathematics word problems to solve on your own.

Types of Learning Strategies	Description	Example
Visualizing / Imagining	Creating visual images or imagining what the material you are studying would look like or how it would function.	Students interested in nursing could visualize the steps involved in taking a blood sample as a way to engrain these steps into their memory. Visualizing a problem in concrete terms (100 / 5 = 20 could be visualized as 100 apples in 5 boxes with 20 apples per box). Visualizing what different math equations would look like if they were graphed (e.g., y = x would have a straight line, y = x2 would have a curved line resembling the letter "U", and y = -x2 would have a curved line resembling a rainbow). As a way to more fully understand seasonal differences across the globe, visualizing the earth tilted on its axis and orbiting the sun.
Teaching the material to someone else (e.g., classmate, friend, family member)	Teaching or explaining to someone else what you are trying to learn.	As you're reading, periodically stopping to explain the material you are studying to a study partner, friend, or family member. Working in study groups and teaching different learning objectives for an upcoming exam to each other. Teaching to your daughter, son, or spouse what you are learning in your basic math course (e.g., addition, subtraction, multiplication, and division) or reading / writing course (e.g., sentence structure, verb conjugation, vocabulary, and critical reading and thinking strategies). Explaining to an instructor or teaching assistant your understanding of a concept, or, how you went about answering a homework problem.

Types of Learning Strategies	Description	Example
Organization Learning Strategies	***Deep-level strategies used to organize information into meaningful outlines, categories, hierarchies, sequential structures or other visual structures so that it can be visualized, learned and analyzed.***	***Creating outlines, concept maps, and concept matrixes.***
Creating outlines	Organizing material into a hierarchical structure and a logical flow using an outline structure (I. A. 1. b. etc.).	Making an outline of a chapter you are studying for an upcoming exam. I. Topic A. Main idea 1. Supporting detail 2. Supporting detail 3. Example B. Main idea 1. Supporting detail 2. Supporting detail 3. Example
Creating concept maps	Graphically representing the relationships among and between concepts.	Connecting concepts with arrowed lines and identifying those relationships with phrases such as: "results in", "contributes to", "decreases", "is a defining attribute of", and "is a sub-category of." As you are studying for an upcoming economics exam, graphically drawing relationships among concepts such as: interest rates, investment spending, production, supply, demand and unemployment.
Creating concept matrices	Graphically organizing information about related concepts into a matrix of rows and columns in order to learn and analyze concepts	Organizing the names of different math concepts down the first column, concept definitions down the second column, and example problems and solutions for each concept down the third column. Listing vocabulary words down the first column, parts of speech down the second, definitions down the third column, and examples of the vocabulary words used in a sentence down the fourth column. Organizing different philosophers' names (e.g., Hobbes and Locke) in the first column, the dates they were alive in the second column, their views on human nature in the third column, and an example of their ideas in the fourth column.

Note: This document is included in Appendix MM: Curriculum Frameworks for College Readiness Programs

Appendix BB: Sample Lesson Plan on Time Management

Teacher's Name: _____ **Subject:** College Culture – Time Management

College Prep **Week of:** Week 2

Text: "7 Steps to Better Management of Your Study Time" by Frank Christ
Handouts: "How Well Do You Plan?" inventory from Academic Skills Center, Dartmouth College
"The Master Schedule" from Academic Skills Center, Dartmouth College
"Time Management" calendar from Academic Skills Center, Dartmouth College
"Long Term Planner" calendar from Academic Skills Center, Dartmouth College

OBJECTIVE: Texas CCRS Cross-Disciplinary I. D (2)

INTRODUCTION/PURPOSE: Have students complete the "How Well Do You Plan" inventory. Ask the students how well they scored. Mention that time management is usually a big challenge. Adult college students have to juggle college with family and job responsibilities. Write these goals for this lesson on the whiteboard:

- Avoid wasting time—have a plan
- Avoid procrastination
- Have better study habits
    - Avoid cramming
    - Block time for review

PRESENTATION:
Ask students if they ever make "to do" lists; let students share what kinds of things might be on their lists. Discuss the difference between task importance and urgency. Explain that urgent items can't be delayed because of the time sensitivity…but depending on the importance of the task, it may not be necessary to spend a lot of time on it. Also, important but non-urgent tasks (like studying) will eventually become urgent (when there's a test) if ample time isn't allocated on a continual basis.

Ask students how much time they need to plan for studying outside class. Rule: 2 hours outside class for every hour in class. Draw Preview-Lecture-Review-Study model on whiteboard and discuss.

MODEL:
Demonstrate Dartmouth's Master Schedule concept. Demonstrate Dartmouth's Long Term Planner concept.

GUIDED PRACTICE:
Students complete their own Master Schedule and Long Term Planner in class.

INDEPENDENT PRACTICE:
Students continue to update their personal Master Schedule and Long Term Planner as events arise.

RE-TEACH
Students experiencing difficulties with time management may receive one-on-one assistance in utilizing the Master Schedule and Long Term Planner.

EVALUATION: Completion of an effective Master Schedule and Long Term Planner

CLOSURE:
Emphasize that time management is critical for anyone—but particular for adults because of family and job demands

Appendix CC: Sample Lesson Plan - College Knowledge, Financial Aid

Teacher's Name: _____ **Subject:** College Culture – Financial Aid

College Prep **Week of:** Week 3

Text: "How to Get Money for College" by Linda O'Brien; "Funding Your Education" by U.S. Department of Education

Handouts: Alamo Colleges Tuition Schedule, Pell Grant Schedule

Note: Timing of the Financial Aid lesson may be chanGED® to coincide with institutional financial aid deadlines.

OBJECTIVE: Texas CCRS Cross-Disciplinary I. B (1), II. C (2), II. E (1, 4)

INTRODUCTION/PURPOSE: Ask students if they have any family members in college now. If the students have any have kids in college, ask them to share their experiences with the financial aid process.

PRESENTATION:

Ask students: what expenses do students need to be prepared to pay while they are in college? List ideas on whiteboard. Add to the list and discuss any of these expenses that students don't mention: tuition, books (discuss book options such as renting, e-books, used books, Amazon.com), institutional fees (activity fee, health center, technology, labs, parking pass), transportation, living expenses

Explain financial aid equation: Need = Cost of program – Expected Family Contribution
Discuss these types of financial aid with the students: grants, scholarships, loans, work-study, tax credits
Discuss requirements for government financial aid: no felony or substance abuse, registered for Selective Service (males)

MODEL:

Hand out FAFSA worksheet—explain how to complete FAFSA online application
Post list of scholarship match websites on whiteboard – demonstrate how most popular ones work

---

GUIDED PRACTICE:

Students begin completing FAFSA worksheet
Students perform online scholarship searches, as time permits

---

INDEPENDENT PRACTICE:

Completion of FAFSA online
Completion of scholarship searches

RE-TEACH

Students experiencing difficulties completing financial aid application process will receive one-on-one assistance

---

EVALUATION:

Printout showing properly submitted financial aid application

---

CLOSURE:

Emphasize that timely application for financial aid will be critical to receive timely financial aid.

Appendix DD: Questions Asked by Current Student of Former Students

Please make a list of questions you have regarding college. We will be having students from prior ICR classes who will share with you their own college experiences. Here is a list of questions that you may find helpful as we begin that dialog. Feel free to add questions of your own.

CLASSES

- How many classes do you recommend for the first semester of college?
- What is the average number of students in each of your classes?
- What kind of classes have you had?
- How many is too many hours for classes? 15? 18?
- How did you cope with having to attend class every time?
- Was it what you expected?
- What problems have you had adjusting to classes?
- How was this program helpful to you? In what ways?

REGISTERING

- How easy is it to understand registration?
- When and how will you know when you are completely registered?
- What happens if you register late?
- Was registration hard?

ATTENDING

- Is college difficult? What can a person do to make college fun and easier?
- What is the policy regarding doctor's appointments, etc.?
- What is the best thing you can say about attending this program?
- Did you have any difficulties/problems?
- Is it hard to keep attending classes week after week?

BOOKS

- Did you always have to buy new books?
- Are they useful or complicated?
- Costs?
- Were the books difficult to read?
- Where did you find cheap books?
- What are costs of books? Of supplies?

WORKING

- I work 10 hours every day. Can I balance college and work?
- I work 3 to 11 every day. Is this reasonable and attending college?
- How did working part time affect your studies?
- How have you handled working?

FAMILY/SIGNIFICANT OTHERS

- How hard is it to make time for school [homework] with a family?
- How can I juggle family and work and school?
- How was family supportive?
- How have your relationships changed with your family and friends?
- Ever find it hard to balance work, family and friends and do they ever get angry?

MAKING FRIENDS

- Did you find it easy to form networking?
- Are friends important or do they side track your goals?
- Was It difficult to make friends?
- Should I keep to myself or should I make friends?
- Have you made friends with people to help you when you don't understand?

OTHER

- Where did you find tutors to help you?
- Can I get my homework done on my days off? Working full time

Appendix EE: Lesson Plan on Computer Skills (Word and Excel)

Instructor name
Contact phone #
Email address

Training Title or Topic	Word and Excel
Suggested # of contact hours	3

Lesson Rationale: This lesson will help students to gain confidence, introduce and/or refresh computer skills, techniques and terms that will be used during further education at ACC. This course will help students to know what to do to get the most out of the technology tools used at ACC focusing on Word and Excel.

Lesson Description: This course will be a general overview of Word and Excel basics to help further your education at ACC.

Learning Outcomes: The student will be able to edit a Word document following specific directions, then attach the document and email it to the professor. Students will be able to create a spreadsheet following instructions. The student will be familiar with school culture dealing with computer applications.

Assessment and Evaluation:

- Demonstrate ability to edit a Word document following specific directions, then attached document and email it to professor.
- Demonstrate ability to create a spreadsheet following instructions.

Lesson Outline

Part 1: Using Word

1. How to open document
2. Review file tab
    a. Save, New, Open, Save As…
3. Describe templates and how to use them
4. Explain tool bar
    a. Home
        i. Clipboard, Font, Paragraph, Styles, Editing, Proofing
    b. Insert
        i. Pages, Tables, Illustrations, Links, Header & Footer, Text, Symbols
    c. Page Layout
        i. Themes, Page Setup, Page Background, Paragraph, Arrange
    d. Mailings

Part 2: Excel Spreadsheet basics

1. Parts of a spreadsheet
2. How to add information
    a. Numbers, text…
    b. Formulas (why and how to use them)
3. How to Edit (change) information
4. Basic formatting
5. Saving and Naming tabs
6. Practice

Part 3: Assessment/Assignment

1. Demonstrate ability to edit a Word document following specific directions, then attach the document and email it to the professor.
2. Demonstrate ability to create a spreadsheet following instructions.

Section 4: Questions and Answer Session

Appendix FF: Mid-Program Student Survey

KILGORE COLLEGE
EMPHASIS EXCELLENCE ★ 1935

MID-PROGRAM STUDENT EVALUATION

INSTRUCTIONS: Please complete this evaluation. You DO NOT have to put your name on it. Your responses are very valuable to us. Completing this evaluation half-way through the program gives us an opportunity to improve program services for you and for future program students.

1. **Based on your experience so far, what are the positive features of the Intensive College Readiness Program?**

   _____
   _____
   _____
   _____
   _____

2. **List two or three things that have been especially beneficial for you. Explain.**

   _____
   _____
   _____
   _____
   _____

3. **Based on your experience so far, what changes would you make to the program to make it more successful?**

   _____
   _____
   _____
   _____
   _____

Appendix GG: Mid-Program Evaluation

Mid-Semester Evaluation
Fall 2013

We would like to have your feedback so that we can improve our program. Your response will be confidential. ***Feel free to add comments with each question****. Thank you!!*

Classes

MATH:
Please answer the following questions about the **MATH class and MATH teacher**.

1. My math instructor provides a stimulating learning environment; I feel as though I am learning a great deal about the subject of this class.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

2. My math instructor seems interested in the subject he/she teaches.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. My math instructor seems well informed about the subject taught.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. The instructor presents the information in an organized way that holds my attention.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. The math class is improving my math skills overall
   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. Compared with what I hope to get from this class, I feel I am getting:
   a. More than I expected
   b. About what I expected
   c. Less than I expected

Please explain your answer

7. Suggestions for the remainder of the semester for the math instructor and class:

ENGLISH

Please answer the following question(s) about the **ENGLISH class and English Teacher**.

1. My English instructor provides a stimulating learning environment; I feel as though I am learning a great deal about the subject of this class.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

2. My English instructor seems interested in the subject he/she teaches.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. My English instructor seems well informed about the subjects taught.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. The instructor presents the information in an organized way that held my attention.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. The English class helps improve my reading and writing skills overall.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. Compared with what I hoped to get from this class, I feel I am getting:
   a. More than I expected
   b. About what I expected
   c. Less than I expected

Please explain your answer

7. Suggestions for the future for the English instructor and class

Writing Tutoring

Please answer the following questions about the **Writing Tutoring**.

1. Did you attend the tutoring sessions offered?
   YES NO
   If no, why not?

2. The writing tutor provided a stimulating learning environment.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. The writing tutor seemed interested in the subject.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. My tutor seemed well informed about the subject taught.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. The tutor presented the information in an organized way that holds my attention.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. The tutoring improved my writing skills overall
   Strongly Agree Agree Neutral Disagree Strongly Disagree

7. Compared with what I hope to get from the writing tutoring, I feel I received:
   a. More than I expected
   b. About what I expected
   c. Less than I expected

Please explain your answer

8. Suggestions for the future for the writing tutor:

Study Skills Workshops

1. I felt the workshops were highly effective and helpful; I learned a great deal about how to study smarter.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

2. I enjoyed the studies skills workshop.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. My instructors incorporated into their classes the lessons learned in the SSW.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. I have the following suggestions for future topics and/or for improving the workshop:

5. I think the study skills workshop would work better scheduled throughout the semester (rather than as a full week at the beginning of the semester)
   Strongly Agree Agree Neutral Disagree Strongly Disagree

THE PROGRAM

Please answer the following questions about the **PROGRAM overall**:

1. Would you recommend this program to a friend?
   a. Yes
   b. Maybe
   c. No

Please explain your answer.

2. To prepare me for college, the number of hours of class per week are:
   a. Too many
   b. Just Enough
   c. Not enough

3. Were you informed of advising services?
   a. Yes
   b. No
   c. I don't know

4. I felt supported by the program coordinator:
   a. Always
   b. Most of the time
   c. Sometimes
   d. Rarely

Please explain your answer

5. The one-on-one conferences with the program coordinator were highly valuable and helpful to me.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. When entering the program, the program requirements were explained to me:
   a. Very thoroughly
   b. Somewhat thoroughly
   c. Not thoroughly at all

7. In helping me overcome obstacles to going to college, this program was:
   a. Very effective
   b. Somewhat effective
   c. Not effective

8. Overall, my experience of the program was:
   a. Very positive
   b. Somewhat positive
   c. Neutral
   d. Negative

9. If the program lost its grant funding and was forced to charge students tuition, what price do you feel students should pay? (In other words, how much would YOU have been willing/able to pay before joining the program?)
    a. $100
    b. $75
    c. $50
    d. 25
    e. Other $_____
    f. I would not pay for this program

Please explain your answer:

Books

Rate the books on the scale below (1=terrible, 5=ok, 10=excellent) and explain your rating.

Algebra
1 2 3 4 5 6 7 8 9 10

College Anthology
1 2 3 4 5 6 7 8 9 10

Achieve College Success (the purple book)
1 2 3 4 5 6 7 8 9 10

THEA Test Guide
1 2 3 4 5 6 7 8 9 10

Please comment below about anything else you would like us to know about, add to, or remove from the program, including services you would like offered.

THANK YOU for taking the time to fill out this evaluation

Appendix HH: Teacher Observation Log

Teacher Name: _____ Date: _____/_____/_____

Class / Site: _____ No. of Students: _____

Time	Group	Activity	Comments/Suggestions

Appendix II: Pre/Post Content Results for 5 IP-AES Programs in 2013-14

Table 1: Pre/Post TSIA Mean Score Results[1]

Program Site	Section	N	Pretest Mean	Posttest Mean	Sig ↑[2]	Effect size[3]
Austin Community College	Reading	51	350.5	353.6	**	0.14
	Math	50	328.8	335.4	**	0.28
	Writing-Mult. Ch.	50	356.3	358.4		0.02
	Writing-Essay	49	4.1	4.5	*	0.06
Blinn/ESC–Region 6	Reading	23	342.2	345.8	*	0.16
	Math	45	330.3	345.0	**	0.70
	Writing-Mult. Ch.	22	349.5	352.7		0.11
	Writing-Essay	19	3.5	4.4	**	0.46
Kilgore College–Longview	Reading	27	346.6	350.6	*	0.12
	Math	27	328.9	338.6	**	0.55
	Writing-Mult. Ch.	22	350.7	355.6	*	0.22
	Writing-Essay	11	4.7	6.0	*	0.42
Midland College	Reading	44	332.9	339.9	**	0.58
	Math	43	325.4	336.4	**	0.52
	Writing-Mult Ch.	42	339.1	344.3	**	0.24
	Writing-Essay	24	2.8	3.7	**	0.37
Tyler Jr College/ Lit Council of Tyler	Reading	24	342.0	347.8	**	0.42
	Math	31	324.7	334.9	**	0.59
	Writing-Mult. Ch.	23	349.8	353.0	*	0.14
	Writing-Essay	21	3.3	4.5	**	0.41

[1] TSIA scores were collected via a secure site from the College Board. Scores were analyzed in SAS with repeated measures ANOVA. This method is comparable to a dependent t-test because there were only two groups (pre- and posttest); SAS provides a measure of effect size with ANOVA that it does not provide for a t-test. Only students who completed both a pretest and a posttest were included in the analysis.

[2] Based on a one-tailed ANOVA test: * significant (p<.05); ** significant (p<.01)

[3] Effect represented by Omega squared (ω^2)

Appendix II (continued):

Table 2: Pre/Post TSIA College Readiness Benchmark Results[1]

Program Site	Section	N	No. Met Pretest CR Benchmark	% Met Pretest CR Benchmark	No. Met Posttest CR Benchmark	% Met Posttest CR Benchmark
Austin Community College	Reading	51	22	43%	27	53%
	Math	50	2	4%	8	16%
	Writing	50	26	52%	33	66%
Blinn/ESC–Region 6	Reading	23	0	0%	6	26%
	Math	45	0	0%	17	38%
	Writing	22	3	14%	12	55%
Kilgore College–Longview	Reading	27	10	37%	13	48%
	Math	27	2	7%	4	15%
	Writing	22	9	41%	10	45%
Midland College	Reading	44	8	18%	13	30%
	Math	43	3	7%	9	21%
	Writing	42	2	5%	8	19%
Tyler Jr College/ Lit Council of Tyler	Reading	24	1	4%	8	33%
	Math	31	1	3%	3	10%
	Writing	23	1	4%	13	57%
Total: All Programs	Reading	169	41	24%	67	40%
	Math	196	8	4%	41	21%
	Writing	159	41	26%	76	48%

[1] College readiness benchmarks for the TSIA are: 351 for reading; 350 for math; and for writing a combination of 5 on the essay and a 350 on the multiple choice or a 4 on essay and a 363 on the multiple choice. Only students who completed both a pretest and a posttest for a subject area section were included in the analysis.

Appendix JJ: Pre/Post LASSI Results for 3 IP-AES Programs in 2012-13

Pre/Post LASSI Results[1]

Program site	Category	Pretest Mean	Posttest Mean	Met 75th Percentile[2]	Sig ↑[3]	Effect size[4]
Alamo/ESC–Region 20/Seguin (*N* = 63)	ANX	53.3	64.5		**	0.19
	ATT	54.1	62.8		*	0.05
	CON	52.5	63.5		**	0.18
	INP	64.9	68.9			0.01
	MOT	51.8	61.8		**	0.09
	SFT	62.8	63.0			0.02
	SMI	51.8	63.1		**	0.14
	STA	66.6	73.0		*	0.06
	TMT	61.1	65.4			0.01
	TST	52.5	59.7		*	0.06
Austin Community College (*N* = 48)	ANX	45.5	67.2		**	0.46
	ATT	59.0	69.3		**	0.16
	CON	57.8	72.9		**	0.27
	INP	58.2	71.4		**	0.22
	MOT	58.0	67.9			0.12
	SFT	58.0	73.3		**	0.30
	SMI	44.3	64.2		**	0.34
	STA	63.2	77.0	yes	**	0.18
	TMT	62.3	74.5		**	0.20
	TST	49.2	65.3		**	0.30
Blinn/ESC–Region 6 (*N* = 39)	ANX	42.5	58.7		**	0.27
	ATT	54.9	65.1		*	0.09
	CON	52.0	66.4		**	0.19
	INP	66.5	74.0			0.05
	MOT	55.7	65.4			0.07
	SFT	56.4	65.8			0.06
	SMI	54.9	68.9		**	0.23
	STA	62.9	73.4		*	0.10
	TMT	54.6	65.9		**	0.17
	TST	47.0	62.6		**	0.21

Appendix KK: IPAES End of Program Student Survey (Selected Questions)

This program has helped me to: (check the best answer)	Strongly agree	Agree	Not Sure/Neutral	Disagree	Strongly disagree
1. improve my study skills.	☐	☐	☐	☐	☐
2. learn more about the academic support services (tutoring, math/ writing labs, etc.) available to me.	☐	☐	☐	☐	☐
3. learn more about financial aid (loans, grants, scholarships) available to me.	☐	☐	☐	☐	☐
4. define my career goals goals.	☐	☐	☐	☐	☐
5. understand how college will further my career goals.	☐	☐	☐	☐	☐
6. improve my writing skills.	☐	☐	☐	☐	☐
7. improve my mathematics skills.	☐	☐	☐	☐	☐
8. improve my reading skills.	☐	☐	☐	☐	☐
9. feel more confident about doing college work.	☐	☐	☐	☐	☐
10. feel more confident about attending college.	☐	☐	☐	☐	☐

1. **What did you like best about your experiences in this Program?**

2. **What did you like least about your experience in this Program?**

3. **Have your plans for completing college changed? Why or why not? Please explain.**

Appendix LL: IP-AES Follow-Up Survey

How would you describe your most recent enrollment at this college? □ Full-time □ Part-time

How many semesters have you completed at this college?
□ This is my first □ One semester □ Two semesters □ Three or more

Indicate which of the following are your reasons / goals for attending this college. Mark all that apply.
□ Complete a certificate program □ Obtain an associate degree
□ Transfer to a 4-year institution □ Obtain or update job-related skills
□ Self-improvement/personal enjoyment □ Change careers

Which Intensive Program did you attend?
□ Summer 2009 □ Summer 2010 □ Fall 2010 □ Summer 2011

1. In your experiences at this college during the most recent school year, about how often have you done each of the following?	Very Often	Often	Some times	Never
a. Asked questions in class or contributed to class discussions.				
b. Made a class presentation.				
c. Prepared two or more drafts of a paper or assignment before turning it in.				
d. Worked on a paper or project that required integrating ideas or information from various sources.				
e. Come to class without completing readings or assignments.				
f. Worked with other students on projects during class.				
g. Worked with classmates outside of class to prepare class assignments.				
h. Tutored or taught other students (paid or voluntary).				
i. Used the internet or instant messaging to work on an assignment.				
j. Used e-mail to communicate with an instructor.				
k. Talked about career plans with an instructor or advisor.				
l. Discussed grades or assignments with an instructor.				
m. Worked harder than you thought you could to meet an instructor's standards or expectation.				
n. Discussed ideas from your classes with others outside of class (students, family members, co-workers, etc.)				
o. Skipped class.				
2. How often have you used support services this semester?	Very Often	Often	Some times	Never
a. Academic advising/planning				
b. Career counseling				
c. Peer or other tutoring				
d. Skill labs (writing, math, etc.)				
e. Financial aid advising				
f. Computer lab				
g. Services to students with disabilities/special needs				
3. How supportive are others of your attendance at this college?	Very Much	Quite a Bit	Some what	Not very
a. Friends				
b. Family members				
c. Employers				

4. During the most recent school year, how much has your coursework at this college emphasized the following mental activities?	Very Much	Quite a bit	Some	Very Little
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form.				
b. Analyzing the basic elements of an idea, experience, or theory.				
c. Creating, combining and organizing ideas, information, or experiences in new ways.				
d. Making judgments about the value or soundness of information, arguments, or methods.				
e. Applying theories or concepts to practical problems or in new situations.				
f. Using information you have read or heard to perform a new skill.				
5. Attending IP helped me:	Very Much	Quite a Bit	Some what	Not very
a. develop effective study skills that I have used this semester.				
b. feel more confident about my skills.				
c. feel more confident about the subject matter.				
d. feel more confident about technology used in the classroom.				
e. build a group of friends who support me on campus.				
f. learn what support services are available to me on campus.				
	Very Often	Often	Some times	Never
6. I regularly see and recognize people from the college who presented in my IP class.				
7. I regularly see or meet with fellow IP students from my cohort.				
8. I regularly study with fellow IP students from my cohort.				
9. I have classes with fellow IP students from my cohort.				
10. The transition coordinator and/or instructor	Very Much	Quite a Bit	Some what	Not very
a. helped me know where to go and who to see.				
b. helped me complete my initial registration.				
c. helped me complete my initial FAFSA.				
d. helped me set my initial schedule.				
e. was available when I had questions.				
f. is still available when I have questions.				
Respond to the following: IP has made me a more successful college student because				

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Appendix MM: Curriculum Frameworks for College Readiness Programs

Executive Summary

The Texas Higher Education Coordinating Board (THECB), beginning in 2010, awarded grant funding to adult basic education programs to create and deliver Intensive Programs for Adult Education Students (IP-AES) for the purpose of preparing General Education Development (GED®) students for success in postsecondary academic and vocational education programs. In evaluating these IP-AES programs, THECB found that adult basic education programs need curriculum frameworks to assist practitioners in preparing their students for the next level of education. THECB awarded a contract to Texas State University-San Marcos to work with experts in the fields of integrated reading and writing, mathematics, and learning support to create curriculum frameworks for adult basic education providers to use as exemplars for basic skills instruction for GED® students.

