The Transfer Center: Building a Home for Transfer Students

Historically, most institutions have not focused the same attention on their transfer population as native first-year students. Jacobs (2004) has referred to transfers as forgotten students, yet, today they are a major portion of the college-going population (NCES, 2008). As the numbers of transfers continue to increase, both two-year and four-year institutions will be faced with a greater demand for specialized services and programs to help these students succeed and graduate. Transfer students do not simply find their way to and through college campuses to graduation, as evidenced by lower retention and graduation rates compared to students who matriculate and graduate from the same institution (NCES, 2003). These rates are a cause for concern among many professionals and legislators who are beginning to demand more accountability from institutions and are tasked with complying with the American Graduation Initiative (Obama, 2009) to improve overall higher education graduation rates.

Research (Barefoot, et al., 2005) has demonstrated that an emphasis on first-year students makes a difference in their retention rates, and it is reasonable to assume that a similar intentional focus on transfer students could help all institutions (i.e., two-year and four-year) meet and exceed their goals regarding student success, retention, graduation, and access to a baccalaureate degree. This focus on transfers begins with a centralized location that specifically gears all of its efforts on transfer student success from the students’ preparation stage before transferring to their transition to a new institution and eventual progression and graduation (Poisel & Stinard, 2005). What follows is a recommendation for developing a transfer center with an intentional focus on student success.

To best serve transfer students, centers are needed at both two-year (i.e., traditional sending) and four-year (i.e., traditional receiving) institutions. The historic transfer pathway involved completing general education requirements at a two-year institution,
often leading to an associate’s degree, and then transferring to a four-year institution for upper-division courses leading to a baccalaureate (i.e., 2+2 path). However, today’s students are increasingly using multiple institutions in their pathways to a bachelor’s degree (Adelman, 2006). Enrollment patterns can be influenced by factors such as cost, convenience of course offerings, availability and location of courses, and teaching modalities. These multiple pathways have led to new terms in the transfer lexicon describing the direction of movement within the population, such as reverse, lateral, vertical, cross, and dual. As today’s students swirl from institution to institution (e.g., two-year to two-year, two-year to four-year/s, four-year to four-year/s, four-year to two-year), colleges and universities may be both receiving and sending schools. Institutions must accurately identify their individual transfer populations in order to build centers that meet the demands and needs of their specific transfer student population.

One of the many roles of a two-year institution is to prepare students for the second half of their bachelor’s degree. The successful accomplishment of this mission can be enhanced by a transfer center, which accepts students into the two-year school and then prepares them to transfer out. Two-year transfer centers can begin their development through the formation of strong and collaborative partnerships with local, regional, or statewide higher education institutions that will allow for the easiest transition of their students. Services that are typically offered at a two-year transfer center encompass academic advising related to the transfer transition, including accurate information on receiving institution requirements; career development; academic or study skill preparation; outreach; and transition assistance. The transfer center professionals must be prepared to work with all of the various types of transfers and their many reasons for transfer as staff will become the campus experts and advocates for the transfer population whether the students are entering, returning, or transferring out.

The four-year center takes on a more traditional role as the new home for students transferring into the institution. The center can be organized around programmatic efforts that focus on outreach, transition, progression, and advocacy. By serving as a one-stop shop or unified department that connects students to necessary resources, the four-year transfer center can effectively enhance the integration of new transfer students into campus life, which can increase retention and graduation rates (Tinto, 1994). The main components of the center are offering assistance with resource referral, understanding institutional policies, transition or orientation issues, academic

References
advising, course equivalencies, and problem resolution. Four-year centers can be staffed with professionals, graduate students, and peer mentors who serve as a collaborative team dedicated to helping faculty and staff understand the unique needs of transfer students while serving as the lead resource or advocate for this special student population.