This document, composed of three sections on integrated reading and writing, mathematics, and learning frameworks, is intended for the use of adult education practitioners whose job is to prepare GED® recipients for entry into postsecondary education programs. Each framework contains an introduction to the document, supporting research, an overview of best practices in instruction, and examples of syllabi or curriculum suggestions for use in the preparatory courses.

Curriculum Frameworks for College Readiness Programs Serving Adult Education Students

The past decade has brought increased focus on aligning adult education and postsecondary education systems to facilitate the transition of adult learners into postsecondary vocational and academic programs. Nationally, as well as in Texas, there continues to be a need for adult education programs to address workforce and college readiness as part of their primary mission. In spite of this need for preparing adult learners for postsecondary education, few General Education Development (GED®) recipients go on to enroll in postsecondary education (Tyler, 2001). Among GED® graduates who do enter postsecondary education, the majority dropout within the first year they are enrolled, and few attain a degree or credential. Research indicates that "…educational programs need to provide ample supports, advising, and clear career road maps to help students continue to make their way to and from and back again to educational opportunities in order to continue to advance their earnings over time" (Nellie Mae Education Foundation, 2008, p.2). If adult learners are to make a successful transition to postsecondary vocational or academic programs, adult basic education (ABE) programs recognize that they must reassess traditional practices of preparing GED® students to "pass the test," and redirect efforts to prepare GED® students for the next level of education.

Curriculum Frameworks

The term *curriculum frameworks* originates in the K-12 literature from the 1990s during the outcomes-based education reform movement, and it became synonymous with learning outcomes anchored in approved content standards. Curriculum frameworks are intended to set out the content and skills standards that all students should achieve in a course of study. Adult education, unlike its K-12 counterpart, has traditionally been more skills focused and less prescriptive about the content that is taught. Texas adult education program providers look to the Texas Adult Education Content Standards and Benchmarks for ABE/ASE and ESL Learners (TAESB) (2008) for guidance on which skills and content to teach at each level of instruction from beginning ABE literacy through high adult secondary education and are tied to the six National Reporting System (NRS) levels. While the TAESB are specific about the exit performance required for each ABE/ASE and ESL level, they do not address the entry knowledge and skills required for adult students who enter postsecondary education. The curriculum frameworks in this document provide a model for educators to use to construct lessons for use with students making that transition from ABE/ASE and ESL into postsecondary.

College Readiness Curriculum Frameworks in Integrated Reading and Writing, Mathematics, and Learning Support

The curriculum framework initiative evolved from a Texas State University collaboration among the THECB-sponsored IP-AES evaluation project (housed in the Department of Mathematics, College of Science), the THECB-sponsored Transition Project (housed in The Education Institute, College of Education), and the Developmental Education Doctoral Program (Department of Curriculum and Instruction, College of Education). The curriculum frameworks for integrated reading and writing, mathematics, and learning support are the result of that collaboration and are written as a response to needs expressed by IP-AES grantees for examples of curriculum frameworks models.

The three curriculum framework documents that follow are intended to be used by ABE practitioners and program planners as exemplars of integrated reading and writing, mathematics, and learning support instruction. The three frameworks, although each is unique in format and approach, offer the field a research-based model of an approach to the three areas. The IRW and learning frameworks sections include a syllabus, the mathematics section includes suggestions for developing curriculum, and each contains a substantial bibliography of sources. The IRW framework (Section I) was developed by Eric Paulson, Professor of Developmental Education and Director of the Doctoral Program in Developmental Education and Associate Dean of the Graduate College at Texas State University. The mathematics framework (Section II) was developed by Selina V. Mireles, Professor of Mathematics Education and Associate Dean, Department of Curriculum and Pedagogy, Texas A&M International University (formerly, Professor of Mathematics Education at Texas State University), and the learning support framework (Section III) was developed by Taylor Acee, Assistant Professor of Developmental Education at Texas State University and Claire Ellen Weinstein, Professor of Educational Psychology at the University of Texas at Austin. The three documents represent, for the field of adult basic education, practical as well as research-based approaches to preparing GED® students for the rigors of competing in postsecondary education programs.

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References

Nellie Mae Education Foundation. (2008, May). *Transition to college and careers pilot project.* Grant publication. Retrieved from http://www.nmefdn.org/uploads/TCC_RFP/Transtion20to20College20and20Careers%20RFP.pdf

Texas Adult Education Standards and Benchmarks for ABE/ASE and ESL Learners. (2008). Austin: Texas Education Agency.

Texas College and Career Readiness Standards. (2008). Austin: The Texas Higher Education Coordinating Board.

Tyler, J. (2001). *So you want a GED®? Estimating the impact of the GED® on the earnings of drop outs*. Boston. National Center for the Study of Adult Learning and Literacy.

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Section I

Components of an Integrated Reading & Writing Course

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Section I
Components of an Integrated Reading & Writing Course

The purpose of this document is to describe the major components of an Integrated Reading & Writing (IRW) course. It can also be used as a description of the major components to focus on when integrating reading and writing within a broader student success course. The document has the following elements:

- Overview
  - Perspectives
  - Reading and Writing Connections in the College and Career Readiness Standards
- Components of Integrated Reading & Writing
  - Central Course Theme
    - Example
    - Questions to Guide Curriculum Planning
  - Recursive Curricular Process
    - Example
    - Questions to Guide Curriculum Planning
  - Viewing All Texts from Both a Reader's and a Writer's Perspective
    - Example
    - Questions to Guide Curriculum Planning
  - Writing Assignments: Essays
    - Example
    - Questions to Guide Curriculum Planning
  - Continuous Reading and Writing Activities
    - Example
    - Questions to Guide Curriculum Planning
  - Summary Writing
    - Example
    - Questions to Guide Curriculum Planning
  - Peer Review
    - Example
    - Questions to Guide Curriculum Planning
  - In-Class Work Structure: Think-Pair-Share
    - Example
    - Questions to Guide Curriculum Planning
  - Metacognition
    - Example
    - Questions to Guide Curriculum Planning
- References and Bibliography: Integrated Reading and Writing
- Appendices:
  - Map of Integrated Reading and Writing in the CCRS
  - Example of an Integrated Reading and Writing Class Sequence

Each aspect of the document supports the other aspects, none of which are designed to stand alone.

Overview

Transitioning students toward college involves understanding "what students must know and be able to do to succeed in entry-level courses offered at institutions of higher education" (CCRS, 2009, p. V). For the English Language Arts in Texas, this knowledge and these abilities are described in the College and Career Readiness Standards (CCRS). Programs that focus on transitions to higher education, where greater control of these components of the language arts is crucial, can benefit from adopting an integrated reading and writing focus as part of their course delivery structure.

Integrating reading and writing in a course structure allows the adoption of a holistic approach to literacy education. This approach foregrounds the interconnected nature of reading and writing processes and works to make those connections explicit for instructional purposes. An IRW approach involves continuous reading and writing on a wide variety of texts throughout the instructional period, both on a daily class scale and on an overall course term scale. There are specific and deliberate ways to achieve this within a course, which this framework will discuss. However, truly integrating reading and writing in a way that will strengthen students' proficiencies in both involves more than following a syllabus. It begins with understanding the purposes of such an approach. As Purcell-Gates (1997) noted,

> As teachers it is critical that we identify our assumptions and beliefs—and many of them may be quite implicit—about what it is we are trying to help our students do: what process we assume is the process these students are trying to master. With our own process models made explicit, we can better choose materials, activities, instructional procedures, and assessments that serve to foster this mastery. (para 28)

In other words, unless we as instructors explore and explain our own understandings of what it means to read and write, it is unlikely that we can expect consistency and effectiveness in our teaching. In terms of IRW, it is useful to move away from a default perspective of reading and writing which assumes that "writing is productive, reading is receptive" and toward a perspective that views *both* reading and writing as meaning-making processes. Thinking about reading processes through common writing processes, as Tierney and Pearson (1984) did, is one way to discover that relationship. For example, it is often clear to instructors and students that when we write, we use the process of revision constantly. We begin a draft, we erase some of what we've written in order to make it more coherent and clearer to our audience, change some wording, and take many other actions while revising. While that process is well-understood in terms of writing, it is clear that a similar process takes place during reading; that is, we also revise when we read. Think about a time that you read a short story with a twist at the end, which caused you to rethink some of your interpretations of aspects of earlier parts of the text—when that happens, you are revising your reading, similar to how you would revise your writing. With writing, revision is obvious because we can see the physical evidence of that revision: changes to our draft. With reading, it is not quite as obvious, because the revisions take place in our head instead of on a paper. But it is still a revising process. The point is that both writing and reading are active processes, with real process links that connect the two. As instructors, we need to make those connections explicit for our students. Key to an IRW approach is that everything that you do in class should have a reading action *and* a writing action, and that students view all texts from the perspective of a reader *and* a writer.

The Texas College and Career Standards carefully delineate reading and writing standards that students who are beginning college should be transitioning toward. Because these standards are presented as either reading or writing standards—that is, not as integrated standards—instructors must be ready to make those integrated connections themselves. The relationship between reading

and writing in the CCRS can be understood in terms of the implicit connections between the descriptions of the reading standards and writing standards.

One way to make these connections is to take one of the reading or writing standards, break it down to its component parts, and connect it to either a reading or a writing standard. For example, Writing Standard A.3 is "*Evaluate relevance, quality, sufficiency, and depth of preliminary ideas and information, organize material generated, and formulate a thesis*." Each of those component parts of that Writing Standard—*evaluate relevance*, *organize material*, etc.—can be connected to a Reading Standard. See Figure 1 below:

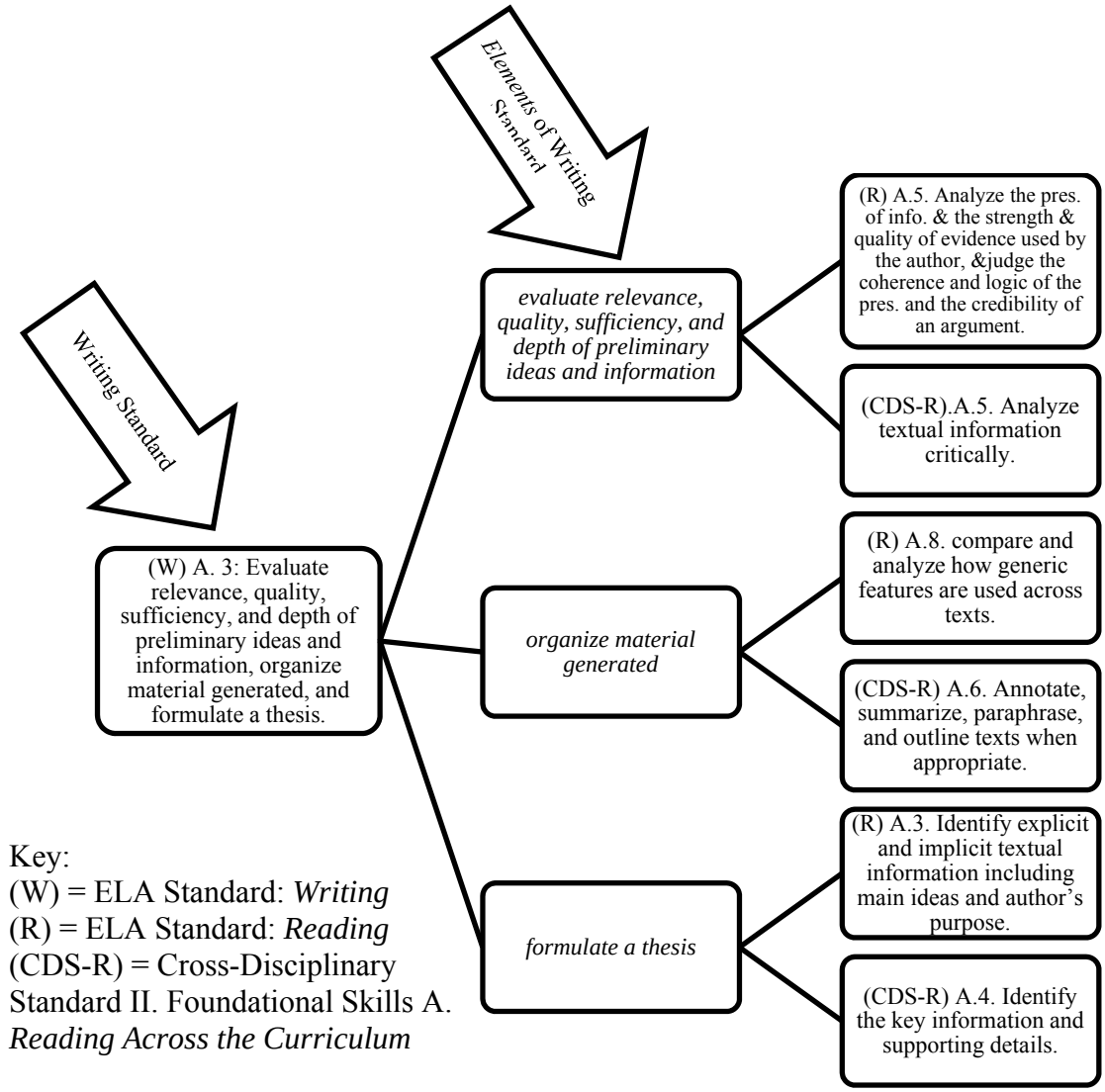

Figure 1: Example of CCRS Writing Standard and Reading Standard Connections

The purpose in articulating these connections is to view all activities from both a reading and a writing perspective; understanding how the reading and writing standards in the CCRS are connected is an important part of that perspective. These connections should be made explicit in the classroom, so that students' awareness of the connections between reading and writing is at a high level. Section I Appendix A provides a complete analysis of the connections between the Reading Standards and

Writing Standards (and reading/writing related Cross-Disciplinary Standards) from the CCRS. Making explicit connections from these to the activities and goals in your course is important.

For example, student work on thesis sentences has both reading and writing processes and outcomes involved, and has support in viewing the CCRS from an integrated viewpoint. Writing Standard A3, Reading Standard A3, and Cross-Disciplinary Standard II A4 all intersect at points that support work on thesis sentences. Integrating these standards allows a holistic approach where students, as they are working on writing their own thesis sentences for their written assignments, are guided toward identifying thesis sentences in course readings, which helps them understand the purpose of their own thesis sentences, which in turn helps them better understand how a text is related to a thesis sentence in general.

When thinking about different reading and writing strategies that can target a set of integrated CCRS standards, it is helpful to remember that every strategy can—and should—be used as a writing tool *and* as a reading tool. One way to think about this is that every reading instructor, and every writing instructor, usually have their own favorite strategies or activities that they have used successfully in their own reading or writing class. The idea here is not to think about starting to build a repertoire of integrated reading and writing strategies from scratch, but rather to turn your favorite reading strategy into a writing strategy, and your favorite writing activity into a reading activity. With faculty work groups, you might ask yourself and your colleagues about the reading and writing strategies they already use in class. After you identify those, consider with your colleagues how you could use those same reading class strategies in a writing class, and vice-versa. Focus on how those writing strategies and reading strategies can contribute to your students' understandings of how reading and writing work together to increase academic literacy proficiencies, and how they can go about adapting those strategies to be used as tools in future classes.

In the next segment, major components of IRW approaches are presented.

Components of Integrated Reading & Writing

In general, Integrated Reading & Writing approaches to postsecondary literacy instruction foreground the importance of metacognitive reflection with recursive curricula that views all classroom activity as involving continuous reading and writing on all the texts available to, and produced by, students in the class. Below, those components are described, and an example of each is provided, along with questions to consider when planning curriculum. These descriptions and examples connect to the example weekly sequence presented at the end of the section. As with any curriculum framework, there is no explicit "step 1" and "step 2" type organization here; the descriptions are narrative explanations so as to allow their adaptation to your own context. The components vary in scale and are included here to inform your decisions about your overall curriculum framework.

Central Course Theme

Course themes are powerful tools for linking reading and writing in authentic ways. The course theme can be virtually any topic or issue that is open for discussion and has text resources the class can draw from. Themes should be general enough that students have some life experiences that relate to the theme, but not so general that it becomes impossible to meaningfully focus readings and discussions on that theme throughout the course. Course text choices revolve around the theme, as do course discussions and writing assignments. The theme gives the class a reason and a purpose to the communication students undertake and the language they use when reading and writing in the class. Centering the course around a theme helps the course activities avoid being perceived as a set of discrete skills introduced out of context.

Example of course theme. This description will use as an example an integrated reading and writing course built around the theme of "Learning from Mistakes." (*Note that your course theme should be highly relevant to your students' interests, goals, and backgrounds. The example used here is meant not as a singular recommendation, but rather as an example around which to structure the course description.*) The instructor plans and provides core texts for the course. These texts should vary in genre; for example, with the "Learning from Mistakes" theme a set of course texts might include a combination of fiction with a learning focus, non-fiction memoirs of learning and development, a short novel with elements that focus on learning, textbook excerpts on how learning happens and so on. The exact texts depend on the context of the course and instructor's goals for the course, the students' needs and interests, and other factors. The texts with the "Learning from Mistakes" theme could include short stories by Sandra Cisneros (*House on Mango Street*), a chapter from an expository book on learning, like "Learning From Mistakes is Overrated" in the book *Rework* by Jason Fried and David Heinemeier, articles from some online sources like *Learning from Brilliant Mistakes*, by Peter Cohan or *Better by Mistake: The Unexpected Benefits of Being Wrong* by Alina Tugend, and a short novel like *The Body* by Stephen King (the basis for the movie *Stand By Me*). In addition, it is very useful to include a writing mechanics reference text, like *A Writer's Reference with Resources for Multilingual Writers and ESL* by Diana Hacker and Nancy Sommers.

In general, a theme that draws from students' own backgrounds and relates to students' goals is recommended because of the need to immediately bring students' knowledge of themselves and their background into the course—this is important because it allows writing to begin from a topic the student is familiar with. "Learning from Mistakes" can have a number of interpretations and the instructor is encouraged to help students brainstorm what it means for their writing assignment—many students will gravitate toward whether learning from one's mistakes is useful or not, and many of the texts noted above deal with similar topics. One general approach is for students to reflect on their own learning experiences and use that as a touchstone as they work through course readings and class discussions.

General questions to ask about course themes while planning curriculum. *What will the course theme be? What are the interests, backgrounds, and goals of your students? Are there texts that speak to that theme? Is it of use for students' academic lives as well as bringing in their background experiences in a way that is useful? Does the theme have relevance for students' job and career experiences and goals? Is the theme general enough that students will be able to work within it but still specific enough that they can focus their work in a particular way?*

Recursive Curricular Process

A recursive curricular process means that each text that students are exposed to, and each writing assignment that students do, is used again in some form in another assignment students do later in the course. For example, students read a text and then write about that text later; they use course writings that were authored by their classmates earlier in the course as source texts for their own subsequent class assignments they will write later in the course, and so on. Because the course is centered on a central theme (see above), reading and writing all take place within a shared context, and are linked through that course theme.

Students use their and their classmates' written assignments as readings for their own subsequent written assignments, student summaries of course readings are used as source texts for other written assignments and discussions, and so on—in general, every assignment in the class is used in part for at least one more assignment. Using students' writing as source texts that other students read for their own subsequent writing assignments—in a safe and supportive classroom environment—creates an authentic writing environment with a real audience and genuine purpose.

Example of recursive curricular process. The *Choice Texts* assignment is an example of this recursive curricular process. In the *Choice Texts* assignment, the instructor provides about six to eight different short texts from which students will be able to choose for two different rounds of this assignment. For Round 1, students choose one of the texts by looking over the texts and deciding which one is interesting and useful to them. Then, they form small groups for reading and discussion, based on which text they each chose. Next, they write summaries of that text (see below for a description of a summary assignment). Then, a couple weeks later, the class does Round 2 of this assignment. For Round 2, it is the same assignment with the same group of texts to choose from, and students must choose a different text than they used for Round 1. However, this time in order to choose which text they want to read, they must read their *classmates' summaries* of the choice texts from Round 1, and make their decisions based on that information. So the summaries that students wrote for Round 1 have an actual, authentic use, since their classmates will be reading those summaries to choose which text they would like to read for Round 2 of the assignment.

General questions to ask while planning recursive aspects of the curriculum. *How many reading and writing assignments will be used in the course? Which type of writing assignment—short personal essays, factual expository or descriptive assignments, and so on— will be used, and that will also be aligned with your student population's needs and backgrounds? How will the assignments be spaced out? What are the goals of each reading and writing assignment, and how do they work together to achieve other goals? How will the writing assignments relate to the reading assignments and other writing assignments, and how will the writing assignments segue into each other?*

Viewing all Texts from Both a Reader's and a Writer's Perspective

Throughout an integrated reading and writing course, all the texts are viewed from the perspective of a reader and from the perspective of a writer. What this means is that the course texts are viewed not just as something to comprehend, but also something to continue writing within, in a way. And the students' own texts that they are writing are viewed not just as drafts they are writing but also as source texts for reading for other purposes in the class. All texts are used more than one time, for more than one purpose; for example, instead of limiting the focus on a particular reading assignment to a single discussion or quiz on a single day, in an integrated reading and writing course that reading assignment will be used for several different purposes throughout the course.

Example of viewing texts both as a reader and as a writing. For course readings, working within the author's already published work allows students to investigate the writing choices the author made, and to build their own writing proficiencies using an authentic text. "Working within a published text" means to deliberately employ writing activities focused on a text that is already a finished and published product. If there is a mechanical aspect of writing—like a specific grammar point—that needs to be focused on by the class, it can be useful to focus on that point through a text that the students are already reading in class. This can be done by selecting an excerpt from that text and focusing on that excerpt as if it were a writing assignment. For example, if the grammar point the class needed to focus on was definite and indefinite articles, a selection from the text students are reading—for this example, King's *The Body*—could be chosen and photocopied, and each definite/ indefinite article blanked out, to construct a cloze activity that would then be distributed to students in class. The result could look something like the figure below:

Students: In this passage from the chapter we read last week, I have "blanked out" all of the articles—a, an, and the—throughout the passage. Read the paragraph below, and add those articles back in. After you have done a few, work with a partner on a few, and talk about your choices. We'll work on them as a class after that (and maybe look back at the chapter to see how the author did it!). Once we finish our class discussion on article use, then we'll turn to your own papers and work on your article use in your own writing.

"There were other questions of some moment. Was he (1) _____ fast eater who slowed down or (2) _____ slow eater who started to speed up as things got serious or just (3) _____ good steady all-around trencherman? How many hotdogs could he put away while watching (4) _____ Babe Ruth League game down at (5) _____ St. Dom's baseball field? Was he much of (6) _____ beer drinker, and, if so, how many bottles did he usually put away in (7) _____ course of (8) _____ evening? Was he (9) _____ belcher? It was believed that (10) _____ good belcher was (11) _____ bit tougher to beat over (12) _____ long haul." (passage is from King, 1982, pp. 377-378)

Figure 2: Example of Working Within a Published Text

Following a general "think-pair-share" process, students would work to complete the passage by adding the appropriate article (a, an, or the) in each blank, and discussing why that was the appropriate article. Following the class discussion on this activity, students would then immediately turn their attention to their own in-process writing assignments and examine their own article usage. Working within an author's already-published text on mechanical issues in this way allows students to work together on a text they have a common experience with, and it avoids having to begin all "correction" type activity on their own papers first. Importantly, working within an author's already published text imbues the reading of that text with a strong writing element as well.