Conclusion

Although each institution will have a different approach to facilitating transfer student success, the overarching recommendation is that institutions take positive steps to intentionally plan for and assist transfer students in their transition to and graduation from an institution of higher education and in earning a four-year degree. This article has focused on one strategy—the transfer center model. The type and components of transfer centers will vary depending on the institution, characteristics of the campus-specific transfer population, and the unique needs of subpopulations of transfer students (e.g., first-generation, veteran, adult learners). Services should be periodically reevaluated to ensure they are effective and continue to meet student needs as the makeup of the transfer population evolves. The transfer center model offers a comprehensive approach, for both the transfer student and the institution, to achieve academic success and improve retention and graduation rates.

To further assist institutions and professionals in serving the needs of transfer students and for a more in depth discussion of the transfer center model, a forthcoming monograph from the National Resource Center, Transfer Students in Higher Education: Building Foundations for Policies, Programs, and Services That Foster Student Success (Poisel & Joseph, in press), provides research, case studies, and best practices to help institutions meet the challenges of enrolling, orienting, advising, serving, retaining, and graduating transfer students.

Related Articles in E-Source


Monograph No. 54

Transfer Students in Higher Education: Building Foundations for Policies, Programs, and Services That Foster Student Success

Mark Allen Poisel and Sonya Joseph, Editors

Available December 2010.
Preparing University Communities to Serve Those Who Served Us: Use of a University Seminar to Support Student Veterans

Helping troops make a successful transition from the battlefields of Iraq and Afghanistan to the college classroom is one of the most important challenges facing campuses today. The college experience can set the stage for a smoother adjustment back into civilian life for many veterans. With more than two million military personnel returning from deployments in war zones, colleges and universities will likely witness an increase in the student veteran population in coming years (American Council on Higher Education, 2008). The veteran challenge is especially significant for colleges and universities in the state of Texas, which ranks third in military personnel serving in Iraq and Afghanistan. Approximately 62,000 troops have returned to reside in Texas following these deployments (TexVet.com, 2008). The high number of military bases (e.g., Fort Hood, the largest military installation in the country) in the Central Texas region— and near Texas State University— makes this region particularly in need of service innovations.

Texas State currently has approximately 1,300 student veterans. Close to 80% are undergraduates and 73% are male. The majority of veterans (66%) are 20-29 years of age; 20% are in the 30-39 age category with the remainder over 40 years of age. Roughly 61% are White, 24.5% Hispanic, and 9.5% are African American. Early indications from fall 2010 applications suggest the campus’ veteran and veteran dependent population may double in the coming academic years.

Texas State offers multiple programs and services to veterans to assist them in accomplishing their academic goals, including:

- A first-year seminar, University Seminar, with veteran-designated sections
- A Veterans Advisory Council to coordinate the multiple campus veteran programs
- An active Veterans Affairs Office that is committed to assisting student veterans
- Professional development training for staff and faculty on veterans’ challenges
- Partnerships with community services
- Special monthly events honoring veterans
- A strong student veterans’ organization

Katherine Selber
Professor, School of Social Work
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San Marcos
San Marcos, TX
A new student organization for families and friends of troops and veterans
Elective courses within social work on helping troops and veterans
The use of focus groups and needs assessments to stay current with student veterans’ needs

Of these programs and services, the University Seminar is a crucial first step in helping veterans make the initial adjustment into Texas State and successfully complete their degree.

The idea for a veteran-designated seminar section evolved from input from veteran focus groups conducted on campus in February 2009. Veterans mentioned their beginning difficulty in sitting in classes with traditional first-year students who they described as often disrespectful to instructors, distracted with social issues, and uninformed about the war. Focus group participants cited a veterans-only University Seminar as one of the main changes they wanted for first-semester veterans.

In fall 2009, as a pilot study, two separate sections of University Seminar were designated for veterans. As a result of the sections being added late in the registration cycle, sections were not veteran-specific, as originally intended, but consisted of half veteran and half traditional first-year student enrollments. Both seminar instructors had a background in helping veterans—one as a Vietnam veteran and director of the campus counseling center and the other as a military family member who is involved in developing services for troops and veterans on campus and in the community.