Similarly, for student writings—like student classroom/homework assignments—it is important to view them not only as writing assignments but also as reading assignments. This provides an authenticity to the purpose of writing the text, which can be missing from some class assignments. In this approach, students would use each other's papers as source material for their own subsequent classroom writings, as was described above with the "Choice Text" assignment.

General questions to ask about viewing texts as a reader and as a writer while planning curriculum. *Are you able to build in time to look at each text from a reading perspective and from a writing perspective? How will you plan to talk about reading and writing with your students, and to keep a running dialogue about reading and writing perspectives? Which parts of which published texts will you use to focus on mechanical aspects of writing?*

Writing Assignments: Essays

Depending on the length of the course, there may be 1-3 key essay assignments. (Note that the writing assignments should reflect your course and students' needs, backgrounds, and goals—the assignments could be short personal essays, factual expository or descriptive assignments, and so on—the example here of a personal narrative is used in order to have a specific assignment around which to structure this course description.) From an IRW perspective, a crucial part of the structure of these essay assignments are that they are interrelated and students are able to see and use the connections between the essays. One way of interrelating two essays that has been successful in IRW courses has been to use Essay #1 as a source text in the writing of Essay #2. That is, students follow a typical essay-writing process to generate Essay #1, and once that is complete, that essay becomes a

course text—much like the other course texts that the instructor provides (like a news magazine article, a book chapter, etc.). When students work on their second essay—Essay #2—they are able to use their classmates' first essays as source texts for their essay in the same way they are able to use other course texts as sources. This creates an authenticity to the writing assignments usually missing when reading and writing are taught separately, and when the essays are not interrelated.

Several supporting activities center around the writing of both essays. For example, summaries are written for each of the source texts that students will use en route to writing their essays, and each summary is peer-reviewed by students to further advance their writing proficiencies. A focus on the mechanics of writing and sentence-level writing activities can center around these larger writing assignments. Conceptualizing each major writing assignment as the center of a variety of linked reading and writing activities is important, as is discussed in the next section.

Example of essay assignments. The first writing assignment (termed "Essay #1" here) in this example would be a personal narrative that relates to the course theme of "learning from mistakes," and the purpose is to construct a first, narrative, writing assignment from a position of knowledge on the part of the student. For the second writing assignment (termed "Essay #2" here), students write a comparison/contrast essay that compares one of their classmates' narratives—the classmates' Essay #1—with one of the course texts that center on the topic of "learning from mistakes". The essay can focus on similarities, differences, or both. In this way, each student's completed Essay #1 can used as a source text for the writing that students will do for Essay #2 (this is also an element of the recursive curricular approach, since students are using their classmates' writing as source texts for their own writing assignments).

General questions to ask about essay assignments while planning curriculum. *Do your essay assignments reflect the theme of the course? Do they appropriately draw from the course texts? Do the different essay assignments build on each other? Is one essay able to be used as a source text for another? How many essay assignments are you able to build into your course term (this will vary widely depending on how the term is structured)? How far apart will you space your essay assignments, so as to ensure that you have adequate time for students to brainstorm, draft, peer review, and revise their essays?*

Continuous Reading and Writing Activities

While an important part of the recursive nature of an integrated reading and writing course is the relationship between writing assignments like Essay #1 and Essay #2, there is also a great deal of reading and writing that surrounds each of those major assignments. This ongoing combination of reading and writing that permeates all assignments is the essence of an integrated approach. For example, an assignment of reading a chapter from a course novel often culminates in discussions of that chapter, and typical writing outcomes include things like journal entries that provide students a route to responding to the text, a focus on the mechanics of writing linked to the text students are reading, and work on a variety of other aspects of reading and writing, at every level: from the whole text level down to the word level. In an integrated reading and writing context, it is important to incorporate writing goals that include not just of response, but also increasing writing proficiencies. This can take the shape of writing within a text—creating a cloze activity from the text itself that focuses on an aspect of grammar, or a focus on vocabulary and how it changes the tone of a sentence (an example of this is provided above, with the cloze activity on definite and indefinite article usage).

Example of continuous reading and writing: reflective journals. Reflective journals are less-structured, narrative writing that students do on a regular basis to respond to, reflect on, think about, and otherwise consider aspects of reading and writing, especially as it relates to specific texts they are

reading in class. Depending on the course schedule of a particular class structure, they can be assigned on a daily, every-other-day, or weekly basis. The instructor can assign a page or number length, or even just an amount of time to write for each journal entry. Entries can be based on student choice about what to write about, or on specific questions or topics chosen by the instructor. In other words, this assignment is wide open in terms of how it can be used in a particular class. Below are some potential areas to write about that instructors can provide students (see Henry, 1995):

Potential General Topics for Students' Reflective Journals

- Pace: Did you skim, skip, slow down, regress, speed up, look ahead? Why? When? To what effect?
- Rereading: Did you reread parts of the text? What differences did you note a second time through?
- Planning: Do you anticipate reading a particular book, author, or genre? What are your predictions about what you'll find?
- Revising: Did you consider other ways an author might have written?
- Connecting: did you relate a book to another book? To a poem or a song? To your experiences or feelings? To a class lecture or assignment?
- Predicting: Did you imagine what would happen next? Was the guess confirmed? Why or why not?
- Analyzing: What did you think the book was about? What was the author's purpose in writing the text?
- Difficulty: What makes a text a challenge? What do you do when a text is difficult?
- Background information: If you had known more about the topic, would the text have been easier to read, more enjoyable, both, neither? What can you do to build your background knowledge?
- Unknown vocabulary: What did you, the reader, do when you came to an unfamiliar word?

Figure 3: Potential Topics for Reflective Journals

General questions to ask about reflective journals while planning curriculum. *In what ways will you fully utilize course readings and student writings to achieve reading and writing goals? Is it better to focus on a single text for several days or several texts for a single day? How can a course text be used to increase writing ability, and how can a student's written essay be used to increase reading comprehension? How can you make connections between the different texts throughout the class? In what ways will you encourage students to view all texts as connected in various ways, including combinations of content, genre, syntax, literary elements, goals, and tools?*

Summary Writing

Summarizing text is a key reading strategy and has a solid evidence-based foundation supporting it (Simpson & Nist, 2000). Students must locate central themes in a text, identify key support for those themes, and be able to explain those overriding textual ideas in a concise format. As noted above, while this strategy has primarily been associated with reading approaches, it lends itself well to an integrated reading and writing approach and can be used for a variety of purposes.

Example of summary assignment: There is a wide variety of ways to structure a summary assignment. What follows are a set of guidelines for students that have been used in college contexts:

Overview of Summary Assignment Directions for Students:

When writing a summary, follow these general guidelines:

- Use a powerful topic/lead sentence. State the author's name, section/chapter of the textbook, textbook name, and main idea of that section in the first sentence. For example, "In chapter ____ of _____, author _____ argues that _____." OR, for narratives: "In (story title), author _____ writes about (overview of story)" This allows you later, at a glance, to know exactly what you summarized.
- Use key ideas. You should only use supporting details if the key ideas cannot be understood without them. The point is not to rewrite the section, but to distill it down.
- Give the summary body a logical progression. The body of the summary should flow together, use transitions where appropriate, and have a logical sequence of order.
- Use only the author's ideas. A summary is not the place for your opinions of the information, it is a restating of the author's main points.
- Use your own words. Restating what you find in the text is a good way to make sure you understand what you are reading and that you remember it.
- Summaries are short: between 100-150 words. Work to condense the information you need to communicate in the most efficient way.
- Give your summary a title. The title should not be exactly the same as the title of the text you are summarizing, but it should still give information about which text you are summarizing.

Figure 4: Example of Summary Assignment Directions

General questions to ask about summary writing while planning curriculum. *Which texts will you assign students to summarize? How many summary assignments will you include over the course of the term? Once students have completed a summary, what do they "do" with that summary; that is, how is it used? Are the summaries able to be approached from both a reading and a writing perspective, and able to be utilized in the class in both ways?*

Peer Review

It is important to include students in the formative assessment of their and their classmates' work for a variety of reasons. One important reason involves the IRW component of recursive curriculum (see description above), since incorporating peer review as a regular part of the course involves continuous "looping back" work on in-progress assignments as a way to move forward in increasing students' writing proficiencies. Another reason involves the IRW component of viewing all texts from a reader's and a writer's perspective. When students view their writing not just as something they are working on but also as something that a classmate can read, gain knowledge from, and aid in its development, a strong element of authorial identity is supported. In addition, students can make substantial gains in their own writing proficiency by providing feedback to other writers.

Example of peer review. There are a wide variety of texts that describe methods for peer review in the college classroom (e.g., Armstrong & Paulson, 2008; Dossin, 2003; Paton, 2002). Most methods revolve around a structure designed to help the student reviewer provide quality feedback to the student writer, both holistic and in terms of surface-level issues. Figure 5, below, is an example of a peer review process for a summary assignment:

Example Guide for Peer Review of Summary Assignments

NAME of *PEER REVIEWER*:_____

NAME of *SUMMARY AUTHOR*:_____

- In summary writing, a strong lead sentence guides the reader into understanding the overriding idea of the text that is being summarized. Check to see that the lead sentence has the following three pieces of information:
    - Name of the text author
    - Name of the text
    - A sum-up of the main points of the text; the overriding idea
- The rest of an academic summary contains *only* the main idea(s) of the text. There are *no* details included unless they are required to understand the main idea(s).
    - List the main ideas in the summary you are reviewing here:
    - Are there any details that seem unnecessary? List them here:
- An academic summary does not contain the summary writer's opinion. It is different than a journal or reader's response to a text in that in a summary, it is the text author's ideas being reported. List any opinions in the summary here:
- On the summary paper itself, highlight any areas that may involve surface level issues of grammar, spelling, awkward or unclear sentences, or other areas you would like the summary author to work on. Make sure to discuss those areas in writing or verbally with the summary author.
- Below, list any advice you have for the author of the summary. There are some guiding questions that may help structure that advice.
    a) Does this paper have a strong lead sentence? If the answer is yes, identify main point the author provides. If the answer is no, what could the writer do to make the lead sentence stronger? Be as specific as possible.
    b) Does this paper include only the main ideas? Does it include all the main ideas or is an idea(s) missing? If so, explain what idea(s) you think are missing.
    c) Are there "extra" details in this summary? If so, what details could be excluded?

Figure 5: Example Peer Review Guide Summary Assignments

Note that the peer review guide is explicitly focused on the specific summary assignment it is aimed at—it is not a generic guide. The same model can be adapted and followed for other writing assignments as well, by focusing elements of the peer review guide on aspects of the writing assignment. All major essays should have at least one round of peer review, and should have a peer-

review guide constructed that relates to the different elements of that assignment. This approach supports students' work to provide high quality, focused peer review feedback to their classmates.

General questions to ask about peer review while planning curriculum. *What are your goals for peer review? When will students peer review each other's work, and how much time will you allocate during a class meeting to peer review? Into which written assignments will you incorporate peer review? How will you monitor that both the author and the peer reviewer are benefiting from this activity?*

In-Class Work Structure: Think-Pair-Share

Adapting the "think-pair-share" (Lyman, 1981) type idea to postsecondary classroom work is a useful general approach to structuring short activities in the classroom. With any work assigned to students in class that you would like to have culminate in a whole class discussion, using a version of think-pair-share allows a gradual progression of individual thought to pair or small group work to whole class work. Students first work on their own, then with a partner or two partners, and then as a whole class; this general progression is useful for structuring many aspects of classroom work.

Example of a think-pair-share type progression. As an illustration, consider the cloze activity discussed above (about definite and indefinite articles). First provide students with a few minutes to look at the cloze activity on their own, to acclimate to the assignment's goals and procedures, and to give them a chance to attempt some of the activity. After that short period, they would pair up with another student or two to work through other parts of the activity, check that they are headed in the right direction, and have some discussion about the concepts in the activity. The final stage is a whole class discussion of the cloze activity, where the instructor works through the activity with students in a metacognitive way. Think-pair-share thus allows students time to understand and try out the activity in a low-stress way, work with one or two classmates intensively on parts of the activity, and then contribute successfully to a whole class discussion and completion of the activity where the instructor can also ensure that the goals of the activity are being met. This general approach to classroom strategy work can structure many different classroom activities.

General questions to ask about think-pair-share type structures while planning curriculum. *Which activities will you structure using a think-pair-share type progression? There are many ways to structure class work: If that progression does not lend itself to a particular activity or lesson, what kind of student work/class discussion framework will you use? Can think-pair-share be an approach you use that students find useful, and how can you adapt it with a particular class to increase its usefulness?*

Metacognition

An important part of the process of adopting an IRW approach to instruction is taking a metacognitive approach with students in all aspects of the class. Metacognition, or thinking about thinking, involves considering not only writing activities or reading strategies but also how those strategies work, why we employ them, when to use them, and in general monitoring how our reading and writing is progressing and being able to talk about the processes involved.

Students need to be aware of the reading and writing processes they are engaged in: metacognition is an important part of an integrated reading and writing course. It is crucial to make the relationship and connections between reading and writing explicit, and it involves discussion of the activities and the role they play in building reading and writing proficiencies. Raising students'

metacognitive awareness of the relationship and connections between reading and writing can be done in many different ways, and should be a part of the ongoing discussions in class.

Example of metacognitive awareness in the IRW class. Discussions that raise awareness of reading and writing processes and the relationship between reading and writing should take place throughout the course and can take several different forms. As one example, an instructor might provide some information in the course syllabus about the perspective on reading and writing, in order to set the stage from the first day of class; this short text, or something like it, could go in the syllabus:

> *Students, welcome to the Integrated Reading & Writing class. As we move through the course, we want to think constantly about how reading and writing work, and how they are related. For example, you might think of your textbook as if it were a grocery store. When I go shopping, it's generally because I need groceries—this is my purpose. Without this purpose, I'd just wander around aimlessly, looking at all the pretty colors; just like if you have no purpose when reading, you'll just kind of cruise through the text without getting much out of it. In the grocery store, I usually bring a list, which helps me keep track of my progress; in terms of reading, it's kind of like making sure I'm understanding what I read while I read. Writing while reading your textbooks is very important, for the same reasons. Without a list, I'd be home cooking dinner before I knew if I had bought what I needed to; in the same way, if you don't monitor and organize what you're reading as you read, you won't know if you've understood it until the test arrives. In the grocery store, I've also got a plan of sorts—I don't wander all over, picking up things from my list at random; instead, I pick up my milk, eggs, and cheese all at once while I'm in the dairy aisle so I don't have to keep returning to that same aisle over and over. In the same way, while reading, it's important to use a reading strategy or two—and to write about what you are reading, at least in note or reflection form—so that you get what you need out of a section while reading it and so you can use that information in your writing later on.*

Figure 6: Example Metacognition Awareness Short Text for Discussion

Another key way to encourage metacognitive reflection in the course is to identify parts of the course texts that students are reading that lend themselves to discussing reading and writing processes. As an illustration, in one of the texts used as an example text in the course sequence in this document—the King book, *The Body*—the characters are having an argument about whether or not a story they were listening to ended in a satisfactory way. Some of the characters thought the author of that story needed to provide more information; other characters thought it ended just fine. This particular segment can be focused on in the IRW class for a metacognitive discussion about author's responsibility and reader's responsibility, and how both author and reader are needed in order to construct meaning from a text. What is key here is linking this discussion to a shared textual experience the class has had together—having an abstract discussion about "reader's responsibility" will not be as effective as having one that relates explicitly to a text the entire class has been reading.

General questions to ask while planning metacognitive aspects of curriculum. *What kinds of discussions will you have with your students about reading and writing? How will you raise awareness of how reading and writing work with your students? Are you able to build in discussions of goals and purposes when doing and talking about each activity in class? How will you encourage students to consider "why" a tool is useful for building reading and writing proficiency as well as "how" it works?*

Concluding Remarks

The purpose of this curriculum framework is to provide information about the major components of an Integrated Reading & Writing approach to postsecondary literacy instruction. In general, an IRW approach foregrounds metacognitive reflection in concert with recursive curricula that views all classroom activity as involving continuous reading and writing on all the texts available to, and produced by, students in the IRW class. Description, examples, and questions to guide curriculum planning were introduced for each component of this approach. These descriptions and examples connect to the weekly sequence example presented at the end of the section.

Instructors are encouraged to view the information here not in terms of an explicit step-by-step set of directions, but rather in terms of a holistic understanding of the components of an IRW approach to postsecondary literacy instruction and how those components fit together as part of an effective curriculum. For this reason, the descriptions were narrative and varied in scale and designed to lend themselves to adaptation. The specific context of each college, course, class, and student population must always be at the forefront of actual and ongoing curriculum planning.

References and Bibliography, Integrated Reading & Writing

Ackerman, J. (1991). Reading, writing, and knowing: The role of disciplinary knowledge in comprehension and composing. *Research in the Teaching of English, 25*, 133-78.

Armstrong, S. & Paulson, E. J. (2008). Whither 'peer review'?: Terminology matters. *Teaching English in the Two-Year College, 35*(4), 398-407.

Baker, E. D., Hope, L., Karandjeff, K. (2009). Contextualized teaching & learning: A faculty primer. Retrieved from http://www.asccc.org/sites/default/files/CTL.pdf

Bartholomae, D., & Petrosky, A. (1986). *Facts, artifacts, and counterfacts: Theory and method for a reading and writing course.* Upper Montclair, NJ: Boynton/Cook.

Carillo, E. C. (2009). Making reading visible in the classroom. *Currents in Teaching and Learning, 1*(2), 37-41.

Dickson, S. (1999). Integrating reading and writing to teach compare-contrast text structure: A research-based methodology. *Reading & Writing Quarterly, 14*, 49-79.

Dickson, S. V., Chard, D. J., & Simmons, D. C. (1993). An integrated reading/writing curriculum: A focus on scaffolding. *LD Forum, 18*(4), 12-16.

Dossin, M. M. (2003). Among friends: Effective peer critiquing." *The Clearing House, 76*(4), 206-207.

Eisterhold, J. C. (1990). Reading-writing connections: Toward a description for second language learners. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 88-101). New York, NY: Cambridge University Press.

Elbow, P. (1993). The war between reading and writing and how to end it. *Rhetoric Review*, *12*, 5-24.

Engstrom, E. U. (2005). Reading, writing, and assistive technology: An integrated developmental curriculum for college students. *Journal of Adolescent & Adult Literacy, 49*(1), 30-39.

Esmaeli, H. (2002). Integrated reading and writing tasks and ESL students' reading and writing performance in an English language test. *The Canadian Modern Language Review, 58*(4), 599-622.

Farahzad, F. & Emam, A. (2010). Reading-writing connections in EAP courses: Implications and applications. *Journal of Language Teaching and Research, 1*(5), 596-604.

Flower, L. (1988). The construction of purpose in writing and reading. *College English, 50*(5), 528-550.

Fry, V. & Ecung, A. (1998). Views and processes for integrating reading and writing for successful developmental process. In P. L. Dwinell and J. L. Higbee (Eds.), *Developmental education: Meeting diverse student needs* (pp. 35-44). Morrow, GA: National Association for Developmental Education.

Giesen, L. (2001). *Activities for integrating reading and writing in the language classroom*. (Unpublished master's thesis.) School for International Training: Brattleboro, VT.

Goen-Salter, S. (2008). Critiquing the need to eliminate remediation: Lessons from San Francisco State. *Journal of Basic Writing, 27*(2), 81-105.

Goodman, K. S. (1994). Reading, writing, and written texts: A transactional sociopsycholinguistic view. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (4th ed., pp. 1093-1130). Newark, Del: International Reading Association.

Henry, J. (1995). *If not now: Developmental readers in the college classroom.* Portsmouth, NH: Heinemann.

Lyman, F. (1981). The Responsive Classroom Discussion: The Inclusion of All Students. Mainstreaming Digest. University of Maryland, College Park, MD.

Marello, C. (1999). *The effects of an integrated reading and writing curriculum on academic performance, motivation, and retention rates of underprepared college students*. (Unpublished doctoral dissertation.) University of Maryland: Maryland.

Parodi, G. (2007). Reading-writing connections: Discourse-oriented research. *Reading and Writing, 20*, 225-250.

Paton, F. (2002). Approaches to productive peer review." In D. Roen et al. (Eds.), *Strategies for Teaching First-Year Composition* (290-301). Urbana, IL.: NCTE.

Purcell-Gates, V. (1997). There's reading…and then there's reading: Process models and instruction. Focus on Basics, 1(B). Retrieved from http://gseweb.harvard.edu/~ncsall/fob/1997/vpg.htm.

Quinn, K. B. (1995): Teaching reading and writing as modes of learning in college: A glance at the past; a view to the future. *Reading Research and Instruction, 34*(4), 295-314.

Rosenblatt, L. M. (1994). The transactional theory of reading and writing. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (4th Ed., pp. 1057-1092). Newark, DE: International Reading Association.

Salvatori, M. (1996). Conversations with texts: Reading in the teaching of composition. *College English, 58*(4), 440-454.

Shanahan, T. (1984). Nature of the reading-writing relation: An exploratory multivariate analysis. *Journal of Educational Psychology, 76*(3), 466-477.

Simpson, M. L., & Nist, L. (2000). An update on strategic learning: It's more than textbook reading strategies. *Journal of Adolescent & Adult Literacy, 43*(6), 528-541.

Smagorinsky, P. (1992). How reading model essays affects writers. In J. W. Irwin & M. A. Doyle (Eds.), *Reading/writing connections: Learning from research* (pp. 160-176). Newark, DE: International Reading Association.

Spires, H. A., Huffman, L. E., Honeycutt, R. L., & Barrow, H. P. (1995). Socializing college developmental students to hear their academic voices with literature. *Journal of Reading, 38*(5), 340-345.

Stotsky, S. (1983). Research on reading/writing relationships: A synthesis and suggested directions. *Language Arts, 60*(5), 627-642.

Tierney, R.J., & Pearson, P.D. (1983). Toward a composing model of reading. *Language Arts, 60*, 568-580.

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SECTION I APPENDICES

Section I Appendix A: Map of Integrated Reading and Writing in the CCRS

Writing Standards (W) *and* Cross-Dis. Writing across the Curriculum Standards (CDSW)	**Elements of Writing Standards**	**Correspond to Reading Standards (R) and Cross-Disciplinary Reading Across the Curriculum Standards (CDS-R)**
(W) A. 1: Determine effective approaches, forms, and rhetorical techniques that demonstrate understanding of the writer's purpose and audience.	Determine effective approaches, forms, and rhetorical techniques.	(R) A.8. Compare and analyze how generic features are used across texts. (R) C.1. Read a wide variety of texts from American, European, and world literatures. (R) C.2. Analyze themes, structures, and elements of myths, traditional narratives, and classical and contemporary literature. (R) C.3. Analyze works of literature of what they suggest about the historical period and cultural contexts in which they were written. (CDS-R) A.3. Identify the intended purpose and audience of the text.
	Understanding of the writer's purpose and audience.	(R) A.1. Use effective reading strategies to determine a written work's purpose and intended audience. (R) A.9. Identify and analyze the audience, purpose, and message of an informational or persuasive text.
(W) A. 2: Generate ideas and gather information relevant to the topic and purpose, keeping careful records of outside sources.	Generate ideas	(R) B.1. Identify new words and concepts acquired through study of their relationships to other words and concepts. (CDS-R) A.1. Use effective prereading strategies. (PERFORMANCE INDICATORS, "PREWRITING") (CDS-R) A.8. Connect reading to historical and current events and personal interest.
	Gather information relevant to the topic and purpose	(R) A.2. Use text features and graphics to form an overview of informational texts and to determine where to locate information. (R) A.4. Draw and support complex inferences from text to summarize, draw conclusions, and distinguish facts from simple assertions and opinions. (R) D.2. Analyze the influence of myths, folktales, fables, and classical literature from a variety of world cultures on later literature and film. (as a specific example of gathering information relevant to the topic and purpose) (CDS-R) A.8. Connect reading to historical and current events and personal interest.
	Keeping careful records of outside sources.	(R) A.11. Identify, analyze, and evaluate similarities and differences in how multiple texts present information, argue a position, or relate a theme.
(W) A. 3: Evaluate relevance, quality, sufficiency, and depth of preliminary ideas and information, organize material generated, and formulate a thesis.	Evaluate relevance, quality, sufficiency, and depth of preliminary ideas and information	(R) A.5. Analyze the presentation of information and the strength and quality of evidence used by the author, and judge the coherence and logic of the presentation and the credibility of an argument. (CDS-R).A.5. Analyze textual information critically.
	Organize material generated	(R) A.8. Compare and analyze how generic features are used across texts. (CDS-R) A.6. Annotate, summarize, paraphrase, and outline texts when appropriate.
	Formulate a thesis.	(R) A.3. Identify explicit and implicit textual information including main ideas and author's purpose. (CDS-R) A.4. Identify the key information and supporting details.
(W) A. 4: Recognize the importance of revision as the key to effective writing. Each draft should refine key ideas and organize them more logically and fluidly, use language more precisely and effectively, and draw the reader to the author's purpose.	Refine key ideas	(R) A.3. Identify explicit and implicit textual information including main ideas and author's purpose. (CDS-R) A.4. Identify the key information and supporting details.
	Organize them more logically and fluidly	(R) A.5. Analyze the presentation of information and the strength and quality of evidence used by the author, and judge the coherence and logic of the presentation and the credibility of an argument. (CDS-R) A.7. Adapt reading strategies according to structure of texts.
	Use language more precisely and effectively	(R) A.5. Analyze the presentation of information and the strength and quality of evidence used by the author, and judge the coherence and logic of the presentation and the credibility of an argument. (R) A.6. Analyze imagery in literary texts. (R) A.7. Evaluate the use of both literal and figurative language to inform and shape the perceptions of readers. (R) C.4. Analyze and compare the use of language in literary works from a variety of world cultures. (CDS-R) A.2. Use a variety of strategies to understand the meanings of new words.
	Draw the reader to the author's purpose.	(R) A.1. Use effective reading strategies to determine a written work's purpose and intended audience. (CDS-R) A.3. Identify the intended purpose and audience of the text.

Writing Standards (W) *and* Cross-Dis. Writing across the Curriculum Standards (CDSW)	**Elements of Writing Standards**	**Correspond to Reading Standards (R) and Cross-Disciplinary Reading Across the Curriculum Standards (CDS-R)**
(W) A. 5: Edit writing for proper voice, tense, and syntax, assuring that it conforms to standard English, when appropriate.	Edit writing for proper voice	(R) A.10. Identify and analyze how an author's use of language appeals to the senses, creates imagery, and suggests mood.
	Edit writing for proper tense	(R) A.8. Compare and analyze how generic features are used across texts.
	Edit writing for proper syntax	
	Conforms to standard English	(R) B.3. Use reference guides to confirm the meanings of new words or concepts. (CDS-R) A.2. Use a variety of strategies to understand the meanings of new words. (R) B.2. Apply knowledge of roots and affixes to infer the meanings of new words.
(CDS-W) B.1. Write clearly and coherently using standard writing conventions.	Write clearly and coherently	(R) A.5. Analyze the presentation of information and the strength and quality of evidence used by the author, and judge the coherence and logic of the presentation and the credibility of an argument.
	using standard writing conventions.	(R) C.2. Analyze themes, structures, and elements of myths, traditional narratives, and classical and contemporary literature. (CDS-R) A.7. Adapt reading strategies according to structure of texts.
(CDS-W) B.2. Write in a variety of forms for various audiences and purposes.	Write in a variety of forms	(R) C.1. Read a wide variety of texts from American, European, and world literatures. (R) C.2. Analyze themes, structures, and elements of myths, traditional narratives, and classical and contemporary literature. (R) A.9. Identify and analyze the audience, purpose, and message of an informational or persuasive text. (R) D.1. Describe insights gained about oneself, others, or the world from reading specific texts. (PERFORMANCE INDICATORS)
	for various audiences and purposes.	(R) A.1. Use effective reading strategies to determine a written work's purpose and intended audience.
(CDS-W) B.3. Compose and revise drafts.	(CDS-W) B.3. Compose and revise drafts	(R) A.1. Use effective reading strategies to determine a written work's purpose and intended audience. (R) A.3. Identify explicit and implicit textual information including main ideas and author's purpose. (R) A.4. Draw and support complex inferences from text to summarize, draw conclusions, and distinguish facts from simple assertions and opinions.

Section I Appendix B: Example of an Integrated Reading and Writing Class Sequence

General Information

- In many ways, this example sequence is the least important part of this document. The descriptions of components of an IRW course described in the body of this document should be used to construct a course sequence that is appropriate for the goals of your particular course and context.
- This example is meant to be read alongside the more complete explanations in the entire *Components of an Integrated Reading & Writing Course* document. It will not make sense without that document.
- This example should be viewed as one of many ways to accomplish the goals of an integrated reading/writing approach. Your own course pacing, course themes, readings, written assignments, and more should be planned with your specific students and context in mind.
- There are many other activities in addition to the ones illustrated here than can be appropriate to your course context and goals. For example, the *Choice Text* assignment that was described in this document is not built into this particular sequence example, but certainly could take the place of some of the summary assignments or other activities.
- Example course theme used here: *Learning from Mistakes*.
- Example assignments used here include: two essays, written summaries of texts, reading a variety of texts, reflective journaling.
- Writing Process work can be referenced from a writing text that focuses on the mechanics of writing (recommended: Diane Hacker's *A Writer's Handbook*, which includes ESL student foci) or through your own examples but should be contextualized to the texts being written and read in the class.
- Example Texts for the theme "Learning from Mistakes" could include:
    - Short stories: Sandra Cisneros, *House on Mango Street*
    - Chapter from a book: *Rework* by Jason Fried and David Heinemeier, chapter 2: "Learning From Mistakes is Overrated"
    - Online article: Learning from Brilliant Mistakes, by Peter Cohan
    - Novella: *The Body* by Stephen King (the movie *Stand By Me*)
    - Article from Internet news magazine: *Better by Mistake: The Unexpected Benefits of Being Wrong* by Alina Tugend
    - Writing mechanics: *A Writer's Reference with Resources for Multilingual Writers and ESL* by Diana Hacker and Nancy Sommers

Week 1

- Introduction and discussion of course theme: *Learning from Mistakes.*
- Class Introductions, ice-breakers, introductions to the course, other first-week preparatory work.
- Discussion of how reading and writing intersect and overlap.
- Approach to reading and writing: discussion and overview of course assignments.
- Approach to reading and writing, *narrative* texts: reading assignments and introduction to *Mango Street* text.
- Approach to reading and writing, *expository* texts: introduction to *Brilliant Mistakes* text
- Introduction to Essay #1: a narrative essay about the student's experiences with learning and how mistakes are useful in the learning process or not useful in the learning process.
- Viewing Essay #1 as both a reader and a writer.
- Viewing the *Mango Street* and *Brilliant Mistakes* texts as both a reader and a writer.

Homework:

- Classwork segues into homework in general.
- Brainstorm Essay #1 ideas.
- Begin reading and writing about the *Mango Street* text.
- Begin reading and writing about the *Brilliant Mistakes* text.
- Reflective journaling: how do the *Mango Street* text and the *Brilliant Mistakes* text relate to your own ideas of how learning happens?

Week 2

- Metacognitive discussion about the relationship between effective reading and effective writing.
- Introduction to summary assignments.
- Viewing summaries from a writer's perspective and from a reader's perspective.
- Writing Process work for Essay #1: brainstorming, outlining, drafting, peer review, revising.
- Draft of summary assignment on the *Brilliant Mistakes* text due at end of week.
- Peer review of summaries.
- Reading strategy work.
- Discussions of reading and writing goals
- Discussions of reading strategies.
- Continue reading *Mango Street*.
- Strategies for reading expository book chapters: *Rework* text.
- Ongoing Writing Process work tied to CCRS: introduction to brainstorming, outlining, drafting, peer review, revising, & focus on mechanics with the Hacker & Sommers writing textbook.
- Ongoing Reading Process work tied to CCRS: introduction to strategies for comprehending textbook and/or technical/expository text excerpts in a variety of ways.

Homework:

- Classwork segues into homework in general.
- Writing process work on Essay #1.
- Writing process work on summary on *Brilliant Mistakes* chapter.
- Finish *Mango Street* text.
- Begin reading *Rework* text.
- Reflective journaling: *Mango Street* text, *Rework* text.

Week 3

- Focus on metacognitive awareness of the goals of reading the course texts and the goals of writing the course assignments.
- Essay #1 due. (After Essay #1 is returned to student by the instructor, students can revise it again if they wish before it is made available to the rest of the students in the class to be used as a course text for Essay #2.)
- New course text is introduced: novella *The Body* by King with learning and development themes.
- Review Essay #2 assignment and brainstorm similarities and differences in Learning from
- Mistakes ideas that students wrote about in their Essay #1.
- Discussion of reading & writing connections specific to working on Essay #2.
- Viewing the *Body* text as a reader and a writer
- Final draft of summary assignment on *Brilliant Mistakes* text due at end of week.
- Focus on writing issues as they arise.
- Viewing Essay #2 from a reader's perspective and a writer's perspective
- Ongoing Writing Process work tied to CCRS: brainstorming, outlining, drafting, peer review, revising & focus on mechanics with the Hacker & Sommers writing textbook.
- Ongoing Reading Process work tied to CCRS: strategies for comprehending a variety of texts in a variety of ways.

Homework:

- Classwork segues into homework in general.
- Finish reading *Rework* text.
- Begin reading the *Body* text.
- Reflective journaling, the *Body* text and *Rework* text.

Week 4

- Focus on metacognitive awareness of how students' favorite reading strategies can be adapted to work as a writing strategy, and vice-versa.
- Students brainstorm which of their classmates' Essay #1 they would like to use as a source text in their own Essay #2.
- Summaries: Students work on summaries of the source texts they will use for their Essay #2 over the next couple days. Early in the week they will focus on a summary of one of their classmates' completed Essay #1's.

- Students peer review each other's summaries when ready.
- Discussion of how summaries of Essay #1 guide how they are used as source texts for Essay #2.
- Discussion of, and ongoing writing about, the *Body* text.
- Viewing classmates' Essay #1 from a reader's perspective and a writer's perspective.
- Viewing the *Body* text as a reader and a writer
- Due: Summaries on a classmate's finished Essay #1, plus peer review organizer, is due.
- Ongoing Writing Process work tied to CCRS: brainstorming, outlining, drafting, peer review, revising & focus on mechanics with the Hacker & Sommers writing textbook.
- Ongoing Reading Process work tied to CCRS: strategies for comprehending textbook and/or technical/expository text excerpts in a variety of ways

Homework:

- Classwork segues into homework in general.
- Students read several of their classmates' Essay #1's.
- Writing process work on summary of classmate's Essay #1.
- Continue reading the *Body* text.
- Final draft of summary.
- Students begin to map out Essay #2.
- Reflective journaling: the *Body* text, relationship between Essay #1 and Essay #2.

Week 5

- Class discussion on elements of reading.
- Begin reading the *Better by Mistake* text.
- Continuing process work on Essay #2.
- Viewing the *Body* text and the *Better by Mistake* text as a reader and as a writer.
- Ongoing Writing Process work tied to CCRS: brainstorming, outlining, drafting, peer review, revising & focus on mechanics with the Hacker & Sommers writing textbook.
- Ongoing Reading Process work tied to CCRS: strategies for comprehending textbook and/or technical/expository text excerpts in a variety of ways.

Homework:

- Classwork segues into homework in general.
- Continue reading the *Body* text.
- Begin reading the *Better by Mistake* text.
- Reflective journaling: the *Body* text and the *Better by Mistake* text.
- Writing process work on Essay #2.
- Reflective journaling.

Week 6

- General discussion of the *Body* reading.
- Discussion of context and audience in reading and writing, with the *Better by Mistake* text as a focus.
- Discussion of how Students' Essay #1, the *Body* text, the *Better by Mistake* text, and other texts deal with learning and how they can contribute to students' Essay #2.
- Draft of Essay #2 due.
- Peer review of draft of Essay #2.
- Viewing Essay #1, the *Body* text, the *Better by Mistake* text, and the *Brilliant Mistakes* text as a reader and writer.
- Ongoing Writing Process work tied to CCRS: brainstorming, outlining, drafting, peer review, revising & focus on mechanics with the Hacker & Sommers writing textbook.
- Ongoing Reading Process work tied to CCRS: strategies for comprehending textbook and/or technical/expository text excerpts in a variety of ways.

Homework:

- Classwork segues into homework in general.
- Continue reading the *Body* text.
- Finish reading the *Better by Mistake* text.
- Reflective journaling: the *Body* text and the *Better by Mistake* text.

Week 7
• Essay #2 due. • Discussion of the *Body* and the *Better by Mistake* texts and reflective journal entries. • Begin summary assignment on the *Better by Mistake* text. • Viewing Essay #2 from the perspective of a reader and a writer. • Ongoing Writing Process work tied to CCRS: brainstorming, outlining, drafting, peer review, revising & focus on mechanics with the Hacker & Sommers writing textbook. • Ongoing Reading Process work tied to CCRS: strategies for comprehending textbook and/or technical/expository text excerpts in a variety of ways.
Homework • Continue reading the *Body* text. • Reflective journaling: the *Body* text.
Week 8
• Classwork segues into homework in general. • Finish reading the *Body* text. • Discussion of the *Body* text, with a focus on what we discovered about reading processes. • Construct a portfolio of all drafts of all assignments and reflect on the process and your development as a reader and a writer in your reflective journal. • Preparing for the next class: focus on reading and writing in college. • *Looking back*: o oreview Essay #1 and Essay #2 assignments. How would you approach them now? What changes would you make to each? o What reading strategies were most useful for you? Did they differ depending on the text you were reading? • *Looking forward*: o What are your goals for your next class? How will you approach reading and writing in that class? How will you adapt the strategies from this class to be useful in your next class?
Homework: • Classwork segues into homework in general. • Reflective journaling: reading and writing processes and development.

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Section II

Curriculum Framework for Mathematics Adult Basic Education Courses and Workshops

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Section II: Curriculum Framework for Mathematics Adult Basic Education Courses and Workshops

Introduction

Over the past few years, mathematics adult basic education (ABE) curriculum has been shifting from a basic arithmetic and algebra paradigm (i.e., 8th grade mathematics) to that of a diverse, content-rich mathematics college and career readiness goal. In Texas, the birth of the Texas College and Career Readiness Standards (CCRS) (Texas Higher Education Coordinating Board [THECB], 2008) played a significant role in this shift. Nationally, the new General Educational Development (GED) tests expected in 2014 and the Common Core Curriculum also identified a more rigorous move toward college and career readiness. In turn, the spirit of the CCRS was founded on a need to empower a larger populous to succeed in postsecondary education. This framework serves to provide a guide towards establishing a mathematics ABE curriculum that is aligned to the CCRS.

What is Mathematics Adult Basic Education Curriculum?

Stakeholders' Perspectives.

Various stakeholders hold opinions and beliefs about what mathematics ABE curriculum is. Figure 1 shows at least nine stakeholder categories. It is safe to say that each of the stakeholders have mathematics learning as a goal. However, a closer look reveals that curricular learning outcomes are based on varying topics.

Rock and a Hard Place

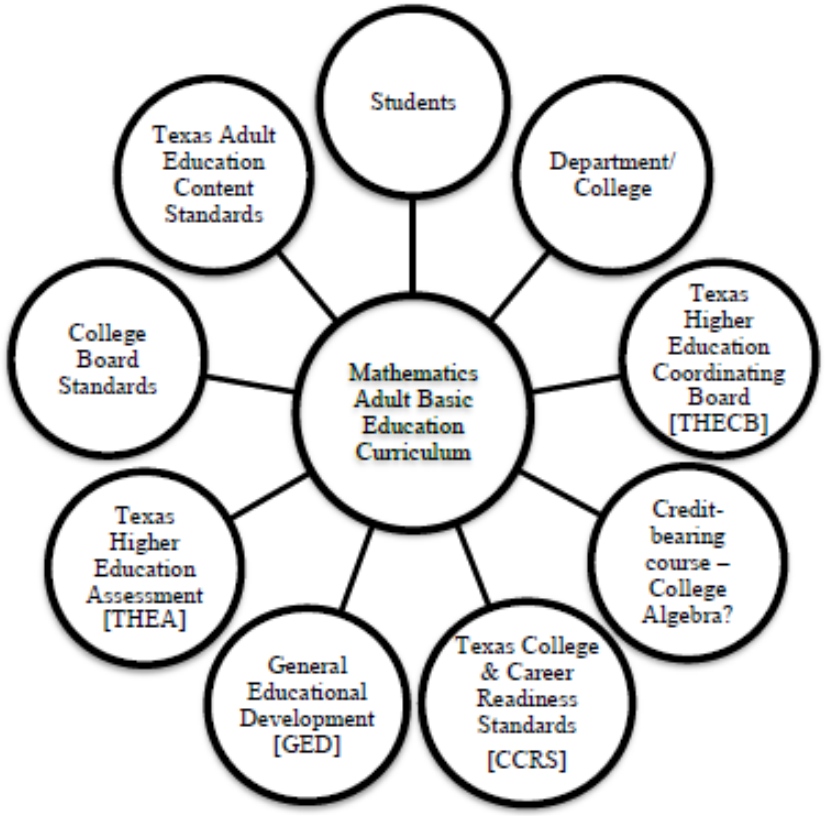

Figure 1. Rock and a Hard Place: This figure illustrates nine possible influences on mathematics ABE curriculum.

As an example, the Texas Higher Education Assessment (THEA)[1] and the CCRS differ dramatically in the areas of probability and measurement. See Appendix A for a chart showing alignment[2] between the two standards documents. Other issues, such as calculator usage, shed light on how difficult it can be to satisfy all interested parties. Appendix B includes a list of references to assist with supporting decisions towards more reform-based curriculum and instruction involving technology.

CCRS Perspective

Although each of the stakeholder's perspective is important, one primary reason that the CCRS were developed was to promote and uphold mathematical standards. It is imperative that the mathematics CCRS frame mathematics ABE curriculum. Although it may sound like a strange recommendation, take some time to read the mathematics CCRS and as an exercise, attempt to write a problem that epitomizes each of the performance indicators (in the appendix section in taupe boxes).

The mathematics CCRS are similar to other mathematics standards in that it includes both content and process standards. The mathematics CCRS, unlike other standards, accentuates the importance of reasoning as noted in the incorporation of reasoning in 6 of the 10 standard titles (e.g.,

[1] The THEA was replaced by the TSIA in fall 2013.
[2] The author has developed several other alignment charts and the results are similar.

Numeric Reasoning, Algebraic Reasoning, Geometric Reasoning, Measurement Reasoning, Probabilistic Reasoning, and Statistical Reasoning) as well as a stand-alone standard, Problem Solving and Reasoning. Another distinguishing feature of the mathematics CCRS is the uncoupling of geometry and measurement along with probability and statistics. Thus, each of these standards is equally weighted and should therefore be uniquely incorporated. Nevertheless, the unique incorporation needs to be balanced with cross-disciplinary attention; there is a component of the standards that speaks to cross-disciplinary standards and each of the mathematics standards includes 'connections' statements. The importance of functions is also duly noted since this specific content is the only stand-alone standard. Although a more subtle point about the standards, the use of technology is not directly stated as a standard. Yet, each standard includes references to the use of technology as performance indicators.

Designing Mathematics ABE Curriculum

At the forefront of curriculum development is the perspective of the mathematics CCRS. However, there are various approaches to take. Below, are five suggestions for constructing a scope and sequence that is aligned with the mathematics CCRS.

Contemporary

Since ABE has the advantage of mature and experienced students, a contemporary approach that capitalizes on current, real-world mathematics ideas seems like a natural approach. So, one could take a concept from popular culture like the Olympics and 'extract' the mathematical ideas. An advantage of this approach is that it is present-day and encourages curriculum developers to continue to revisit and update the curriculum. See below for an example outline and Appendix C for some select references.

Example of Thematic Curriculum

Contemporary Topic	Real-world Math Ideas	TxCCRS
Gaming		
Angry Birds	Parabolas	GR
Win/Lose/Draw	Game Theory, Probability	PR
Computer	Binary Code, Graph Theory/Networks	NR
Voting		
Strategy Results	Voting Theory, Probability (Independent & Dependent)	PR
Budgets		
Personal Budgets	Data Representation	SR
Day Care	Systems of Linear Equations	GR, Func
Weight loss	Conversions	NR
Gift Cards	Ratio, Proportion, Percent	NR

Example of Thematic Curriculum, *continued*

Contemporary Topic	Real-world Math Ideas	TxCCRS
Social Media		
Twitter	Exponents	NR
Facebook	Bases	NR
MySpace	Systems of Linear Equations	GR, Func
Hot Topics		
Reality TV	Exponential Growth	AR
Dec. 21, 2012	Number System, Bases	NR
Career Readiness		
Nurse	Unit Conversion	MR
Applying for Jobs	Chance	PR
Construction	3-D Shapes	GR, MR
Olympics		
History	Room Numerals	NR
Track & Field	Linear Measures	GR, MR
Story Time		
Sponge Bob	3-D Shapes	GR
Winnie the Pooh	Linear Measures	GR

NR – Number representation
GR – Geometric Reasoning
PR – Probabilistic Reasoning
Func – Functions
AR – Algebraic Reasoning
MR – Measurement Reasoning
SR – Statistical Reasoning

Situated

Situated curriculum allows for the mathematics that exists in given situations to be studied. This approach is especially useful for individuals already committed to a particular program of study. For instance, individuals studying to be a Medical Assistant could center curriculum on ideas such as blood pressure, temperature, weight, and height (Bureau of Labor Statistics, 2012). This method is beneficial since it is consistent with the IBEST model (Washington State Board for Community and Technical Colleges, 2005) and Supplemental Instruction (Lave & Wenger, 1991), two models that are used with ABE. See below for an example of an outline and Appendix D for some select references.

Example of Situated Curriculum

Medical Assistant Duty	**Real World Math Idea**	**TxCCRS**
Vital signs		
Temperature	Unit conversion	MR
Blood pressure	Proportions	NR
Heart rate	Ratio & percent	NR
Respiratory rate	Ratio & percent	NR
Height	Unit conversion	MR
Weight	Unit conversion	MR

Example of Situated Curriculum, *continued*

Medical Assistant Duty	Real World Math Idea	TxCCRS
Pain scale	Precision	PR
Pupil size	Scaling	GR
Medical assisting		
Patient injections	Unit conversion	MR
Diet instruction	Percent	NR
Dressing	Surface Area	MR

NR – Number representation
GR – Geometric Reasoning
PR – Probabilistic Reasoning
Func – Functions
AR – Algebraic Reasoning
MR – Measurement Reasoning
SR – Statistical Reasoning

Algebraic Stem

One way to maintain allegiance to an algebraic framework is to maintain an algebra curriculum but use geometry, measurement, probability, and statistics as ways to expand on the content. For example, linear equations can extend to linear functions and can be elaborated upon through correlation. This approach leaves the door open for those students that may want to continue their postsecondary education, most of which are slow to provide non-algebraic options to their students (i.e., most still require College Algebra). See below for an example of an outline and Appendix E for some select references.

Example of Algebraic Stem Curriculum

Algebraic Topic	Math Idea Expansion	TxCCRS
Linear Equations in Two Variables		AR, Func
	Correlation	SR
	Lines	GR
	Degree of scatter	MR
Rational Functions		AR, Func
	Ratio	NR
	Discontinuity	GR
	Theoretical probability	PR

NR – Number representation
GR – Geometric Reasoning
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Process at the Forefront

Utilizing the mathematics CCRS as units of study is another method. One way to do this is to lead with the process standards. For instance, reasoning is prevalent through the mathematics CCRS. Hence, one can begin with quantitative reasoning and continue to algebraic reasoning and so on. One thing to keep in mind with this approach is to consider using the Concrete-Representation-Abstract (The Access Center, n.d.) perspective. As an example, in geometry use a dimensional progression

(i.e., 0-D, 1-D, 2-D, and 3-D). If you are considering infusing some type of modular method, this way works well with. See below for an example of an outline and Appendix F for some select references.