For two decades, the seminar, a one-credit hour course meeting weekly, has been successfully transitioning first-year students onto campus and helping them meet their career and life goals. Seminars are limited to 30 students to ensure deeper faculty and student engagement and include sessions on (a) campus life; (b) extracurricular, cocurricular, and service opportunities; (c) the mission of universities; (d) the role and responsibility of an educated person in society; (e) campus services and resources; (f) learning styles; and (g) faculty communication. Additional learning outcomes for the pilot sections were to build traditional student awareness of veterans’ perspectives and to assist veterans in better understanding their traditional student classmates.

Two assignments were designed to address the goal of having veterans and traditional first-year students learn more about each other. The first assignment required each student (i.e., veteran and traditional) to attend a minimum of two veteran appreciation events and participate in a follow-up class discussion on the experience. These could be off- or on-campus events (e.g., veteran resource fairs, monthly veteran luncheons, Veterans Day events). For traditional first-year students, this assignment raised awareness of the importance of honoring veterans’ service and sacrifices. For student veterans, it connected them to the campus veteran organizations and services and helped introduce them to other vets. During class discussions, individual experiences were
shared and became a chance for student veterans and traditional first-year students to learn more about each other.

The second assignment was a veteran interview. Each traditional first-year seminar student was assigned a student veteran to interview and then asked to write a paper and give an oral report about what they learned. Veterans who did not want to participate in being interviewed were allowed to opt out in order to respect their privacy; however, all veterans chose to be interviewed. Students were provided interview guidelines focusing on the veterans’ military history, reasons for joining, and service experience as well as the importance of their service in their lives. Veterans did not conduct a reciprocal interview but were required to take notes during the interview process and give an oral report on what they had learned about the traditional students and offer ways first-year students might enhance their college experience, including avoiding pitfalls and seizing opportunities. This assignment served the purpose of helping traditional students learn about the military and a veteran’s perspective on his or her service. It also put a personal face on the war for each traditional student. For the student veterans this was also an important learning experience as they began to identify more commonalities with their first-year peers and understand that their differences were more a matter of normal developmental milestones (e.g., staying out late, socializing more with friends, exploring identity ideas) than true dissimilarities. Student veterans also reported that the project gave them a chance to be heard and feel respected as they told their stories.

One unexpected result of the veteran interview assignment was that several student veterans began using their leadership skills to mentor their traditional peers on issues with which the vets had more life experience, such as the importance of being grateful for the opportunity to go to college, the effects of socializing too much, and how to take care of themselves physically and emotionally, avoiding many of the problems they themselves had experienced at that age. The spontaneous mentoring further enhanced the comfort and understanding levels between the two groups. The traditional students also began to talk about their veteran with pride. This project connected the two student groups, and the majority of student course evaluations rated this assignment as a “very positive” experience.

Texas State University will continue piloting the use of the University Seminar for student veterans in the fall 2010 semester with two significant changes. Peer-to-peer mentoring topics will be added to the seminar curriculum to better connect student veterans to campus resources and to train students for a future veteran peer assistance program. In addition, the 2010 fall sections will be designated for student veterans only. The two types of seminars (i.e., veterans only and mixed) will be compared to determine best practices for each approach. An online survey and a focus group will be used to explore positives and negatives to each model for the seminars around issues such as comfort levels between groups, learning styles, utility of assignments, and help in transitioning into the University.
Common Book: Practical Strategy for Supporting Student Learning and Success

The College of Education and Human Development at the University of Minnesota (UM) includes a common book program in its college-wide first-year seminar, First Year Inquiry (FYI). As Kuh (2008) states, “Common, intellectual content should be a nonnegotiable organizing principle for these early college experiences” (p. 19). The common book program provides this content and a shared foundation. Since 2008, the FYI has been required of all incoming students in the College of Education and Human Development (CEHD) and serves a diverse population: approximately 10% of CEHD’s 400-450 entering cohort are honors students, and 30% are TRiO students (i.e., first-generation, low-income, and/or under-represented). The seminar is taught by multidisciplinary faculty teams and organized around the theme “How can one person make a difference?”