Example of Process at the Forefront Curriculum

TxCCRS	Math Idea
Numeric Reasoning	
Introduction to Numbers	Place value, even/odd, prime/composite
Sets of Real Numbers and the Real Number Line	Read number subsets & complex numbers
Ordering Numbers on the Number Line and Absolute Value	Using the number line to graphically represent distance
Operations on Real Numbers	Basic operations and recognizing other key operations like square root
Field Properties	All field properties including closure and the distributive property
Order of Operations and Estimation	Building consensus for procedural agreement

Themes

Many times, there are key mathematical ideas that ABE mathematics students should investigate holistically. For instance, the concept of line can be seen geometrically as a straight angle or by definition (lines have one dimension; It is a set of points with three characteristics: (1) straight, (2) no thickness (the only dimension is length) and (3) extends infinitely in both directions) or algebraically as a real number line. A thematic curriculum takes one central mathematics concept and builds a thematic unit around the idea, exploiting the notion through algebra, geometry, probability, measurement, and statistics. Appendix G consists of some references related to this approach and Appendix H demonstrates how this method can be discerned from existing standards. Other mathematics themes include equations and graphing.

Summary

Regardless of which approach you take, it is important to remember to utilize research-based best practices and incorporate process standards in every aspect. Below is a list of Do's and Don'ts to help guide you through the transition.

Strategies for Course Development: Do's and Don'ts

DO…	**DON'T…**
Seek sources to support a diverse curriculum	Default to a textbook driven curriculum
Match curriculum to appropriate pedagogy and assessments	Think of curriculum in isolation
Foster a student-centered curriculum	Produce a predominately teacher-centered curriculum
Address college and career readiness	Rely soley on K-12 curriculum
Take advantage of student life experiences	Be afraid to reinvent the wheel
Recognize that students have their own mindset of mathematics curriculum	Discard student mathematics history and knowledge and skillset

Strategies for Course Development: Do's and Don'ts, *continued*

DO…	DON'T…
Use backwards design to create student learning outcomes	Create decontextualized curriculum objectives
Aim for a higher level of Bloom's Taxonomy	Address the lowest level of Bloom's Taxonomy
Use technology and incorporate manipulatives	Use irrelevant pedagogical tools with modern curriculum
Aim for understanding	Aim for basic skills mastery

As you begin the journey of creating a scope and sequence, consider these suggestions:

- Create a template to write lessons that includes all the essential components you want in a lesson including student learning outcomes
- Develop a scope and sequence and cross-check it against the CCRS. Any of the examples for any of the five types of approaches can be transformed into a scope and sequence. Take for example the Contemporary method – there are eight main ideas that can be investigated one per week.
- Team teach and/or observe the teaching of the lessons. If a lesson doesn't go well the first time, make minor tweaks before making a major overhaul.
- Develop informal and formal assessments as you create the scope and sequence.

References

Bureau of Labor Statistics. (2012). U.S. Department of Labor, *Occupational Outlook Handbook, 2012-13 Edition*, Medical Assistants, on December 11, 2012 retrieved from http://www.bls.gov/ooh/healthcare/medical-assistants.htm

Texas Center for the Advancement of Literacy and Learning. (2008). *Texas adult education content standards and benchmarks for ABE/ASE and ESL learners: Implementation guide*. Retrieved December 10, 2012, from http://www-tcall.tamu.edu/taesp/guide08/cover.html

Texas Higher Education Coordinating Board (THECB). (2008). *Texas college and career readiness standards*. Austin, TX: Author.

The Access Center. n.d. *What is the Concrete-representational-abstract Approach?* Washington, DC: Author. Accessed April 27, 2012. http://www.k8accesscenter.org/training_resources/CRA_Instructional_Approach.asp.

Washington State Board for Community and Technical Colleges. (2005). *I-BEST: A program integrating adult basic education and workforce training*. Olympia, WA: Author. Retrieved from http://www.sbctc.edu/college/d_i-best.aspx 43.

Section II Appendix A

THEA and the TX CCRS Alignment – Numeric Reasoning

			Texas College and Career Readiness Standards		
			Numeric Reasoning		
			Number representation	Number operations	Number sense and number concepts
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.	√	√	√
		Solve problems involving data interpretation and analysis.			
	Algebra	Graph numbers or number relationships			
		Solve one- and two-variable equations.			
		Solve word problems involving one and two variables.			
		Understand operations with algebraic expressions and functional notation.			
		Solve problems involving quadratic equations.			
	Geometry	Solve problems involving geometric figures.			
		Solve problems involving geometric concepts.			
	Problem Solving	Apply reasoning skills.			
		Solve applied problems involving a combination of mathematical skills.			

THEA and the TX CCRS Alignment – Algebraic Reasoning

			Texas College and Career Readiness Standards			
			Algebraic Reasoning			
			Expression & equations	Manipulating expressions	Solving equations, inequalities, & systems of equations	Representations
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.				
		Solve problems involving data interpretation and analysis.				
	Algebra	Graph numbers or number relationships			√	√
		Solve one- and two-variable equations.	√	√	√	
		Solve word problems involving one and two variables.	√		√	
		Understand operations with algebraic expressions and functional notation.	√			√
		Solve problems involving quadratic equations.			√	
	Geometry	Solve problems involving geometric figures.				
		Solve problems involving geometric concepts.				
	Problem Solving	Apply reasoning skills.				
		Solve applied problems involving a combination of mathematical skills.				

√ indicates alignment between the THEA and the CCRS.

THEA and the TX CCRS Alignment – Geometric Reasoning

			Texas College and Career Readiness Standards			
			Geometric Reasoning			
			Figures and their properties	**Transformation and symmetry**	**Connections b/w geometry & other mathematical content strands**	**Logic & reasoning in geometry**
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.				
		Solve problems involving data interpretation and analysis.				
	Algebra	Graph numbers or number relationships			√	
		Solve one- and two-variable equations.				
		Solve word problems involving one and two variables.				
		Understand operations with algebraic expressions and functional notation.				
		Solve problems involving quadratic equations.				
	Geometry	Solve problems involving geometric figures.	√			
		Solve problems involving geometric concepts.				
	Problem Solving	Apply reasoning skills.				√
		Solve applied problems involving a combination of mathematical skills.			√	

√ indicates alignment between the THEA and the CCRS

THEA and the TX CCRS Alignment – Measurement Reasoning

			Texas College and Career Readiness Standards			
			Measurement Reasoning			
			Measurement involving physical & natural attributes	**Systems of measurement**	**Measurement involving geometry & algebra**	**Measurement involving statistics & probability**
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.				
		Solve problems involving data interpretation and analysis.				√
	Algebra	Graph numbers or number relationships				
		Solve one- and two-variable equations.				
		Solve word problems involving one and two variables.				
		Understand operations with algebraic expressions and functional notation.				
		Solve problems involving quadratic equations.				
	Geometry	Solve problems involving geometric figures.			√	
		Solve problems involving geometric concepts.			√	
	Problem Solving	Apply reasoning skills.				
		Solve applied problems involving a combination of mathematical skills.			√	

√ indicates alignment between the THEA and the CCRS.
Shaded cell indicates total lack of alignment between the THEA and the CCRS.

THEA and the TX CCRS Alignment – Probabilistic Reasoning and Statistical Reasoning

			Texas College and Career Readiness Standards				
			Probabilistic Reasoning		Statistical Reasoning		
			Counting principles	Computation & interpretation of probabilities	Data collection	Describe data	Read, analyze, interpret, & draw conclusions from data
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.					
		Solve problems involving data interpretation and analysis.				√	√
	Algebra	Graph numbers or number relationships					
		Solve one- and two-variable equations.					
		Solve word problems involving one and two variables.					
		Understand operations with algebraic expressions and functional notation.					
		Solve problems involving quadratic equations.					
	Geometry	Solve problems involving geometric figures.					
		Solve problems involving geometric concepts.					
	Problem Solving	Apply reasoning skills.					
		Solve applied problems involving a combination of mathematical skills.					

√ indicates alignment between the THEA and the CCRS.
Shaded cell indicates total lack of alignment between the THEA and the CCRS.

THEA and the TX CCRS Alignment – Functions

			Texas College and Career Readiness Standards		
			Functions		
			Recognition and representation of functions	Analysis of functions	Model real world situations with functions
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.			
		Solve problems involving data interpretation and analysis.			
	Algebra	Graph numbers or number relationships			
		Solve one- and two-variable equations.			
		Solve word problems involving one and two variables.			
		Understand operations with algebraic expressions and functional notation.	√	√	
		Solve problems involving quadratic equations.	√	√	√
	Geometry	Solve problems involving geometric figures.			
		Solve problems involving geometric concepts.			
	Problem Solving	Apply reasoning skills.			
		Solve applied problems involving a combination of mathematical skills.			

√ indicates alignment between the THEA and the CCRS.

THEA and the TX CCRS Alignment – Problem Solving and Reasoning

			Texas College and Career Readiness Standards		
			Problem Solving and Reasoning		
			Mathematical problem solving	Logical reasoning	Real world problem solving
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.			
		Solve problems involving data interpretation and analysis.			
	Algebra	Graph numbers or number relationships			
		Solve one- and two-variable equations.			
		Solve word problems involving one and two variables.			
		Understand operations with algebraic expressions and functional notation.			
		Solve problems involving quadratic equations.			
	Geometry	Solve problems involving geometric figures.			
		Solve problems involving geometric concepts.			
	Problem Solving	Apply reasoning skills.		√	
		Solve applied problems involving a combination of mathematical skills.	√		√

√ indicates alignment between the THEA and the CCRS.

THEA and the TX CCRS Alignment – Communication and Representation

			Texas College and Career Readiness Standards		
			Communication and Representation		
			Language, terms, and symbols of mathematics	Interpretation of mathematical work	Presentation and representation of mathematical work
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.			
		Solve problems involving data interpretation and analysis.			
	Algebra	Graph numbers or number relationships			
		Solve one- and two-variable equations.			
		Solve word problems involving one and two variables.	√	√	√
		Understand operations with algebraic expressions and functional notation.			
		Solve problems involving quadratic equations.			
	Geometry	Solve problems involving geometric figures.			
		Solve problems involving geometric concepts.			
	Problem Solving	Apply reasoning skills.			
		Solve applied problems involving a combination of mathematical skills.			

√ indicates alignment between the THEA and the CCRS.

THEA and the TX CCRS Alignment – Connections

			Texas College and Career Readiness Standards	
			Connections	
			Connections among the strands of mathematics	Connections of mathematics to nature, real world situations, and everyday life
Texas Higher Education Assessment (THEA)	Foundational Mathematics	Solve word problems involving integers, fractions, decimals, and units of measurement.		
		Solve problems involving data interpretation and analysis.		
	Algebra	Graph numbers or number relationships		
		Solve one- and two-variable equations.		
		Solve word problems involving one and two variables.		
		Understand operations with algebraic expressions and functional notation.		
		Solve problems involving quadratic equations.		
	Geometry	Solve problems involving geometric figures.		
		Solve problems involving geometric concepts.		
	Problem Solving	Apply reasoning skills.		
		Solve applied problems involving a combination of mathematical skills.	√	√

√ indicates alignment between the THEA and the CCRS.

Section II Appendix B

Anderson, R., Anderson, R., Davis, K., Linnell, N., Prince, C., & Razmov, V. (2007). Supporting active learning and example based instruction with classroom technology. *ACM SIGCSE Bulletin, 39*(1), 69-73.

Bellamy, J. S., & Mativo, J. M. (2010). A different angle for teaching math. *Technology Teacher*, *69*, 26-28.

Bos, B. (2009). Technology with cognitive and mathematical fidelity: What it means for the math classroom. *Computers in the Schools*, *26,*107-114.

Browning, C. A., & Garza-Kling, G. (2010, April). Graphing calculators as tools. *Mathematics Teaching in the Middle Schools, 15(*8), 481-485.

Bruff, D. (2009). *Teaching with classroom response systems.* San Francisco, CA: Jossey-Bass.

Cakir, O., & Simsek, N. (2010). A comparative analysis of the effects of computer and paper-based personalization on student achievement. *Computers & Education, 55*, 1524-1531. doi: 10.1016/j.compedu.2010.06.018

Chamblee, G. E., Slough, S. W., & Wunsch, G. (2008). Measuring high school mathematics teachers' concerns about graphing calculators and change: A year long study. *Journal of Computers in Mathematics and Science Teaching, 27(2),* 183-194.

Choy, D., Wong, A., & Gao, P. (2009). Student teachers' intentions and actions on integrating technology into their classrooms during student teaching: A Singapore study. J*ournal of Research on Technology in Education, 42*(2), 175-195.

Crespo, I. S. (2009). *Using technology's internet resources in Algebra 1.* Retrieved from ERIC database (ED510105)

Forster, P.A. (2006). Assessing technology-based approaches for teaching and learning mathematics. *International Journal of Mathematical Education in Science and Technology, 37*(2), 145-164. doi: 10.1080/00207390500285826

Frye, N. E., & Dornisch, M. M. (2008). Teacher technology use and student evaluations: The moderating role of content area. *Journal of Educational Technology Systems*, *36*(3), 305-317.

Gilmore, J., Hurst, M., & Maher, M. (2009). *Professional identity development in teachers of science, technology, engineering, math and science and math education.* Paper presented at the Annual Meeting of National Association of Research in Science Teaching (NARST).

Laughbaum, E. D. (Ed.) (2000). *Hand-held technology in mathematics and science education: A collection of papers.* Columbus, OH: Teachers Teaching with Technology College Short Course Program @Ohio State University.

Litowitz, L. S. (2009). Addressing mathematics literacy through technology, innovation, design and engineering. *Technology Teacher, 69*(1), 19-22.

Martineau, P. (2009). Teaching with technology. *Education Digest, 74*(7), 14-18.

Masalski, W. J., & Elliott, P. C. (Eds.) (2005). *Technology-supported: Mathematics learning environments.* Reston, VA: National Council of Teachers of Mathematics.

Mitchell, B., Bailey, J., & Monroe, E. (2007). Integrating technology and a standards-based pedagogy in a geometry classroom: A mature teacher deals with the reality of multiple demands and paradigm shifts. *Computers in the Schools, 24*(1), 7 -91. doi:10.1300/ 02 v2 n01 06

National Council of Teachers of Mathematics. (2010, November). *Mathematics Teacher: Learning and Teaching Mathematics Through Technology*, *104*(4).

Oner, D. (2009). The role of dynamic geometry software in high school geometry curricula: An analysis of proof tasks. International Journal for Technology in Mathematics Education, 16(3), 109-121.

Norstrom, B. (2006). Mapping curriculum to ed tech and industry standards. Learning & Leading with Technology, 33 (6), 14-17.

Silk, E. M., Higashi, R., Shoop, R., & Schunn, C. D. (2010, December/January). Designing technology activates that teach mathematics. The Technology Teacher, 21-27.

Soucie, T., Radovic, N., & Svedres, R. (2010, April). Graphing calculators as tools. Mathematics Teaching in the Middle Schools, 15(8), 467--471.

Suh, J. M. (2010, April). Tech-knowledgy & diverse learners: When teachers know how to effectively use the unique features of computer applications, they can address the varying cognitive strengths and needs of different students. Mathematics Teaching in the Middle Schools, 15(8), 440-447.

Section II Appendix C

Cohen, D. (Ed.). (1995). *Crossroads in mathematics: Standards for introductory college mathematics before calculus.* Memphis, TN: American Mathematical Association of Two-Year Colleges.

Mireles, S. V. (2009, Spring). Math FOCUS: Fundamentals of conceptual understanding & success. *CASP News, College Academic Support Programs Biannual Newsletter*.

National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: Author.

Offer, J., & Vásquez-Mireles, S. (2009, January). Spotlight on Math FOCUS program. *CRLA NewsNotes, Newsletter of the College Reading and Learning Association*.

Texas Higher Education Coordinating Board. (2008). *Texas college and career readiness standards.* Austin, TX: Author.

Vásquez, S. (2003, Winter). Utilizing an algorithmic instructional technique in the developmental mathematics classroom. *Mathematics and Computer Education, 37*(1), 16-28.

Vygotsky, L. (1978). Interaction between learning and development. In *Mind and Society,* (pp. 79-91). Cambridge, MA: Harvard University Press.

Section II Appendix D

Baker, D. (1998). Numeracy as Social Practice. *Literacy And Numeracy Studies*, *8*(1), 37-51.

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.Singer, J., Lotter, C., Feller, R., & Gates, H. (2011). Exploring a Model of Situated Professional Development: Impact on Classroom Practice. *Journal Of Science Teacher Education*, *22*(3), 203-227.

Ryan, W. F. (1997). River Falls Mall Math Trails: Connecting Elementary Mathematics to the World.

Sokolowski, A., & Rackley, R. (2011). Teaching Harmonic Motion in Trigonometry: Inductive Inquiry Supported by Physics Simulations. *Australian Senior Mathematics Journal*, *25*(1), 45-53.

Workforce Development. Symposium 37. [Concurrent Symposium Session at AHRD Annual Conference, 2000.]. (2000).

Section II Appendix E

Blair, R. (Ed.). (2006). *Beyond crossroads: Implementing mathematics standards in the first two years of college.* Memphis, TN: American Mathematical Association of Two-Year Colleges.

Boylan, H. R. (2002). *What works: Research-based best practices in developmental education*. Boone, NC: Continuous Quality Improvement Network & National Center for Developmental Education.

Boylan, H. R., Bonham, B. S., & Bliss, L. B. (199). "Who are the developmental students?". *Research in Developmental Education, 11*(2), 1-4.

Cohen, D. (Ed.). (1995). *Crossroads in mathematics: Standards for introductory college mathematics before calculus.* Memphis, TN: American Mathematical Association of Two-Year Colleges.

Johnson, D. W. & Johnson, R. T. (1991). *Learning mathematics and cooperative learning: Lesson plans for teachers.* Edina, MN: Interaction Book Company.

Krantz, S. G. (1999). *How to teach mathematics* (2nd ed.). Providence, RI: American Mathematical Society.

MacDonald, L., Vásquez, S., & Caverly, D. C. (2002, Winter). Techtalk: Effective technology use in the developmental mathematics classroom. *Journal of Developmental Education, 26*(2), 36-37.

National Council of Teachers of Mathematics (NCTM). (2000). *Principles and standards for school mathematics*. Reston, VA: Author.

Trujillo, K. M., & Hadfield, O. D. (1999, June). Tracing the roots of mathematics anxiety through in-depth interviews with preservice elementary teachers. *College Student Journal, 33*(2), 219 – 233.

Vásquez, S. (2000). Calculator usage in developmental mathematics. *Research in Developmental Education, 15*(5), 1-4.

Vásquez, S. (2004, Spring). A report on the effectiveness of the developmental mathemat- ics program M.Y. Math Project – Making your mathematics: Knowing when and how to use it. *Mathematics and Computer Education*, 38(2), 190-195.

Vásquez, S. (2003, Winter). Utilizing an algorithmic instructional technique in the developmental mathematics classroom. *Mathematics and Computer Education*, 37(1), 16-28. Vásquez, S., & McCabe, T. W. (2002). The effect of calculator usage in the learning of basic skills. *Research and Teaching in Developmental Education*, *19*(1), 33-40.

Section II Appendix F

Cohen, D. (Ed.). (1995). *Crossroads in mathematics: Standards for introductory college mathematics before calculus.* Memphis, TN: American Mathematical Association of Two-Year Colleges.

Common Core State Standards Initiative (CCSSI). 2010. *Common Core State Standards for Mathematics*. Washington, DC: National Governors Association Center for Best Practices and the Council of Chief State School Officers.

National Council of Teachers of Mathematics (NCTM). 2000. *Principles and Standards for School Mathematics*. Reston, VA: NCTM.

Texas Higher Education Coordinating Board (THECB). (2008). *Texas college and career readiness standards*. Austin, TX: Author.

Section II Appendix G

Barrows, H. S. (2002). Is it truly possible to have such a thing as dPBL? *Distance Education, 23(1),* 119-122. doi:10.1080/01587910220124026

Biswas, R. (2007). *Accelerating remedial math education: How institutional innovation and state policy interact.* Boston, VA: Job for the Future.

Brooks, J. G., & Brooks, M. G. (1993). In search of understanding: The case for constructivist classrooms. Alexandria, VA: Association for Supervision and Curriculum Development.

Cohen, D. (Ed.). (1995). *Crossroads in mathematics: Standards for introductory college mathematics before calculus.* Memphis, TN: American Mathematical Association of Two-Year Colleges.

Graeber, A. O., Valli, L., & Newton, K. (2011). *Upper Elementary Math Lessons: Case Studies of Real Teaching*. Blue Ridge Summit, PA: Rowman & Littlefield Publishers, Inc.

Handal, B., & Bobis, J. (2003). Instructional styles in the teaching of mathematics thematically. *International Journal for Mathematics Teaching and Learning.* Retrieved from http://www.cimt.plymouth.ac.uk/journal/handalbobis.pdf

Herbel-Eisenmann, B. A., & Otten, S. (2011). Mapping Mathematics in Classroom Discourse. *Journal For Research In Mathematics Education*, *42*(5), 451-485.

Hodara, M., & Columbia University, C. (2011). *Reforming Mathematics Classroom Pedagogy: Evidence-Based Findings and Recommendations for the Developmental Math Classroom. CCRC Working Paper No. 27. Assessment of Evidence Series*. Community College Research Center, Columbia University.

National Council of Teachers of Mathematics (NCTM). (2000). *Principles and standards for school mathematics*. Reston, VA: Author.

Serdyukov, P. (2008). Accelerated learning: What is it? *Journal of Research in Innovative Teaching, 1*(1), 35-59. Retrieved from http://www.nu.edu/OurPrograms/ResearchCouncil/The-Journal-of-Research-in-Innovative-Teaching.html

Spradlin, K. (2009). *The effectiveness of computer-assisted instruction in developmental mathematics* (Doctoral dissertation). Retrieved from http://digitalcommons.liberty.edu/doctoral/221/

Texas Higher Education Coordinating Board (THECB). (2008). *Texas college and career readiness standards.* Austin, TX: Author.

The Access Center. (n.d.). *What is the concrete-representational-abstract approach?* Washington, DC: Author. Retrieved from http://www.k8attccesscenter.org/training_resources/CRA_Instructional_Approach.asp

Vygotsky, L. (1978). Interaction between learning and development. In *Mind and Society,* (pp. 79-91). Cambridge, MA: Harvard University Press.

Section II Appendix H

Strand 3 of 14: Number Line and Grids[3][4]					
Benchmarks: As learners progress across levels, benchmarks become more challenging and are completed with increasing independence.					
Level 1 Beginning Adult Basic Education Literacy	**Level 2** Beginning Adult Basic Education	**Level 3** Low Intermediate Adult Basic Education	**Level 4** High Intermediate Adult Basic Education	**Level 5** Low Adult Secondary Education	**Level 6** High Adult Secondary Education
3.1 • Plot natural numbers on a horizontal number line	3.2 • Plot natural numbers on a horizontal number line	3.3 • Plot points in Quadrant I of a coordinate grid. • Read and understand integers (positive and negative numbers) as showing direction and change on both horizontal and vertical number lines.	3.4 • Plot points in all four quadrants of a coordinate grid.	3.5 • Identify positive and negative slopes on a coordinate grid. • Graph linear equations.	3.6 • Find slope and distance on a coordinate grid.
Examples  • Plot the first five days of the week using the number line.	Examples • Plot the daily temperature on a vertical number line over a set period of time.	Example • Plot age and weight of their children on a growth chart..	Examples • Plot the path of hurricanes based on given coordinates.	Examples • Given this equation: y = 3x + 2 What is the slope of the line?	Example • Given the points (0,2) and (3.4), find the slope of a line.

Texas CCRS

I. Numeric Reasoning
A. *Number representation*
1 Compare real numbers.
a. Classify numbers as natural, whole, integers, rational, irrational, real, imaginary, and/or complex.
b. Use and apply the relative magnitude of real numbers by using inequality symbols to compare them and locate them on a number line.
c. Order real numbers with and without a calculator using relationships involving decimals, rationals, exponents, and radicals.
d. Represent any rational number in scientific notation.

II. Algebraic Reasoning
D. *Representations*
2 Translate among multiple representations of equations and relationships.
a. Explain the common information presented in multiple representations of a relationship.

TOPIC

- Ask if anyone knows how to say "line" in another language.
- Ask the students to first brainstorm ideas that come to them when you say the word "line."
- Then have them find these ideas in the text.
- Some ideas to discuss include…
- Ask the students to develop a concept map that summarizes these terms. One clear link is the 'real number line' in that it connects geometry and algebra.

[3] Texas Center for the Advancement of Literacy and Learning (TCALL) (2008). Texas adult education content standards and benchmarks for ABE/ASE and ESL learners: Implementation Guide
[4] The *Texas Adult Education and Literacy (AEL) Content standards* are currently being revised (2016) for use in the 2016-2017 academic year.

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Section III

Designing, Implementing, and/or Refining a Learning Frameworks Course or Intervention in Adult and Postsecondary Education

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Section III

Designing, Implementing, and/or Refining a Learning Frameworks Course or Intervention in Adult and Postsecondary Education

The purpose of this curriculum framework is to describe major components of a learning frameworks course in adult transition, education and post-secondary settings. This document is a guide for educators interested in designing and/or teaching a learning frameworks course. It can also provide guidance to educators who want to incorporate components of a learning frameworks curriculum into college transition programs, college success courses; basic skills courses in reading, writing, and/or mathematics; content-area courses (e.g., courses in chemistry, history, English literature, etc.); student success workshop series; advising programs; counseling programs; tutoring programs; and supplemental instruction programs. This curriculum guide includes the following sections:

- Overview
- Conceptual Foundation: The Model of Strategic Learning (MSL)
- Designing a Learning Frameworks Course: Administrative Issues
- Designing a Learning Frameworks Course: Curricular Issues
- Using Effective Instructional Methods for Teaching Learning Strategies
- Section III Figure 1: Model of Strategic Learning
- Section III Appendix A: Selected Resources and Materials for a Learning Frameworks Course
- Section III Appendix B: Example Learning Frameworks Course Schedule for a 15-Week Three-Credit Course (assuming the class would meet 3 times per week for 50 minutes)
- Section III Appendix C: Example Learning Frameworks Course Schedule Adapted for an 8-Week Course (assuming the class would meet 3 times per week for 50 minutes)
- Section III Appendix D: Skill Exemplars
- Section III Appendix E: Will Exemplars
- Section III Appendix F: Self-Regulation Exemplars
- Section III Appendix G: Description of the Learning and Study Strategies Inventory (LASSI)

Overview

First, we will discuss the nature of a learning frameworks course, its role in adult and post-secondary education, and how the content is related to the Texas College and Career Readiness Standards (TCCRS). The following subsections cover each of these points. Please note that theories and research that underlie many of the ideas in this document are referenced and discussed in more detail within our previous work (e.g., Weinstein & Acee, 2012; Weinstein, Acee, & Jung, 2010). *Section III Appendix A* also includes other reviews of theory and research that underlie learning frameworks curriculum (see Hodges & Agee, 2009; Schunk, Pintrich, & Meece, 2008; Zimmerman, & Schunk, 2011).

What is a Learning Frameworks Course?

Learning frameworks courses teach students the cognitive, metacognitive, motivational, affective and behavioral knowledge and processes that underlie effective learning and memory in varied educational settings. The primary goal of a learning frameworks course is to help students develop and/or enhance their own learning processes so they can reach their academic and career goals. Other terminology used for learning frameworks courses include: strategic learning courses,

learning strategies courses, and learning-to-learn courses. Learning frameworks courses are much more comprehensive than study skills courses. As Hodges & Agee (2009) noted, "unlike study skills courses that teach students specific techniques and methods in isolation, learning framework courses focus on why and how human learning can be enhanced" (p. 3 7).

Successful learning frameworks courses incorporate multiple components from each of the areas that significantly contribute to learning: cognition, metacognition, motivation, affect, and behavior (Weinstein & Acee, 2012). For example, they emphasize learning strategies that students can use to improve how effectively and efficiently they acquire, remember, and apply new information. They also help students learn about the attitudes, beliefs, and goals that can underlie their motivation for learning and guide them in using strategies to generate academic/achievement motivation. Learning frameworks courses are also designed to help students take responsibility for their own learning, and they emphasize strategies students can use to self-manage their thoughts, feelings, and behaviors in the pursuit of learning and achievement goals. Finally, learning frameworks courses also include topics and activities designed to help students successfully navigate, utilize, and integrate into the academic environments at their institution. This document will help guide educators in building these essential components into their own learning frameworks curriculum.

How Do Learning Frameworks Courses Fit Into Adult and Postsecondary Education Programs?

Teaching students how to read and write across disciplines and reason mathematically are vital to students' educational success, employability, and upward mobility. However, content knowledge and skills in these areas are not sufficient to succeed in adult education programs, postsecondary educational settings, and future employment contexts. Students' also need to become more strategic and self-regulated learners. Many students entering adult and postsecondary education programs have never been taught how to study and learn effectively, and many of these students use study methods that are ineffective or not very efficient. Learning frameworks courses are thus an important component, along with basic skills courses, to adult education programs, vocational education programs, postsecondary education transition programs, developmental education programs, and other college success initiatives. This document will help guide educators in developing a learning frameworks curriculum to implement within their program.

How are Learning Frameworks Courses Related to the Texas College and Career Readiness Standards?

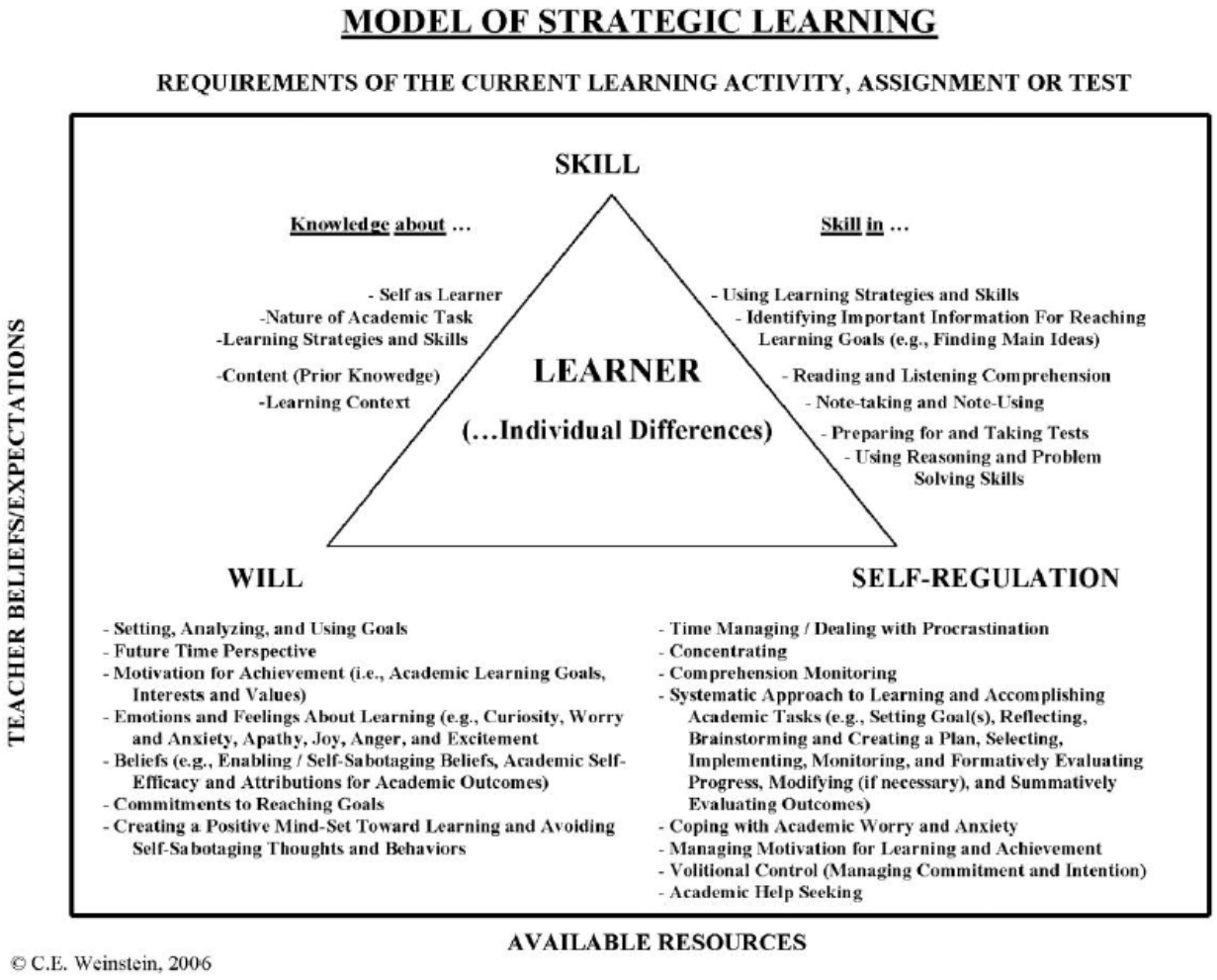
There is not a direct link between learning frameworks courses and the Texas College and Career Readiness Standards (TCCRS). That is, there are not standards in the TCCRS for learning frameworks like there are for English/Language Arts and Mathematics. However, there is a tremendous amount of overlap between the Cross-Disciplinary Standards (CDS) of the TCCRS and learning frameworks curricula. A learning frameworks course can thus help educators meet many of the Cross Disciplinary Standards. For example, a common goal of learning frameworks courses is teaching students to self-manage their use of learning strategies to help them learn more effectively and efficiently. This corresponds with many of the ideas addressed under the Key Cognitive Skills section of the CDS, and in particular Section I.D.2 of the CDS which states, "Use study habits necessary to manage academic pursuits and requirements." Another example of the overlap between a learning frameworks curriculum and the CDS relates to the application of learning across disciplines. A common objective of learning frameworks courses is to help students transfer their knowledge and skills about effective learning across tasks, courses, and disciplines. Teaching students to transfer their learning across disciplines is also at the core of the CDS. Many of the recommendations in this document will encourage educators to require their students to apply what they are learning in learning frameworks courses or other types of interventions across disciplines.

Conceptual Foundation: The Model of Strategic Learning (MSL)

A hallmark of learning frameworks courses is that they teach students research-based conceptual models for understanding how learning works. Having a model helps students to organize the various strategies and skills they are learning, understand the relationships among them, and choose which strategies and skills to use for different tasks and goals. There are a number of theoretical models that are worthwhile to teach students such as: information processing models, attitude-behavior models, and models of self-regulation. However, it would be beyond the scope of a learning frameworks course to teach students the nuances of each of these theoretical models and the research that supports them. Instead, learning frameworks instructors should teach students the core ideas that will be useful for them as they actively work to improve how they study and learn. The Model of Strategic Learning (MSL) highlights key concepts to teach students and organizes them within one conceptual model that both builds on and adds to previous or more restricted models of learning. The MSL is an appropriate model to teach students in a learning frameworks course because it contains, all in one model, many of the core ideas from theory and research on student learning and it is presented in an easy-to-understand way. Furthermore, the MSL has corresponding online instructional modules (Becoming a Strategic Learner: LASSI Instructional Modules; Weinstein, Woodruff, & Awalt, 2002) students can use to improve in many of the areas specified within the MSL and a diagnostic/prescriptive assessment (the Learning and Study Strategies Inventory, LASSI; Weinstein, Palmer, & Schulte, 2002) that can help students and instructors identify areas of strength and those areas where students would benefit from improvement.

For the purposes of this document, we will use the MSL as our guiding conceptual framework. The MSL is useful for guiding educators in designing, implementing, and refining learning frameworks curriculum. For example, by examining the graphic of the Model of Strategic Learning (see *Figure 1*) you can get an idea of the various elements that might be worth addressing in your learning frameworks curriculum. Notice that these elements are organized under four major components of the MSL: Skill, Will, Self-regulation, and the Academic Environment (located on the outer part of the rectangle). These four major components organize the cognitive, metacognitive, affective, motivational and behavioral factors contributing to learning. To be included in the model, each element under the components had to meet four criteria: (a) there had to be research indicating that the element related to academic success, (b) the relationship had to be causative, (c) it had to account for meaningful improvements in students' success, and (d) it had to be amenable to an educational intervention so that it could be taught to students (this is why personality variables were not included in the model). The Model of Strategic Learning is a synergistic model – the whole is greater than the sum of the parts. Improvements cannot often be traced to individual elements because it is the interaction among elements from different components that results in effective and efficient learning. The following sections provide an overview of the four major components of the Model of Strategic Learning. Sample elements will also be discussed.

Section III Figure 1



Skill

The Skill Component of the MSL emphasizes knowing what to do to be a successful learner and how to use specific learning and study strategies to reach achievement goals. For example, if a mother's 1 -year old son approached her with a plea to take her new car for a spin without adult supervision, the mother would likely, hopefully, say no. The earnest son may explain that he knows how to drive. He knows that the gas pedal makes the car move, the break makes it stop, the steering wheel makes it turn, etc. In truth, the son may know what to do but the problem is that he probably does not know how to do it. Learning to drive also involves developing procedural skills and this is why practice, preferably guided practice with feedback, is so critical. Basic, declarative, knowledge about driving is necessary but it alone is not enough. The same is true with learning. Students may know that it is important to use deep-level learning strategies such as summarizing, teaching the material to someone else, and creating graphic organizers; however, they may not know how to use these strategies effectively and efficiently. This is why it is so important to not only teach students about these strategies but also to have them practice using these strategies and provide them with feedback on how to improve. For this reason, the Skill component of the MSL is divided into two sub-components "knowledge about…" and "skill in…," both of which are important to teach students (see *Figure 1*). The Skill component of the MSL highlights a number of areas that educators could potentially target in their learning frameworks course. Although helping students to improve in these

areas is critical, only building students' skill is not enough to facilitate successful learning. For example, there are many students who possess the necessary skills to reach a high level of performance in a course but instead perform poorly because they lack motivation. It is not enough to know how to learn, students must also want to learn.

Will

The Will component of the MSL emphasizes the "wanting to" of learning. Will refers to the culmination of many factors that help to focus and energize a student to do the work that is necessary for academic success. Students' will is reflected in the choices they make, the level of effort they exert, and the degree to which they persist in the face of difficulty. Furthermore, these outcomes (students' choices, effort, and persistence) are directly influenced by psychological variables such as their attitudes, beliefs, and both short-term and long-term goals. Therefore, in order to help students increase and/or maintain their motivation, educators must focus on helping students to modify their preexisting attitudes, beliefs, and goals so that they are less self-sabotaging and more facilitating. The Will component of the MSL (see Figure 1) highlights many of the attitudes, beliefs, and goals that educators could potentially target in their learning frameworks course such as: interests, values, self-efficacy beliefs, attribution beliefs, goal setting, goal analysis, and goal using. Helping students to improve their skill and will is necessary for their academic success; however, helping students in these two areas is not sufficient. They must also learn to self-regulate, or self-manage the coordination and implementation of the knowledge, strategies, and skills they are learning in their learning frameworks course to help them reach their learning goals in their other courses or workforce training settings.

Self-Regulation

The Self-Regulation component of the MSL emphasizes processes for managing and regulation elements from the Skill and Will components, as well as developing systems and procedures for successful completion of academic tasks (see *Figure 1*). For example, students do not have unlimited time to complete academic tasks such as taking a test, completing a paper or providing information to the other members of their study group. They need to learn time management procedures to help them complete all of these tasks in a timely fashion. Self-regulation also involves using systematic approaches to developing and using learning strategies included under the Skill component of the MSL. For example, it does not make sense for a student studying a chapter in a math textbook to approach each chapter as a totally new learning task. Using a systematic approach to developing strategies that help the student to learn the material in this text would be more effective and efficient. Reflecting on what they know about themselves as a math student, selecting specific strategies to use while reading the textbook, monitoring their success and modifying their strategies, if necessary, and summatively evaluating their success will help them to develop routines for studying their math textbook that they can use for the rest of the course assignments. The next time they read a chapter, they will have a much better idea of which strategies did not work for them and which strategies helped them succeed. Self-regulation is also important for the elements of the Will component of the MSL. For example, students who experience high levels of anxiety about taking a math test (or even a math course) have trouble focusing their attention on the task at hand. Instead, they focus on worrying about negative outcomes and consequences. This blocks them from focusing on the test or listening effectively in class. Learning how to cope with anxiety can free the mental resources of these students so they can focus on the task. Learning to regulate and modify negative attitudes and beliefs is another important part of self-regulation. For example, if students believe that they cannot "do math," the intelligent response is not to try. If you "know" you cannot do it, putting any effort into the task makes no sense. Learning about the self-regulatory processes involved in creating study routines, monitoring and regulating one's use of learning strategies, managing one's time, generating motivation, and modifying self-sabotaging beliefs are important elements in the Self-

Regulation Component of the MSL. There are common self-regulatory phases that students must cycle through in order to exercise control over their Skill and Will. These phases involve planning, implementing, and evaluating their use of strategies to regulate their skill and will. *Section III Appendix D* provides a systematic approach that students can use to self-regulate their thoughts, feelings, and behaviors in the pursuit of learning and achievement goals.

Although Skill, Will and Self-Regulation focus on important elements of strategic and self-regulated learning, it is important to note that learning does not occur in a vacuum. The Academic Environment is a fourth component of the MSL.

Academic Environment

Unlike the other components of the MSL, the Academic Environment is usually not under the student's control. However, it is important that students develop knowledge about elements within the academic environment so they can understand both the restraints and the opportunities it provides. For example, different instructors often have different expectations for successful performance on exams, papers, class participation and other course requirements. Students need to identify these expectations so they can use elements from the Skill and Self-Regulation components to adjust their study efforts appropriately. Learning how to take advantage of available resources for facilitating learning and dealing with comprehension problems is another important element of the Academic Environment component of the MSL. Most adult learning and post-secondary educational settings provide student support services such as learning centers, tutoring centers, reading and math labs, and advising/counseling resources. It is very helpful for students to know about these resources and the services they provide so they can access them if they encounter difficulties with elements from the other three components. Another element in the Academic Environment component is knowing about and using social context and support to help achieve academic success. Getting to know a couple of students in each of your classes, forming or joining study groups, turning to friends and family for emotional support are all examples of ways students can use their social environment of the social environment of their institution to help them strategically focus their efforts and succeed. Finally, understanding the requirements of different academic tasks and how to prepare for them is another important element of the Academic Environment component of the MSL. For example, students need to know how to write a paper and what is required for the papers in each of their classes. They need to be clear about what material from a course they will be expected to know for an exam and what type of exam they will be taking: short-answer test, essay test, performance test etc. Knowledge about the elements of the Academic Environment can be used to strategically navigate, utilize, and integrate into the academic and social environments of their learning context.

Individual Differences

As in other academic areas, individual differences are an important aspect of strategic learning. All students come to transition programs, adult basic education and post-secondary education with prior learning experiences and preferences, knowledge, reasoning and thinking patterns, beliefs about themselves as learners, study habits, motivations, and attitudes about learning and the value of education. Some of these factors can be facilitative for strategic learning and some can be debilitative for strategic learning. The implications of this for a learning frameworks course are that students will have different areas of strength and different areas of weakness. Diagnostic/prescriptive assessments, like the Learning and Study Strategies Inventory (LASSI; Weinstein, Palmer, & Schulte, 2002) and Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1991), can be used to help students and instructors focus their efforts on areas needing improvement. Students also have individual preferences in which strategies work for them for different tasks in different content areas. For example, a student might find that in a class they really enjoy, covering content for which they have prior knowledge, reading a textbook

chapter and stopping periodically to paraphrase the content and answer the chapter review questions is sufficient to learn new material. However, for a student who may not enjoy the class and has little or no prior knowledge of the content, they may have to use elaboration and organizational strategies, study buddies or groups, and/or a tutor to help them reach their learning goals. The student who had an easy time learning in one class may have had to use all of these resources for a different class in which the student had a difficult time because of his/her low interest and lack of prior knowledge. This is why it is so critical to teach a repertoire of learning strategies to students so they have a "tool box" they can use depending on the task demands, their skill level, their motivation level, and their self-regulation skills.

Characteristics of a Strategic Learner

- Goal-directed
- Creates effective and efficient learning plans
- Uses effective and efficient learning strategies
- Monitors and evaluates their learning goals, plans, strategies, and outcomes
- Learns from their mistakes and their successes
- Active manager of the learning process

Conceptions Underlying the Model of Strategic Learning

The MSL emphasizes factors contributing to academic achievement that are under students' direct control and that can be enhanced through a learning frameworks course or other types of educational interventions. Learning successes and failures are not viewed as merely the result of a student's level of intelligence or their prior achievement in the same content area. Instead, students are believed to have the capacity to meaningfully learn course material and succeed academically when they develop and use effective and efficient learning strategies and methods from the Skill, Will and Self-Regulation components. It also stresses the importance of developing and using knowledge of the academic environment even though the elements are normally outside of students' direct control.

In the MSL learning results from interactions among elements from the four components. For example, a student's improvements in the Skill component can affect his or her motivation and vice versa. To illustrate, when students begin using more effective learning strategies they often perform better on their academic tasks which, in turn, motivates them to continue to exert strategic effort so they can do well on future assignments. In a reverse fashion, when students are motivated to learn the material in a course they are more likely to learn and use effective leaning strategies. For this reason, the MSL assumes that a student's learning successes and failures are produced by complex interactions among the many elements specified within the model, and thus cannot often be traced back to a single element. That is, when it comes to learning, the whole is bigger than the sum of its parts. This is why, as you will read in the following sections, we recommend that your learning frameworks curriculum address students' skill, will, self-regulation, and the academic environment.

Designing a Learning Frameworks Course: Administrative Issues

Deciding on an Appropriate Course Length and the Amount and Types of Material to Cover

It would be unrealistic to expect a student to significantly improve their skill, will, and self-regulation overnight, or even within one or two weeks. Becoming a more strategic and self-regulated learner requires a substantial amount of time and effort on the part of the student. For example, students need time to learn and test the effectiveness of new learning strategies across different tasks and courses. Similarly, generating more positive attitudes and beliefs about oneself as a learner takes a significant amount of time and effort on the part of the student. It is critical that educators develop

learning frameworks courses that have the length and intensity necessary for students to become more effective and efficient learners. At first it may even be more difficult to impact student academic achievement because not only are students trying to learn the material in a course, they are also trying to learn how to learn the material. The payoff comes over time as they develop better ways to study and learn and become more proficient and effective strategic learners.

There are no clear-cut answers for how long a learning frameworks course must be or precisely how much material it should cover. The most successful learning frameworks courses last an entire semester and cover 3 credits worth of material (approximately 37-45 contact hours with rigorous and challenging assignments and guided practice with informative feedback). An ideal implementation would involve some type of follow-up course or intervention that supported students in later semesters as they continue to improve and encounter new learning demands. This upper end of the spectrum of course length, amount of material covered and depth of the material covered can be implemented through one or more follow-up courses, workshops, supplemental instruction, and tutoring. However, not all institutions have the resources, personnel or opportunity to introduce a semester-long course. At the lower end of the spectrum of possible interventions, we suggest a learning frameworks course be no less than 5 weeks long and cover no less than 1 credit worth of material (approximately 12-15 contact hours with rigorous and challenging assignments and guided practice with informative feedback). This is not to say that it is pointless to teach a learning frameworks curriculum within a smaller time span or to cover less material than we recommend. Teaching students something about learning frameworks is better than ignoring these important contributors to learning altogether. Workshops, handouts, online instructional material and resources and other shorter/less intensive learning frameworks interventions can help inform students about important concepts and strategies that they can then learn to use on their own, or with the help of others (e.g., learning center staff, tutors, academic coaches, supplemental instruction leaders, and so forth). However, it is much more difficult for students to acquire and apply these approaches and strategies without the structure and support of a learning frameworks course.

Offering Course Credits, Continuing Education Units, and Other Incentives

In order to get students to actively participate in a learning frameworks course, you will likely need some form, or forms, of incentives to entice their participation. Without incentives to actively participate in and successfully complete the course, students are less likely to attend class, complete assignments, and learn the course material. This is why the most successful learning frameworks courses provide students with incentives to complete the course, such as: (a) continuing education units; (b) college credit towards their certificate or degree; (c) making the successful completion of the course a requirement for enrollment in a particular educational or training program; and (d) making stipends and other monetary incentives contingent upon course completion. This is also why many courses have attendance policies that can either add or subtract points depending on a student's attendance in class or during online chats and discussions.

Capping your Class Size

Successful learning frameworks courses tend to have small-to-medium class sizes (15-25 students). Helping students to become more strategic and self-regulated learners involves getting to know and understand them on an individual level; and, this is much more difficult to do in a larger course. Furthermore, successful learning frameworks courses rely heavily on class discussion, group work, and paired work so that students can learn from each other's experiences and points of view. Smaller classes tend to be more conducive to building community among students and helping them to feel comfortable sharing and learning from each other. Smaller classes are also important because learning frameworks courses emphasize application and require instructors to give extensive informative feedback on multiple assignments. Guided practice and informative feedback are critical

for teaching strategies, particularly when they need to be adapted to individual differences in knowledge, ability and learning experiences. This is not to say that it is impossible to run an effective learning frameworks course with high enrollments, it is just that there are currently not strong examples of how this might be accomplished. If possible, limit class size to 15-25 students.