Students in each of the six FYI sections typically spend four weeks on the common book, using active-learning strategies to introduce multiple disciplinary lenses to their study of the book, and to develop students’ analytical and research skills. Strategies include engaging in group discussions, researching the historical and political context represented in the book, revising scenes in the book from a different character’s perspective and acting them out, or participating in debates around issues central to the book. Cocurricular activities complement these strategies and consist of (a) the author’s visit to the entire FYI class; (b) an evening lecture by the author that is open to the public and required of FYI students; and (c) related programming, such as films and book groups. Students in all of the FYI sections attend the author events together as a single, first-year cohort. Students prepare for and participate in the author’s visit by developing questions for an open discussion. To date, common book selections have included An Ordinary Man, A Lesson Before Dying, and Prisoner of Tehran.

Assessment and Results

Assessment is a critical component embedded in the FYI initiative and is used both as a formative tool to improve course outcomes and a summative tool to evaluate results. Reflective journals are a core tool in the assessment and offer insights into students’ experiences with the course, as well as provide a platform for students to further their own learning and development (Brookfield, 1995).

At three points (i.e., fourth week, eighth week, and end of semester) in fall 2008 and fall 2009, all FYI students (i.e., 401 and 454, respectively) responded to open-ended reflective journal questions. These questions...
were developed to capture students’ perceptions of FYI’s impact on their academic development and social integration. Students were asked at time points one and two to reflect upon (a) a moment when they were most engaged, (b) a moment when they were frustrated, (c) their perceptions of whether the course was developing a sense of community amongst students, and (d) their perceptions of the course’s effectiveness in contributing to their ability to succeed at the University. At time point three, students described a critical moment in their first semester that related to the FYI course. For each time point, reflective journal responses ranged from 400-700 words.

Student journals were analyzed by three researchers using narrative analysis procedures (Creswell, 1998). The analysis process involved two phases. In the first phase, all journal entries where students wrote about the common book were pulled from the entire data set. In the second phase, data were analyzed to determine how students connected the common book program to their overall learning and development in the First Year Inquiry course.

**Academic Engagement: Common Intellectual Content**

Students frequently identified experiences related to the common book as moments of deepest engagement in their learning. In particular, students noted discussions with peers and class activities that prompted deeper investigation of themes or issues in the common book. Students positively described working collaboratively to devise questions for the author’s visit, which facilitated their understanding of and connection to the book. As one student stated, the common book acted as a platform for supporting collaborative inquiry and meaning-making:

> The event I felt most like an FYI participant in was when we went to go see Paul Rusesabagina speak…. Listening to Paul made me see why we chose *An Ordinary Man* as our first reading and appreciate our work with the novel more. After hearing Paul speak, I understand the activities and readings given in the FYI class on a deeper level. This allowed me to see myself as more of a participant in all aspects. I am more interested in the focus question of our class now and applying it to our capstone project. I've learned one person really can make a difference, even if it is in a group effort. I better understand the important role immigration plays in making a difference. …I became more intrigued with people who migrate to make a difference.

**Social Engagement: Building Community**

Students also noted that the program promoted their sense of a college community. Some students described walking around campus or their dorm and seeing someone
they did not know reading the book. Often, this prompted a conversation, resulting in students claiming to feel more connected to one another and to the college. In addition, students remarked that the author events, when all FYI groups came together, facilitated a sense of a broader cohort and shared purpose. They described the positive impact of the opportunity to dialogue directly with the writer and interact with the entire cohort, as evidenced by the following comment:

I think that if we had not felt like a community, less people would have had the courage to go up to the microphone and ask Gaines a question about his novel. Because we all feel part of one community, at the very least, with the book in common, it becomes easier to relate and discuss with each other. We came to feel more comfortable around each other and speak when we feel we need or want to. In other ways, though, we do not all share the same views and feelings or perception of the book...

Engaging Diversity: Fostering Multiple Perspectives

One strongly emerging theme in students’ open-ended reflections was that the common book and programming provided opportunities for critically engaging diverse perspectives around a common text. The following student comments illustrate this point:

A moment when I felt most engaged was a discussion of A Lesson Before Dying …. Our professor posed relevant and debatable topics for us to talk about. I liked that everyone felt comfortable enough to share their opinions in front of the class. It was interesting to hear new perspectives and ideas; it made me think about the book in new ways. Also, I liked how the professor led the discussion, always relating it back to other aspects of the book and probing for even deeper understanding. I liked the opportunity to participate and share my own ideas in a receptive environment.

I am also able to look at things from different perspectives. A simple skill acquired from reading the book and looking at it from different perspectives such as the literature, small group communication, and earth science. Now I am able to relate to people that come from different backgrounds by putting myself in their shoes and looking at things from different perspectives.

Challenges and Areas for Improvement

The common book program has effectively provided a shared intellectual experience to engage a diverse group of first-year students. However, the potential has not yet
Insights Gained From First-Year College Students Participating in a Summer Program

The University of Texas at El Paso (UTEP) is situated on the U.S.-Mexico border and had an enrollment of 20,458 students in fall 2008, of whom 83% were undergraduates. Nearly 86% of the students were from the El Paso region, 6.8% were from Mexico, and almost 75% identified as Hispanic. While the literature suggests that gender, ethnicity, socioeconomic status, and emotional maturity may significantly influence student retention (Kuo, Hagie, & Miller, 2004), research conducted by UTEP’s Center for Institutional Evaluation, Research and Planning (CIERP, 2009) shows that, for the University’s undergraduate population, delayed matriculation from high school, high school rank, math placement scores, and planned hours of employment are better predictors of college departure. Further institutional research indicated that of first-year students from fall 2005-2007 who earned fewer than 30 semester credit hours (SCH) and less than a 2.0 GPA at the end of their first year, only 21% re-enrolled in the following fall semester. To address the attrition problem, the Office for Undergraduate Studies (OUS), implemented a summer intervention in 2009 to increase the retention rates of this at-risk population.

The Accelerated Student Support Through Integrated Success Teams (ASSIST) Program

The Accelerated Student Support Through Integrated Success Teams (ASSIST) program was created by the OUS with funding support from the Texas Higher Education Coordinating Board (THECB). The goal of ASSIST was to increase the fall-to-fall retention rate for these identified at-risk, first-year students by strengthening their academic and study skills.

The four-week intervention involved 80 hours of content and study-skills-based instruction. Program strategies focused on (a) reinforcing reading and math content, (b) providing positive motivation through diverse activities, (c) involving peer mentors to support students during and after the summer program, and (d) integrating critical thinking and reflection in instructional activities.
Students were recruited through personal telephone and e-mail messages from academic advisors and through flyers about the program. The 28 students (i.e., 27 Hispanic, 15 female) who participated in the ASSIST 2009 summer program were divided into four groups based on their major. Each group was assigned a peer mentor (i.e., an undergraduate with a 3.0 or higher GPA) who served as a role model and guide. The program schedule was structured to reinforce academic skills and behaviors interspersed with activities designed to motivate and encourage success. Assessment consisted of focus groups conducted during the first and fourth weeks and at the end of the second summer semester. The feedback obtained from students through the focus groups and their daily interactions with peers and instructors was used to modify the program’s academic and study skills activities, both in the short term (i.e., immediate changes to activities for the ASSIST 2009 program) and for future revisions.

Each day commenced with a planned group activity that conveyed a positive message of student success and included a strategy to build towards that success (e.g., matching common interests and traits on a bingo card to foster group identity). Reading, writing, and discussion content sessions were also held daily using two assigned texts. The Assessment in Learning and Knowledge Spaces (ALEKS), a mastery-based online math program, provided self-paced, customized math instruction. Lastly, various workshops were incorporated into the curriculum covering study skills subjects, such as increasing vocabulary, time management, and assessing learning styles, as well as University career services and counseling services topics. The peer mentors continuously interacted with program participants and took part in all program activities.