Deciding on a Course Delivery Method

Most learning frameworks courses are face-to-face, some are blended (or hybrid), and very few are completely online. Accordingly, our understanding about the effectiveness of online learning frameworks courses is limited. There are, however, several documented advantages of using blended delivery methods with learning frameworks courses (Weinstein & Acee, 2012). In blended courses, students have both face-to-face and online requirements. One advantage of having students complete some course material online is that the instructor can devote more class time to class discussion, group work, paired-work, and independent activities with instructor assistance. One concern with online delivery methods is that students must possess the computer access and computer skills necessary to complete the online work. A number of students, especially students in adult education programs, may lack these basic requirements for full participation in an online course. Another concern is that online courses require a higher level of self-regulation on the part of the student in order to keep up in a learning environment that is more self-paced.

Requiring Enrollment in another Course

Learning frameworks courses are designed to help students apply the content and strategies they are learning to a variety of academic tasks, courses, and disciplines. It is, therefore, important that students are required to enroll in at least one other course so they can apply the strategies they are learning to authentic tasks in another course or courses. This is not achievable in some bridge programs but should be done whenever possible.

An excellent way to have students enroll in another course while they are taking a learning frameworks course is the use of paired courses. Paired courses involve having students co-enroll in two courses. For example, all students in a learning frameworks course may be required to simultaneously enroll in an integrated reading and writing course, or a developmental math course, or an introductory science or history course. Paired courses are more effective when the instructors of each course work together to help students integrate ideas across the two courses. For example, in a learning frameworks course that is paired with a certificate course in heating, ventilation, and air conditioning (HVAC), the instructor of the learning frameworks course might build in lessons to teach learning strategies that are particularly relevant to HVAC, such as: comparing and contrasting; creating a flow chart, or other graphic organizer, that depicts an electrical or other physical process; applying general principles to authentic, real-world tasks; and using elaboration strategies to make connections between new information and students' prior knowledge about HVAC. Furthermore, both instructors might have class discussions, group activities, and assignments focused on integrating the content among the two courses.

The main point is that it is critical to have students simultaneously enrolled in another course when they take a learning frameworks course so that they can apply what they are learning. Paired courses can be very effective, but your decision about whether or not to develop a paired course will depend on the specific needs of your students and the logistical obstacles that might arise in trying to pair two courses at your institution.

Creating a Learning Frameworks Team

When planning, developing, implementing, and revising a learning frameworks course, it is important to include and work collaboratively with instructors, administrators, student affairs and learning assistance specialists and other staff who have knowledge about and a stake in the students

you serve. This group of stakeholders could help develop curriculum and pedagogy, advertise the course and recruit students to enroll, evaluate the effectiveness of the course, define how the course fits within your program and the institution at large, and fund and expand the reach of your course. If you offer multiple sections of your learning frameworks course and hire multiple instructors, then it will be critical to coordinate these instructors and hold regular instructor meetings for course management, idea-sharing, problem-solving, creating assessments and providing feedback. To the extent possible, use the same or similar curriculum and assignments across course sections and work collaboratively with the instructors to design and refine this curriculum. If you decide to have a paired learning frameworks course, where students co-enroll in another course, it will also be important to work with the instructors of the paired course.

It will be critical to work closely with the administrator of your program so that he/she understands the purpose of your learning frameworks course and how it fits within the larger mission of your program. Academic advisors and counselors are important to bring on board so they can help to inform students about your course and possibly participate in your course development and instruction. Someone should also be responsible for collecting data to examine the effectiveness of your learning frameworks course. You can use this data to inform the changes you make to the course over time and also so you can build a case for your course's success. Bringing together and orchestrating the people involved in your learning frameworks course community will likely take time, so it is important to start small, build your core, and then reach out to other stakeholders. In sum, we suggest you work collaboratively with a group of instructors, administrators, and staff to help inform the development, implementation, and ongoing refining of your learning frameworks course.

Designing a Learning Frameworks Course: Curricular Issues

Generating a Course Purpose and Description

The most encompassing purpose for learning frameworks courses is to teach students the cognitive, metacognitive, motivational, affective and behavioral knowledge and processes that underlie effective learning and memory in varied educational settings. The primary goal of a learning frameworks course is to help students develop and/or enhance their own learning processes so they can reach their academic and career goals. This involves teaching students conceptual frameworks for how learning works and guiding them in becoming more strategic and self-regulated learners across various academic tasks, courses, and disciplines. The specific goals of your learning frameworks course will depend on the reasons you have for developing the course and the needs of the students the course will serve. For example, if like many adult education students, your students tend to struggle with balancing their family, work, academic, and social commitments, you may need to place special emphasis on strategies for time managing and goal prioritizing. Unfortunately, the amount of material you can cover in any one course is limited; therefore, you will need to carefully decide on the breadth and depth of topics that you will cover. This document will help guide you in selecting course topics and assignments for your course, and as you make these decisions the purpose of your course will become clearer. It is often useful to write and continue revising a brief statement describing your course and its general purpose. You may find that the mission statement you write at the beginning of the process of planning and developing a learning frameworks course or intervention is different from the one you write after creating it. This is not at all uncommon.

Using Appropriate Course Content

It is important that you incorporate course content that is rooted in theory and research on student learning. There are a number of textbooks and online resources on learning frameworks. Before adopting materials for your course, we advise you to examine the creditability of the sources, their author's qualifications, and scrutinize them in comparison with other learning frameworks materials.

There are a number of useful materials out there, some of which are listed in *Section III Appendix A*. We included the references to a few that we believe cover many of the important concepts put forth by theory and research on student learning, such as the Model of Strategic Learning.

Choosing Course Topics to Cover and the Depth of Coverage

The course topics you decide to cover and the emphasis you place on them will depend on the general purpose and specific goals of your learning frameworks course. We recommend, however, that you include at least some topics from each of the four components of the MSL: Skill, Will, Self-regulation, and Academic Environment (see *Figure 1*). The reason for this is because successful learning involves interactions among elements from these components. A number of textbooks and other curricula on learning frameworks will address topics that fit under these four areas. So, you should be able to follow this recommendation whether or not you decide to use the MSL and its corresponding online modules and LASSI assessment in your learning frameworks course.

We do, however, recommend that you teach students an overarching conceptual framework (e.g., the MSL) that students can use to help organize and synthesize course topics and concepts. This overarching conceptual framework should be a course topic but you should also use it to integrate and organize the topics throughout your learning frameworks course. In addition, it is important to address many of the basic principles and concepts put forth in the MSL such as: students being able to increase the likelihood of their academic success by using more effective and efficient learning strategies; the importance of differentiating between what is under students' direct control and what is not; academic success being tied to the interactions among students' skill, will, self-regulation, and the academic environment; etc. See the earlier section on the MSL for a more detailed discussion.

There are three other areas that we recommend you always build into your course. These include: course expectations, building community, and strategic learning assessments. It is important that you spend time going over and explaining your reasoning behind the expectations you have for students enrolled in your course. Furthermore, these expectations should be clearly outlined in your syllabus. Building in discussions and activities designed to help your students build community with each other is also helpful. This is particularly important in the first days of class but is also useful to reemphasize throughout the semester. Merely administrating strategic learning pretests and posttests is not enough. You should take time to explain the purpose of these assessments, share and discuss the results with students, teach them how to use the information so they can be strategic in their efforts, and ask students to reflect on their pretest results as well as their changes from pretest to posttest.

Section III Appendix B shows a schedule of course topics and assignments for a highly successful learning frameworks course offered at the University of Texas at Austin. The course topics listed address the four components of the model of strategic learning, course expectations, community building, and strategic learning assessments. Note, however, that this example is for a course that is worth three academic credits and is one semester in length. In a shorter course, you would have to remove some of the course topics listed in this example and/or deemphasize certain topics more than others.

Section III Appendix C is an example of an 8-week schedule of course topics and assignments. We developed this course schedule to illustrate how you might use *Section III Appendix B* to create a course that is approximately half as long and covers approximately half of the amount of material as a semester-long, 3-credit course.

Although every element within the MSL is important and potentially worth addressing, there are several elements under the skill, will, and self-regulation components that we believe are particularly important to emphasize. Accordingly, in *Section III Appendices D-F*, we address these elements in more detail and provide suggestions for activities you can use with your students. Under Skill (*Section III Appendix D*) we emphasize learning strategies for information processing. Under Will (*Section III Appendix E*) we address self-efficacy beliefs and attribution beliefs. Under Self-

regulation (*Section III Appendix F*) we address using a systematic approach to learning. Other elements related to strategic learning that we believe are important to address with adult education students, but that are not discussed in Appendices D-F, include: five types of knowledge and note-taking strategies (elements under the Skill Component); goal setting, prioritizing and using (elements under the Will Component); and time managing and coping with anxiety (elements under the Self-regulation Component).

There may also be a number of other course topics that you want to include in your learning frameworks course that would typically be covered in an orientation or first-year experience course such as: orientation information, review of a student handbook, campus tours, assistance with financial aid, and life skills instruction. You may also want to integrate learning frameworks curriculum with course topics that would typically be covered in a basic skills course in reading, writing, or mathematics. Addressing all of the course topics that would fit within these other course models goes beyond the scope of this document, but it is important to note that, depending on the purpose of your course, it might be worthwhile for you to integrate learning frameworks curricula with these other areas or through paired courses.

Developing Effective Assignments and Activities

Based on the course topics you target in your course, you will need to develop activities and assignments that correspond to these topics. *Section III Appendices D-F* highlights specific elements within the Skill, Will, and Self-regulation components of the MSL that we believe would be important to emphasize. *Section III Appendices D-F* also contains suggested activities for instructors to use with their students.

In addition to the activities in *Section III Appendices D-F*, there are several, more general, types of activities that we suggest you develop further and incorporate into your learning frameworks course. They are as follows:

- Learning Autobiography: ask students to reflect on and describe previous learning experiences and identify their areas of strength and areas needing improvement.
- Authentic Application: ask students to apply learning strategies to authentic academic, occupational, or personal learning tasks.
- Course-Specific Application: ask students to apply strategic learning concepts to another course they are currently enrolled in. If they are not enrolled in another course, let them do it for your course.
- Online Modules: ask students to write a summary of the main ideas of the module and complete some or all of the activities embedded within the online learning module outside of class.
- Exams and quizzes: have students take exams or quizzes on your learning frameworks course content, emphasizing understanding, application and transfer.
- Summative Reflection: ask students to reflect on their development as a strategic learner over the span of the course.
- Forward Projection: ask students to set goals and plan for how they will become a more strategic learner after the course is over.

Implementing an Attendance, Punctuality, and Participation Policy

Research has shown that many students in learning frameworks courses have problems with motivation and self-regulation. This does not change when they take a learning frameworks course (at least at the beginning). Students will be less likely to attend class and participate in a meaningful way if you do not have an attendance, punctuality, and participation policy. Successful learning frameworks courses often require students to come to class on time and actively participate. If

students are not in class, they miss the most important aspect of strategy instruction – guided practice and feedback. Course points are lost for absences, tardiness, and lack of participation; or, course points are earned for attendance, punctuality, and active participation. It is important that you clearly convey these course expectations to students in your syllabus and during class. You may also reinforce these expectations by having them sign a student expectation agreement.

Administering Strategic Learning Pretests and Posttests

Assessments of strategic learning can help your students learn more about themselves as learners and help you learn more about both your students and the effectiveness of your instruction. Students' self-awareness of their preexisting strengths and weaknesses can help them build on their strengths and hone in on areas where they need to improve. Information from strategic learning assessments can also help you individualize instruction for specific students and it can also help you target areas in your instruction where the class as a whole may need to improve.

Examining changes from pretest to posttest will help you and your students gain insights about the areas where students improved, or did not improve, during the course. This information can help students refine their strategic approaches and identify areas to target in the future. In addition, it can help you analyze the effectiveness of your course and inform how to modify your curriculum and instruction over time. Data that supports the effectiveness of your course can additionally be used to make a case for funding the continuation and expansion of your course.

A number of strategic learning assessments currently exist and are used with students in adult and postsecondary education and workforce training programs. We recommend that you chose an assessment, or group of assessments, that measures aspects related to students' skill, will, and self-regulation. Depending on the specific goals of your course and the other material you may decide to integrate with your learning frameworks curriculum, you may also want to include other assessments that measures areas such as: basic skills in reading, writing, and mathematics; adjustment to college; vocational/career interests, decision-making skills; life skills; and so forth.

An example of a diagnostic/prescriptive assessment using the Model of Strategic Learning is the Learning and Study Strategies Inventory (LASSI; Weinstein, Palmer, & Schulte, 2002). This 80-item self-report measure of strategic learning has 10 subscales related to the three major components of the MSL (e.g., information processing strategies, motivation and time management). See *Section III Appendix G* for a summary of each scale and two sample items. LASSI is widely used in learning frameworks courses and interventions and has been shown to have good reliability and validity. It can also be used on a pre-post basis with as little as 3 weeks in between. Review copies may be obtained from the publisher (http://www.hhpublishing.com/).

Using Powerful Instructional Methods for Teaching Learning Strategies

Teaching students strategies for learning, recall, application and transfer requires emphasizing guided practice with feedback so students can adopt, adapt and create effective strategies that work for them with differing learning content and tasks. Not all strategies are advantageous to use for different tasks, different content and different students. Because of this it is important to provide many opportunities for students to acquire, experiment with and refine their strategies by applying them and receiving feedback about their success and process feedback from their instructor. Developing a repertoire of strategies, rather than only developing preferences for a limited number or type of strategies, is also important so that when a comprehension error occurs or learning is not proceeding at an efficient pace, the student has other tools to use. A carpenter may have a heavy steel-head hammer she prefers to use but it will not work when she is hammering a plastic strip and needs a soft mallet.
There are three primary types of knowledge students need to acquire and integrate about learning strategies: declarative, procedural and conditional. Declarative strategy knowledge is knowledge

about a strategy (e.g., What is time management? What is an elaboration information processing strategy?). Procedural knowledge requires knowing how to use the strategy (e.g., How do I manage my time? How do I relate my prior knowledge and experience to help me build bridges to new information I am trying to learn?). Conditional knowledge requires knowing when, and under what circumstances, it may be useful to use particular learning strategies (e.g., When is it useful to use trade-offs in a study schedule? Under what circumstances is it efficient to use mind mapping to learn new material?).

It is critically important to teach student all three types, or levels, of strategy knowledge. Each type builds on the level(s) before it. Students need to know what a strategy is before they can learn how to use it. They also need to know how to use it prior to determining when and how it is most effective and efficient for them to use each strategy. The following instructional methods are most useful for accomplishing the goal of helping students create and improve their knowledge of all three levels and their repertoire of strategies.

When teaching learning strategies use:

- Direct Instruction: tell students what the strategy is and how it can help them to be more effective and efficient learners.
- Modeling: demonstrate using the strategy carefully articulating each step.
- Guided Practice: provide guidance as students practice the strategy in class. Guide students on how to implement the strategy on authentic tasks outside of class.
- Feedback: provide extensive informative feedback to students and have students share their experiences using a strategy.
- Group Work: Use a balance of independent, paired, and group work. Alternate between them.

Additional Resources for Developing and Implementing a Learning Frameworks Course

It was not possible to include in this document all of the factors and detailed methods that you could use to teach all of the elements in the Model of Strategic Learning. For further guidance and additional techniques and examples you will need to access additional resources. In *Section III Appendix A* we have listed a number of different types of sample sources: related textbooks, online interactive instructional modules (based on the MSL and associated with the LASSI) and other interactive software, websites, strategic and self-regulated learning assessments, sources for learning more about theory and research underlying learning frameworks curricula, and contact information for the authors of this document.

Section III Appendix A: Selected Resources and Materials for a Learning Frameworks Course

Textbooks

Staley, C. (2011). *FOCUS on college student success* (3rd. ed.). Boston, MA: Wadsworth, Cengage Learning. [note that there are instructor's editions as well as other versions such as *FOCUS on community college success*].

Sellers, D., Dochen, C. W., & Hodges, R. W. (2011). *Academic transformations: The road to college success* (2nd. ed.). Boston, MA: Prentice Hall.

VanderStoep, S. W., & Pintrich, P. R. (2007). *Learning to learn: The skill and will of college success* (2nd ed.). Boston, MA: Prentice Hall.

Online Interactive Instructional Modules and Other Interactive Software

Weinstein, C. E., Woodruff, T., & Awalt, C. (2002). *Becoming a Strategic Learner: LASSI Instructional Modules*. Clearwater, FL: H&H Publishing.

Winne, P. H., Nesbit, J. C., Kumar, V., Hadwin, A. F., Lajoie, S. P., Azevedo, R., et al., (2006). Supporting self-regulated learning with gStudy software: The learning kit project. *Technology, Instruction, Cognition and Learning, 3*, 105-113.

Websites

http://www.HowToStudy.org
http://www.muskingum.edu/~cal/database/
http://www.studygs.net/index.htm

Strategic and Self-Regulated Learning Assessments

Weinstein, C. E. & Palmer, D. R. (2002). *User's manual for those administering the learning and study strategies inventory* (2nd ed.). Clearwater, FL: H & H Publishing.

Weinstein, C. E., Palmer, D. R., & Schulte, A. (2002). *The learning and study strategies inventory* (2nd ed.). Clearwater, FL: H & H Publishing.

Pintrich, P. R., Smith, D. A., Garcia, T., & McKeachie, W. J. (1991). *A manual for the use of the motivated strategies for learning questionnaire (MSLQ)* (Technical Report No. 91-B-004). Ann Arbor, MI: National Center for Research to Improve Postsecondary Teaching and Learning.

Theory and Research Underlying Learning Frameworks Curricula

Hodges, R. & Agee, K. S. (2009). Program management. In R. F. Flippo & D. C. Caverly (Eds.), *Handbook of College Reading and Study Strategy Research* (2nd ed., pp. 351–378). New York, NY: Routledge.

Schunk, D.H., Pintrich, P.R., & Meece, J.L. (2008). *Motivation in education: Theory, research and applications* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Weinstein, C. E., & Acee, T. W., (2012). Helping college students become more strategic and self-regulated learners. In H. Bembenutty, T. J. Cleary, and A. Kitsantas (Eds.) *Applications of self-regulated learning across diverse disciplines: A tribute to Barry J. Zimmerman* (pp. 197-236). Charlotte, NC: Information Age Publishing.

Weinstein, C. E., Acee, T. W., & Jung, J. H. (2011). Self-regulation and learning strategies. *New Directions for Teaching & Learning, 2011* (126), 45-53. doi: 10.1002/tl.443

Zimmerman, B. J., & Schunk, D. H., (Eds.). (2011). *Handbook of self-regulation of learning and performance*. New York, NY: Taylor & Francis.

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Section III Appendix B
Example Learning Frameworks Course Schedule for a 15-Week Three-Credit Course
(assuming the class would meet 3 times per week for 50 minutes)

Date	Preparation	Topic(s)	To Be Handed in at the Start of Class	Assigned in Class
Day 1		Course Introduction Overview of Course Topics		
Day 2	Read: "*Top Ten List for College Success*"	Pre-Assessment LASSI Goal Orientation Top Ten List for College Success		
Day 3	Read Syllabus, Course Schedule, Assignment Descriptions	Course Expectations: Course Website Online Modules Assignment Descriptions Quality of Assignments Active Participation Communication with Instructor		Learning Autobiography
Day 4		Pre-Assessments: Nelson Denny Reading Assessment Help Seeking		
Day 5		Community Building		
Day 6	Read: "*Model of Strategic Learning*"	Model of Strategic Learning: Why is the model important? What are the components?		Information Processing & Self-Testing Integrative Assignment
Day 7		"Content Overview" Day 1 Information Processing Self-Testing Motivation Attitude	Learning Autobiography	
Day 8		"Content Overview" Day 2		
Day 9		"Content Overview" Day 3		
Day 10		Model of Strategic Learning Recap		
Day 11	Read: "*Information Processing Reading"*	Information Processing for Acquiring Knowledge	Information Processing & Self-Testing Interactive Assignment	
Day 12		Information Processing for Acquiring Knowledge		
Day 13	Read: *"Self-Testing Reading"*	Information Processing for Acquiring Knowledge Self-Testing		Motivation & Attitude Integrative Assignment
Day 14		Self-Testing		
Day 15	Read: *"Systematic Approach"*	Systematic Approach		
Day 16	Read: *"Types of Knowledge"*	Types of Knowledge		
Day 17		Systematic Approach		
Day 18	Read: *"Goals, Goal Orientation Reading"*	Motivation	Motivation & Attitude Integrative Assignment	
Day 19	Read: *"Attitude Reading"*	Motivation Attitude		Time Management & Anxiety Integrative Assignment

Example Learning Frameworks Course Schedule for a 15-Week Three-Credit Course (assuming the class would meet 3 times per week for 50 minutes), *continued*

Date	Preparation	Topic(s)	To Be Handed in at the Start of Class	Assigned in Class
Day 20		Attitude		
Day 21		Exam 1 Review		
Day 22		Exam 1		
Day 23	Read: *"Academic Environment Reading"*	Academic Environment Components Strategies		
Day 24	Read: *"Academic Help-Seeking Reading"*	Academic Help-Seeking Types of Help-Seeking Situational Analyses Exam 1 Feedback		Study Aids & Test-Taking Strategies Integrative Assignment
Day 25		Time Management	Time Management & Anxiety Integrative Assignment	
Day 26		Procrastination		
Day 27	Read: "*Anxiety Reading"*	Anxiety		Concentration & Selecting Main Ideas Integrative Assignment
Day 28		Coping and Anxiety		
Day 29		Study Aids	Study Aids & Test-Taking Strategies Integrative Assignments	
Day 30		Study Aids Testing-Taking Strategies		
Day 31		Test-Taking Strategies		
Day 32		Concentration	Concentration & Selecting Main Ideas Integrative Assignments	
Day 33	Read: *"Reading Strategies Reading" "Note-taking Reading*"	Reading, Listening & Note-Taking Strategies		
Day 34		Selecting Main Ideas		
Day 35		Exam 2 Review		
Day 36		Exam 2		
Day 37		Post-Assessment LASSI Goal Orientation		Capstone Assignment
Day 38		Post Assessments Nelson Denny Reading Assessment Help Seeking Exam 2 Feedback		
Day 39		Individual Projects Day		
Day 40		Integration of Course Topics		
Day 41		Integration of Course Topics		
Day 42		Where will you go from here? Also discuss other online resources	Capstone Assignment	

Note. Three days were removed from this 15-week schedule for classes that would likely be missed due to holidays.

Section III Appendix C
Example Learning Frameworks Course Schedule Adapted for an 8-Week Course
(Assuming the class would meet 3 times per week for 50 minutes)

Date	Preparation	Topic(s)	To Be Handed in at the Start of Class	Assigned in Class
Day 1		Course Introduction Overview of Course Topics Course Expectations: Course Website Online Modules Assignment Descriptions Quality of Assignments Active Participation Communication with Instructor		
Day 2	Read: "*Top Ten List for College Success*"	Pre-Assessment LASSI Goal Orientation Top Ten List for College Success		Learning Autobiography
Day 3	Read: "*Model of Strategic Learning*"	Model of Strategic Learning: Why is the model important? What are the components?		Information Processing & Self-Testing Integrative Assignment
Day 4		Model of Strategic Learning Recap	Learning Autobiography	
Day 5	Read: "*Information Processing Reading"*	Information Processing for Acquiring Knowledge	Information Processing & Self-Testing Interactive Assignment	
Day 6		Information Processing for Acquiring Knowledge		
Day 7	Read: *"Self-Testing Reading"*	Self-Testing		Motivation & Attitude Integrative Assignment
Day 8	Read: *"Systematic Approach"*	Systematic Approach		
Day 9	Read: *"Types of Knowledge"*	Types of Knowledge		
Day 10	Read: *"Goals, Goal Orientation Reading"*	Motivation	Motivation & Attitude Integrative Assignment	
Day 11	Read: *"Attitude Reading"*	Motivation Attitude		Time Management & Anxiety Integrative Assignment
Day 12		Attitude		
Day 13		Exam		
Day 14	Read: *"Academic Environment Reading"* Read: *"Academic Help-Seeking Reading"*	Academic Environment Components Strategies Academic Help-Seeking Types of Help-Seeking Situational Analysis		Study Aids & Test-Taking Strategies Integrative Assignment
Day 15		Exam Feedback	Time Management & Anxiety Integrative Assignment	

Example Learning Frameworks Course Schedule Adapted for an 8-Week Course (Assuming the class would meet 3 times per week for 50 minutes), *continued*

Date	Preparation	Topic(s)	To Be Handed in at the Start of Class	Assigned in Class
Day 16		Time Management Procrastination		
Day 17	Read: "*Anxiety Reading*"	Anxiety Coping with Anxiety		Concentration & Selecting Main Ideas Integrative Assignment
Day 18		Study Aids	Study Aids & Test-Taking Strategies Integrative Assignment	
Day 19		Test-Taking Strategies		
Day 20		Concentration	Concentration & Selecting Main Ideas Integrative Assignment	
Day 21	Read: "*Reading Strategies Reading" "Note-taking Reading*"	Reading, Listening & Note-Taking Strategies		
Day 22		Selecting Main Idea		
Day 23		Post-Assessments: LASSI Nelson Denny Reading Assessment		Capstone Assignment
Day 24		Integration Day Where will you go from here? Also discuss other online resources.	Capstone Assignment	

Section III Appendix D: Skill Exemplars

Information Processing Strategies

Knowing about and using information processing strategies and skills is a major element of the Skill Component of the Model of Strategic Learning (MSL). When studying course content, it is critically important for students to use active learning strategies to help them process, generate meaning and make new information more memorable. In order to learn information meaningfully, retain it in memory, and use it in different situations, students must actively think about and process the information they are trying to learn. Relying primarily on low-level memorization and rote learning techniques is not sufficient to learn course material and be successful in college.