A group presentation PhotoVoice project served as the capstone assignment and involved all four program teams. The theme—What do you know now that you wish you knew then - your message to incoming freshmen—was chosen to reinforce the identification of barriers to success as well as the developed strategies to overcome those barriers.

Results and Insights

Overall, the ASSIST 2009 program had immediate positive outcomes. Almost 65% of the participants re-enrolled in fall 2009 compared to the traditional fall enrollment rate of 21% for this at-risk population. Further, 46% of the ASSIST 2009 students enrolled for spring 2010. Participant feedback was also encouraging.

- 57% \( (n = 16) \) reported initiating positive behavior change by the fourth week of the program
- 100% reported an increase in knowledge and skills pertaining to utilization of campus resources

“primary barriers to achieving success in the first year of college were factors other than the difficulty of the subject matter…”
64% (n = 18) reported an increase in knowledge and skills related to reading and writing as a result of the program

89% (n = 25) reported that they gained information related to study skills and strategies as a result of ASSIST 2009

Two students who were enrolled in University summer session courses that followed ASSIST 2009 reported using strategies gained from the program to receive an A and B grade, respectively, in their individual courses. In addition, student comments supported a positive impact.

It [ASSIST 2009] gave me like, a second chance… so it gave me a lot of hope that this semester [fall 2009] will be different.

I am different [after ASSIST 2009] because I am starting to realize that I have the potential to be in school and excel at it. I now know that I can be inspired to do better. I also understand myself better when it comes to the way I learn.

Self-identified issues reported by ASSIST 2009 participants as barriers to their success during the first year of college included inadequate preparation for transition from high school to college in terms of workload and interaction styles of college instructors versus high school teachers; difficulty in forming new social networks; inadequate study skills, including time management and priority setting; issues related to family and childcare; transportation issues, including delays at the U.S.-Mexico border; being employed or needing to have a job; financial need; and medical or health problems.

Participants also provided insight on three important issues through their discussions during the focus groups: (a) primary barriers to achieving success in the first year of college were factors other than the difficulty of the subject matter, (b) instruction and interventions provided during the first year were not always helpful as students had not yet perceived a need, and (c) positive messages and activities promoting student success were essential components of keeping motivation strong.

Modifications Made to the ASSIST 2010

The ASSIST program team has made modifications to the program design for summer 2010 based on 2009 evaluation outcomes and participant feedback. Three students from ASSIST 2009 who significantly improved their GPA in fall 2009 were recruited to participate in ASSIST 2010 as peer role models. ASSIST 2010 modifications include the following:

- Expanding the recruitment period for program participants
- Extending the program over two months in order to maintain networking with the participants closer to the beginning of the fall semester

References


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Increasing the role of academic advising to aid ASSIST participants with addressing academic holds and enrollment

Adding new program modules (e.g., public speaking)

Implications for Interventions Addressing College Success

The observations and outcomes imply the need to examine two critical issues: (a) multiple contexts that can produce barriers for achieving success in the first year of college and (b) the timeframe during which retention interventions are implemented. Focusing solely on difficulties in subject matter as the primary barrier to student success may not address other significant issues that can influence a student’s risk for failure. Such contexts must be explored in terms of unique regional demographics and local issues, such as commuting across national boundaries and the need to be employed while attending college.

Related Articles in E-Source

- Stonebraker, R. J. (2006). Faculty mentoring at-risk first-year students. 3(5), 3

Conclusion

Findings from the University of Minnesota’s common book program echo Kuh’s (2008) work around shared intellectual experiences and the vitality these experiences, such as a common book, bring to deepening students’ academic and social endeavors on university campuses. As Kuh (2008) explains, “when students have read and discussed some of same material in one or more classes, they are more likely to talk with their peers about these ideas outside of class, which infuses an intellectual vitality” (p. 19).
Colleague Spotlight

An Interview With Philip Gardner: Workforce Readiness of Recent College Graduates

Gardner is the director of the Collegiate Employment Research Institute (CERI) at Michigan State University and oversees MSU’s nationally recognized annual college labor market study. His research interests include the transition from college to work, early socialization and career progression in the workplace, and workforce readiness. He is currently the editor of the Journal of Cooperative Education and Internships and, in addition to authoring numerous articles and reports, is a contributing author to the seminal work The Senior Year Experience: Facilitating Integration, Reflection, Closure, and Transition.

Editor’s note: National Resource Center staff had the opportunity to meet and talk with Philip Gardner during his recent visit to the University of South Carolina campus. The following interview captures his thoughts on the workforce readiness of graduating college students and the skills gap employers perceive exists in this population.

Gardner will be the keynote speaker at the 17th National Conference on Students in Transition to be held November 13-15, 2010, in Houston, Texas. For more information on this event, please visit http://www.sc.edu/fye/SIT/index.html

For more than 25 years, under the auspices of CERI, Philip Gardner has studied the initial employment trends of recent college graduates and the activities that enhance students’ workplace potential as they transition out of college. Gardner began exploring the differences between workplace expectations and new graduates’ readiness (i.e., the skills gap) in the 1990s with a focus on engineering, the field that primarily drove the production-based economy of the time. His research resulted in the identification of core competencies that undergraduates needed to develop during college to successfully enter the workforce; however, institutions were also charged with anticipating how skills would change over time to ensure their students remained prepared.

While institutions focused on making curricular changes to teach to the identified competencies, the charge to anticipate and prepare students for future skills, for the most part, was neglected. Gardner and his colleague Larry Hanneman also evaluated job descriptions for full-time and internship positions and noted key words describing desired employee qualities (Hanneman & Gardner, 2010).
From this combined work and other research, nine critical abilities (i.e., metacompetencies, Figure 1) were distilled to reflect what is needed in today’s rapidly changing economy, which has shifted from production-based to knowledge-based. Metacompetencies “transcend a specific situation and can be applied across different situations depending on the context of the assignment or task” (Hanneman & Gardner, 2010, p. 2). As such, they do not represent vocational traits or content but are indicators of higher-level cognitive skills and critical thinking. Gardner stated, for example, that analyzing, evaluating, and interpreting data is not limited to math majors but also applies to professionals in a wide variety of fields who must be able to understand datasets and draw out conclusions.

Of the nine metacompetencies, employers in the 2007 MSU annual labor market study identified the ability to build and sustain working professional relationships as the most critical skill closely followed by (a) analyzing, evaluating, and interpreting data and (b) engaging in continuous learning. Beyond these, the “golden constant” that all employers seek and all new graduates must possess to be successful in the hiring process is initiative.

An ability to
• Build and sustain working professional relationships
• Analyze, evaluate, and interpret data from various sources
• Engage in continuous learning
• Use oral persuasion and justification in order to provide direction for organization
• Plan and manage a project
• Create new knowledge
• Understand impact of company practices in a global (economic, societal, and environmental) setting
• Build a successful team
• Coach, mentor, and develop others

What Gardner found notable in his and other research was the explosion in skills escalation demonstrated by the fact that the requirements for today’s internships were
often the same skills needed for an entry-level position five years ago. Hence, in many fields, the internship has become the new entry-level position and a high-stakes experience necessary for obtaining meaningful work after college. Further, entry-level jobs today are frequently requiring the same skill set as middle-management positions posted six to seven years ago. As baby boomers are moving out of the work place, these positions are being filled by recent graduates who are expected to immediately use and enhance their education “coming right out of the gate.” The 2009-2010 CERI employment trend report noted

The talent wars will continue as employers elevate the performance expected of new entrants into the workforce (regardless of degree level attained) and find fewer qualified candidates. There are many signs that employers are beginning to view advanced skill and competency proficiency as a fundamental hiring factor in addition to major/disciplinary knowledge. Also, employers are actively seeking students that demonstrate flexibility and entrepreneurial acumen. (CERI, 2009, p. 20)