There are different types of information processing strategies that may work more or less well for a specific student depending on the individual student and the task and context in which the student is using the strategy. Therefore, it is important that students learn many different information processing strategies so they can identify the strategies that tend to work best for them. Additionally, having a repertoire of strategies is important so that if the strategies they typically prefer do not work, they have other strategies they can use. As a carpenter wears a tool belt with a variety of tools that are useful in different situations, students need to build a repertoire of information processing strategies that they can use to reach their learning goals in a variety of different learning tasks.

Below is a table of information processing strategies (Table 1) that is organized into three commonly used categories: rehearsal/mnemonic, elaboration, and organizational strategies. It is important that students learn strategies in all three categories. A definition and example is provided for each strategy.

You can teach students these strategies using direct instruction and by modeling how to use the strategy. But, then the best way to deepen students' knowledge and skill is by using guided practice and feedback. For example, let them practice using the strategies during class, ask them to try out different strategies while they study outside of class, and have them evaluate the usefulness of different strategies for them. Providing feedback on the usefulness and mechanics of the strategies they used helps them to hone their understanding of the strategy, how to use it and under what conditions it may or may not be useful for them.

The strategies below are content-general strategies that can be used in a variety of content areas, including courses that involve mathematics, reading, writing, liberal arts, science, and social science. Therefore, you may want to modify this table to fit your program or course. For example, you could add content-specific strategies you think are important for your students to learn, and change the examples to fit the material you are teaching.

Types of Information Processing Strategies

Types of Learning Strategies	Description	Example
Rehearsal and Mnemonic Learning Strategies	*Surface-level strategies used for memorization rather than deep-level information processing*.	*First-letter mnemonic method and simple repeating/reviewing.*
First-letter method	Using the first letter of each word in a list of items to make another word / acronym / sentence that is easy to remember.	Using "Roy G. Biv" as a cue to remember the colors of the visual light spectrum: red, orange, yellow, green, blue, indigo, and violet. PEMDASFLR to remember the algebraic order of operations (Parentheses, Exponents, Multiplication, Division, Addition, and Subtraction From Left to Right).
Repeating / reviewing	Repeating or reviewing a learning activity that was previously completed.	Rereading a section in your textbook that you had difficulty understanding. Repeating definitions of important words over and over again in order to remember them. Cycling through flash cards of math problems repeatedly. Reviewing class notes 24 hours after class as a way to slow forgetting.
Elaboration Learning Strategies	*Deep-level strategies used to understand, learn, remember, analyze, make connections between, apply, and elaborate on information.*	*Summarizing/paraphrasing, applying knowledge, perspective taking, comparing/contrasting ideas, generating and answering questions, visualizing/imagining, and teaching the material to someone else.*
Summarizing / paraphrasing	Summarizing or paraphrasing information in your own words in order to learn it at a deeper level.	After reading each section of a chapter in your math textbook, summarizing that section in your own words. Paraphrasing a definition of a literary concept in your own words. Writing a paragraph summarizing the main points of your reading, writing, or math instructor's lesson. Writing a paragraph summarizing the sequential steps of a mechanical process that you are learning about in your heating, ventilation, and air conditioning (HVAC) course.
Applying Knowledge	Applying the information, concepts, methods, and principals you are learning to a practice problem, real-life situation, or what you are learning in another course.	Using writing strategies you learned about in your writing course on a paper you are writing for another course. After learning about the scientific method, using it to solve a problem. After learning about how to graph equations, think of variables in real-life situations that could be graphed (e.g. if more exercise leads to less weight, ow would that look in terms of an equation and graph?). Making connections between what you are learning in your economics course about supply and demand curves and what you are learning about graphing equations in your math course.

Types of Information Processing Strategies, *continued*

Types of Learning Strategies	Description	Example
Elaboration Learning Strategies	*Deep-level strategies used to understand, learn, remember, analyze, make connections between, apply, and elaborate on information.*	*Summarizing/paraphrasing, applying knowledge, perspective taking, comparing/contrasting ideas, generating and answering questions, visualizing/imagining, and teaching the material to someone else*.
Perspective-taking	Taking the perspective of another person or group of people to gain insights and a deeper understanding of the information one is trying to learn.	In a literature course, taking the perspective of the author to gain insights about the author's intended meaning behind particular parts of the story, motivation for writing the text, and what affect he/she wanted to have on society through the text. As you learn about a new mathematical rule, take the perspective of the original discover of this rule to gain a deeper understanding about why he/she was interested in this rule and the importance this rule has for scientists, inventors, and the general public. As you read a historical text on the Europeans' discovery of the Americas, taking the perspective of both New World explorers and Native Americans when they first met in order to gain a deeper understanding of the issues they faced.
Generating and Answering Practice Problems	Generating practice problems for you to complete as a way to more effectively learn the material you are studying and prepare for future assignments and exams.	Generating possible test questions about the material you are reading and then trying to answer them. Creating practice mathematics word problems to solve on your own.
Visualizing / Imagining	Creating visual images or imagining what the material you are studying would look like or how it would function.	Students interested in nursing could visualize the steps involved in taking a blood sample as a way to engrain these steps into their memory. Visualizing a problem in concrete terms (100 / 5 = 20 could be visualized as 100 apples in 5 boxes with 20 apples per box). Visualizing what different math equations would look like if they were graphed (e.g., y = x would have a straight line, y = x2 would have a curved line resembling the letter "U", and y = -x2 would have a curved line resembling a rainbow). As a way to more fully understand seasonal differences across the globe, visualizing the earth tilted on its axis and orbiting the sun.
Teaching the material to someone else (e.g., classmate, friend, family member)	Teaching or explaining to someone else what you are trying to learn.	As you're reading, periodically stopping to explain the material you are studying to a study partner, friend, or family member. Working in study groups and teaching different learning objectives for an upcoming exam to each other. Teaching to your daughter, son, or spouse what you are learning in your basic math course (e.g., addition, subtraction, multiplication, and division) or reading / writing course (e.g., sentence structure, verb conjugation, vocabulary, and critical reading and thinking strategies). Explaining to an instructor or teaching assistant your understanding of a concept, or, how you went about answering a homework problem.

Types of Information Processing Strategies, *continued*

Types of Learning Strategies	Description	Example
Organization Learning Strategies	*Deep-level strategies used to organize information into meaningful outlines, categories, hierarchies, sequential structures or other visual structures so that it can be visualized, learned and analyzed.*	*Creating outlines, concept maps, and concept matrixes.*
Creating outlines	Organizing material into a hierarchical structure and a logical flow using an outline structure (I. A. 1. b. etc.).	Making an outline of a chapter you are studying for an upcoming exam. I. Topic A. Main Idea 1. Supporting detail 2. Supporting detail 3. Example B. Main Idea 1. Supporting detail 2. Supporting detail 3. Example
Creating concept maps	Graphically representing the relationships among and between concepts.	Connecting concepts with arrowed lines and identifying those relationships with phrases such as: "results in", "contributes to", "decreases", "is a defining attribute of", and "is a sub-category of." As you are studying for an upcoming economics exam, graphically drawing relationships among concepts such as: interest rates, investment spending, production, supply, demand and unemployment.
Creating concept matrices	Graphically organizing information about related concepts into a matrix of rows and columns in order to learn and analyze concepts.	Organizing the names of different math concepts down the first column, concept definitions down the second column, and examples problems and solutions for each concept down the third column. Listing vocabulary words down the first column, parts of speech down the second, definitions down the third column, and examples of the vocabulary words used in a sentence down the fourth column. Organizing different philosophers' names (e.g., Hobbes and Locke) in the first column, the dates they were alive in the second column, their views on human nature in the third column, and an example of their ideas in the fourth column.

Section III Appendix E: Will Exemplars

Will is a very critical component of the Model of Strategic Learning for helping students to learn. Many students have negative attitudes and beliefs about themselves as learners and about the material they are learning in their courses. Often these negative attitudes and beliefs can interfere with students' motivation to do the work necessary to succeed in their courses. They can also interfere with students' ability to concentrate on and process course material. Two beliefs that directly affect students' motivation and success are self-efficacy beliefs and attributions beliefs.

Self-efficacy Beliefs

Self-efficacy is the degree to which students do or do not believe they are capable of accomplishing an academic task successfully. For example, students with high self-efficacy beliefs for a particular course are confident that they can complete their coursework successfully and tend to be more highly motivated, put in more effort, use more effective learning strategies, and implement more useful study plans. Students who have low self-efficacy beliefs tend to have lower motivation, put in less effort studying, often get frustrated and give up, use low-level learning strategies (such as rote repetition) and do not usually develop effective study plans. Believing that success on a task is possible is necessary for motivation. For example, if you were asked to walk up the side of a wall, would you try? Of course not, because you know it is impossible. You would have very low self-efficacy for this task. Many students think that it is impossible for them to learn a particular subject or succeed in a particular course. Their confidence in their capabilities to succeed is so low that, to them, trying would be as foolish as attempting to walk up the side of a wall. It is very important that we help students with low self-efficacy beliefs to overcome these self-sabotaging beliefs that they cannot successfully complete their coursework.

Changing low self-efficacy beliefs to higher self-efficacy beliefs requires changing students' beliefs about their ability to be successful at learning course concepts, developing skills in a course, and performing well on course tasks and assignments. One of the most useful ways to do this is to help students experience more success, particularly if they have had poor prior success. Students' beliefs and expectations are often based on past behavior and outcomes.

- Teach students about self-efficacy beliefs directly by explaining to them what self-efficacy beliefs are and how they influence motivation.
- Help students build a history of successes. Low self-efficacy is often based on past behavior so, if students have very few or no past successes, why would they expect future successes? Students need tasks that begin at very simple levels. Start out with simple tasks and assignments to help students build some confidence in themselves, and also to get an idea of students' current skill levels.
- Gradually increase the level and complexity of the concepts and tasks that you present to students. When a task is too challenging for a student to complete on his/her own, provide them with assistance to complete the task. Then, gradually remove your support until they can complete the task on their own.
- Provide students opportunities to work in groups. Working in groups can help students learn from each other and benefit from each other's strengths. Students who cannot complete a task on their own may be able to complete the task with assistance from their group members. This can help students to build their confidence at completing course tasks.
- In some situations, it may be helpful to individualize instruction so that students are working on tasks that are optimally challenging for them given their current level of skill.

- Give students praise and encouragement. In order to cultivate students' confidence, it is important that you give them praise when they do something well and encouragement when they are struggling. It is also important to teach students to give praise and encouragement to each other.

Attribution Beliefs

Attributions are beliefs students have about the cause(s) of their success or failure on academic tasks. Students who tend to attribute their successes and failures to factors that are under their control, such as effort, use of learning strategies, developed ability, willingness to seek help, and choosing a study environment that is conducive to learning tend to be more motivated. Whereas students who focus on factors that are not controllable, such as innate ability, luck, task difficulty, and perceived instructor quality, tend to be less motivated. Students who focus on factors that are under their direct control tend to take more responsibility for the quality of their work and are more likely to learn from their mistakes. Conversely, students with uncontrollable attributions are more likely to blame the test, the instructor, and "Lady Luck," and are less inclined to think about how they could improve on the next task or test.

If students believe that the causes of their successes and failures on academic tasks are outside of their control, then to them, there is no point in trying to improve. Consequently, these students tend to feel a sense of helplessness. Students who believe that they have control over their learning successes and failures, on the other hand, are more likely to learn from their mistakes, identify more effective and efficient methods for learning, and actively generate motivation. In sum, it is important to help students understand that they have control over their learning and achievement, and help them to focus on controllable factors and not get caught up in dwelling on factors that are outside of their control.

Helping students to develop controllable attribution beliefs

- Teach students about attribution beliefs directly by explaining to them what attribution beliefs are and how they influence motivation.
- Give students feedback on aspects of their learning they have control over such as: their level of effort, use of learning strategies, willingness to seek help, and choice of a study environment that is conducive to learning. For example, when students succeed on a task, express to them that you could really see the effort that they put into preparing for the exam. After students perform poorly, show them how their study strategies could be improved to increase their chances of success on the next exam. General comments about how they did (well or poorly) allow them to hold onto uncontrollable attributions.
- Avoid attributing students' performance to uncontrollable factors such as innate ability, luck, and task difficulty. For example, when students succeed on a task, don't suggest to them that they succeeded because of their innate ability by telling them, for example, "You're so smart." When students fail don't try to console them by suggesting that they failed because it was a difficult test or they weren't lucky this time.
- Help students identify their attribution beliefs by asking them what factors affected their performance on an assignment or exam. For example, after an exam, you could have students list all the factors that they think affected their performance on the exam. Tell them you want to explain 100% of the reasons for their performance. Have them put a percent for each factor they list so that it adds up to 100%. Then, use this opportunity to discuss controllable versus uncontrollable attribution beliefs. You could have students identify which factors are under their control and which are not.

- Help students modify their attribution beliefs by asking them to reflect on how their level of effort, use of strategies, help-seeking, and choice of study environment affects their learning, and how they can modify these areas to improve their learning. For example, after an exam, you could have students recall what methods they used to study for the exam and then have them analyze what worked and what did not work. Finally, have students generate a plan outlining how they will study for the next exam. This can help students take more responsibility for their learning.

Section III Appendix F: Self-Regulation Exemplars

Many students have developed ineffective and inefficient study routines and do not know how to improve the methods they use to study and learn. The strategies students use to learn course content and develop course skills may not be working well, but students often continue to use these strategies time and again because they do not know what else to do. In order to help students improve and refine the methods they use to study and learn, it is important to teach them to use a systematic approach to learning (which is a major part of the Self-Regulation Component of the Model of Strategic Learning).

Introduction to the Eight Steps of the Systematic Approach

STEP 1: Set a useful goal. A useful goal is challenging yet realistic, specific and measurable, and contains both a start date and end date. For example, you can set a goal for an upcoming assignment or exam, and your goal can contain the level of performance that you want to achieve on your assignment or exam.

STEP 2: Reflect on your strengths and weaknesses related to the goal you set. Recall your experiences with similar tasks to get an idea about obstacles that may stand in your way and which strategies worked or did not work for you in the past. Consider what resources are available for you to use to help you reach your goal (e.g., learning center, study groups, instructors' office hours, and online materials). Reflect on your motivation for reaching this goal. Consider how reaching this goal could be useful for you in the future for personal, social, academic, and occupational reasons. It is also important to recognize if you feel anxious about this task or doubt your capabilities to reach this goal. Reflecting is a vital step of the systematic approach. If you fail to reflect on your experiences, you might end up selecting strategies that will not work for you. You also will not be taking advantage of information that could help you achieve your goal.

STEP 3: Brainstorm. What are all of the strategies you can think of to help you accomplish your goal? The point here is to take stock of all potential strategies you already know; therefore, you should list every strategy that comes to mind. Thoroughly consider the various ways that you could approach a learning task, whether it is preparing for an exam, working on an assignment, or reading a chapter in your textbook? This step involves using your knowledge of different learning strategies (e.g., summarizing concepts in your own words, teaching the material to someone else, working in study groups, creating a list of questions to ask your instructor, selecting main ideas, making flash cards, completing practice problems, or outlining a chapter) as well as strategies that you can use to motivate yourself, maintain your concentration, and manage your time.

STEP 4: Create an action plan by selecting specific strategies or methods that you will use to carry out your plan. What will you think about or do to accomplish your goal? You should refer to the list you created in Step 3 for ideas and choose a few strategies to include in your plan.

STEP 5: Implement your plan. Implementation often sounds easier than it really is. It is important to keep your goal and the plan that you created to reach your goal fresh in your mind. This will help you stay on track to reaching your goal. You will need to manage your day-to-day activities to make sure you are implementing your plan in a timely manner.

STEP 6: Monitor and formatively evaluate your progress. Keep track of what you are doing and how successful you are while you are implementing your plan. Check to see what you have accomplished. If you are reaching your goal in a timely manner, continue what you are doing. If you are not reaching

your goal in a timely manner, then you will need to modify your plan, or choose more effective and efficient learning strategies, or even modify your goal.

STEP 7: If necessary, modify your plan or your goal. Only one of a few strategies in your plan may need to be modified or replaced with a new strategy. You can refer back to Step 3, when you brainstormed about potential strategies, to help give you ideas about alternative strategies you can try out. However, it may be that your goal is not appropriate anymore. In this case, you need to go back to Step 1 and modify your original goal.

- Your strategies: Maybe you need to eliminate a particular strategy altogether. For example, maybe you thought making flashcards would help you learn vocabulary terms, but this strategy does not seem to help you that much. You could try a new strategy instead (refer to your brainstormed list). Modifying your strategy might also include changing when you study. Perhaps studying in the afternoon is unproductive because you are sleepy at that time. However, studying in the evening works because you are more alert.
- Your goal: Maybe your goal needs to be adjusted. Maybe you realize that your goal is unrealistic. For example, if you set a goal to earn an "A" on your exam, it might turn out to be unrealistic given some of the difficulties you are having learning the material. Perhaps a goal of "B" is more realistic for you.

STEP 8: Summatively Evaluate. After you are completely finished implementing your plan and you know whether or not you reached your goal, evaluate which aspects of the plan worked and which did not work. Did you achieve your goal? Why or why not? Which strategies would you use again on similar tasks in the future? Which strategies would you discard? By summatively evaluating, you gain valuable information to use the next time you approach a similar task. This will help you to build up a repertoire of strategies that you will be able to use in the future when a similar situation arises. It will also help you to identify methods that are not working well for you so you know not to use them again in the future.

An Example of Using the Systematic Approach

STEP 1: Set a useful goal.

- “I want to earn an 86% on my math exam that will be on Friday, October 1 .”

STEP 2: Reflect.

- “I feel confident about the exam because I did well on the first exam.”
- “My concentration is pretty good. I don’t get distracted easily.”
- “I know a lot of learning strategies.”
- “This test will have some word problems on it, and I sometimes have trouble with word problems”
- “I was a bit confused about the material we went over in class last week and this will be on the exam.”
- “I have a party this weekend and want to watch a baseball game which will take time away from my studying.”
- “I tend to procrastinate a lot and waste a lot of time on the Internet.”

STEP 3: Brainstorm.

- “Make flashcards of the concepts I need to know.”
- “Outline all of the chapters in my textbook.”

- "Answer the chapter questions in the textbook."
- "Complete the problem sets."
- "Summarize each section of my textbook after I finish reading it."
- "Rewrite my lecture notes."
- "Make a list of questions about what I am having trouble understanding."
- "Go to my instructor's office hours to get help with my coursework."
- "Go to the review session that the instructor is holding."
- "Form a study group."
- "Get a tutor to help me with my problem sets."
- "Make a time schedule for studying so I won't get behind."
- "Sit in the front of class so I don't get distracted."
- "Resist wasting time on the Internet."

STEP 4: Create an action plan.

- "I will make flashcards because I think they will best help me to remember all the terms I need to know."
- "I will summarize each section of the chapters in my own words to make sure I understand what I read."
- "I will complete the problem sets for each chapter."
- "I will make a list of questions about what I am having trouble understanding and ask the instructor or another student for help."
- "I will study for two hours every other day until the exam. That way, I won't get behind."

STEP 5: Implement your plan.

- "This is where I must actually do what I said I would do in Step 4."

STEP 6: Monitor and formatively evaluate

- "I made my flashcards. I've been studying them, but I don't feel like they are helping me understand the concepts I need to learn"
- "When I read, I summarize each section of my textbook. This strategy has been very useful. It helps me learn the material and also helps me identify areas I do not understand."
- "I only completed some of the problems sets, but need to do more work on them. When I start having difficulty with the problems sets, I give up. I think I might benefit from having a tutor help me with the problem sets, or perhaps complete the problem sets in a study group."
- "I have a list of questions about areas I am having trouble understanding, but I haven't gotten help with them from my study partner or instructor yet."
- "I've been studying for about one hour, instead of two hours, every other day. I don't feel like I've accomplished as much as I want. I need to spend less time surfing the Internet and watching television and instead focus on my studying."
- "Outlining the chapter seems to be helping me understand the content. The problem is outlining is taking a lot longer than I thought it would."

STEP 7: If necessary, modify your plan or goal.

- "Looking back at my original goal, I think I can still earn an 86%. After all, I still have a week left to prepare for the exam."
- "I need to spend more time studying. I am going to study 1. hours each day instead of 1 hour every other day. This will add an extra hour to my study plan."

- "I am going to stop using flashcards. I am getting a better understanding of the material with other strategies."

STEP 8: Summatively evaluate (after you have finished).

- "I received an 88% on my exam. I exceeded my goal by two percentage points!! I think that a big reason I did so well was because I studied every day, instead of every other day. I think it was also helpful to summarize each section of the chapter. Completing the problem sets with a study group was also very helpful. I didn't visit the instructor during office hours, but I think in the future I will try this because there was some information that the study group was wrong about. I definitely won't use the flashcards – they didn't help me understand the material at the level I needed to for the test. I felt well prepared for this exam and I didn't get nearly as nervous about the exam as I usually would. I really think using the systematic approach to learning was worth my time."

Section III Appendix G: Description of the Learning and Study Strategies Inventory (LASSI)

The LASSI is a 10-scale, 80-item assessment of students' use of learning and study strategies related to skill, will, and self-regulation components of the Model of Strategic Learning. Students respond to each item using a Likert-type scale from 1 to 5 where 1 is not at all typical of me, 2 is not very typical of me, 3 is somewhat typical of me, 4 is fairly typical of me, and 5 is very much typical of me. The assessment items do not ask students about specific instances when they studied or tried to learn something but rather what is typical of them in different learning contexts, topics and task types. The 10 scales on the LASSI are: Anxiety, Attitude, Concentration, Information Processing, Motivation, Selecting Main Ideas, Self Testing, Study Aids, Test Strategies, and Time Management. The Cronbach's alpha coefficients for all ten scales range from a low of .73 to a high of .89. It is interesting to note that Weinstein and her colleagues developed a metacognition scale for the LASSI but it correlated at .7 and above with every other LASSI scale suggesting that metacognition is foundational to many elements of strategic and self-regulated learning and cannot be teased apart easily. However, the scale that focuses on self-testing does address a subset of metacognitive processes referred to as comprehension monitoring – checking our understanding during class or study sessions to see if we are really understanding the material.

The LASSI scales primarily related to the skill component of the MSL are: Information Processing, Selecting Main Ideas, and Test Strategies. These scales examine students' learning strategies, skills and thought processes related to identifying, acquiring and constructing meaning for important new information, ideas and procedures; and, how students prepare for and demonstrate their new knowledge on evaluative procedures. The LASSI scales primarily related to the will component of the MSL are: Anxiety, Attitude, and Motivation. These scales measure the degree to which students worry about their academic performance, their receptivity to learning new information, their attitudes and interest in college, their diligence, self-discipline, and willingness to exert the effort necessary to successfully complete academic requirements. The LASSI Scales primarily related to the self-regulation component of the MSL are: Concentration, Self-Testing, Study Aids, and Time Management. These scales measure how students manage, or self-regulate and control their learning processes through using their time effectively, focusing their attention and maintaining their concentration over time, checking to see if they have met the learning demands for a course, an assignment or a test, and using study supports such as review sessions, tutors, learning centers or special features in a textbook or website.

The LASSI has been shown to be a valid and reliable measure of strategic learning (Weinstein & Palmer, 2002). The scores on each scale are converted to a percentile scale (1 to 100) so that students' relative strengths and weaknesses as well as their relationship to provided national norms can be examined.