To illustrate the broadening skills gap and how higher education has not kept pace with workplace expectations, Gardner pointed to the metacompetency involving the ability to plan and manage a project, which he described as the “antithesis of a college education.” He explained that new hires are being told “here is your office, your computer, some data sets, and a list of concerns that we (the employer) have, and we expect you (working on your own) to offer solutions for.” Yet, just a month prior, these new hires were sitting in classrooms where they expected—and were given—continual and detailed direction on what to do and how to do it and for four years were walked through the entire learning process with 15-page syllabi, handouts, PowerPoints, electronic study notes, and constant support. According to Gardner, most new college graduates have not had the training or experience to plan or manage a project independently, and he attributes this to a lack of ambiguity in college learning to encourage students to figure things out for themselves and make meaning of their knowledge.

Workplace and education requirements are inextricably linked, and it is not surprising that as employers complain of the lack of workforce readiness, a similar complaint can be heard in higher education regarding the lack of students’ academic readiness. Gardner stated that in a production-based economy, a high school education was sufficient to provide the majority of necessary labor force skills with college reserved for management-level and advanced training. Workers needed a depth of knowledge in their skill or field but were not necessarily required to have a breadth of knowledge (e.g., cross-training or understanding in other disciplines, global perspective, ability to communicate knowledge to diverse populations and in diverse formats). As the economy has shifted to a service-driven, knowledge based one, high school has become preparation for postsecondary training, and two-year and four-year institu-
tions (primarily two-year) have become the training grounds for new jobs. Education and the workplace must mutually support each other. For Gardner, the underlying problem is that education has not changed with the economic shift and is out of alignment with the skills that are required in the workplace. To be successful in the work force, new graduates need both depth (i.e., mastery in their chosen field and additional fields as they grow professionally) and breadth (i.e., expanded communication and boundary-crossing skills, global understanding, developed self-awareness), which Gardner describes as a T-shaped professional (Figure 2). In short, a new employee must possess domain skills and all nine metacompetencies, including initiative—a tall order for new graduates.

![T-Shaped Professionals](image)

**Figure 2.** T-shaped professional: combining problem solving (deep) and communication (broad) skills. Reprinted with permission from *T-shaped professionals* (CERI, 2010).

Gardner sees millennials lacking the depth of knowledge coming out of college that previous generations possessed (the bottom of the T). He attributes this in part to changes in learning styles introduced by the Internet and technology. In other words, the ability to access information from a variety of different points, time spans, and sources has led to more nonlinear learning, which at times may be too superficial. As a result, the current generation of students may not appear as “smart” as their predecessors. Gardner refutes this notion citing his experience with millennials who are
addressing this lack of depth in creative ways. He stated that he and other boomers are increasingly being approached by younger workers to team up on projects. The boomers provide the depth of field while the millenials have the technological expertise to span boundaries and add breadth, creating an opportunity for both generations to gain the mastery needed to become T-professionals.

Gardner challenges faculty and institutions to look ahead and anticipate emerging skills to better prepare their students for the workforce of the future. Strategies that can help prepare students include:

- Less structured and more ambiguous learning to encourage students to make use of their knowledge and develop critical thinking skills (e.g., service-learning, problem-based projects)
- More effective and intentional reflection exercises that engage the student while he or she is actively involved with a task (strategic moments in the learning environment) rather than just a summary or check up after the experience
- Stronger emphasis on seeking out internship, co-op, study abroad opportunities, and cocurricular experiences, which can accelerate the mastery of the nine metacompetencies
- Partnering with faculty on campus or with boomers in the workplace on projects or research to build breadth and depth of knowledge

In closing, Gardner was adamant that today’s student—and worker—must be a passionate learner (i.e., the third highest ranked ability), which is a lifelong commitment. Faculty must instill this enduring passion for knowledge in their students as it will help individuals manage all areas of their lives—not just the workplace.