

Academic Coaching for Enhanced Learning

Author(s): Andrew Barkley

Source: *NACTA Journal*, Vol. 55, No. 1 (March 2011), pp. 76-81

Published by: North American Colleges and Teachers of Agriculture (NACTA)

Stable URL: <https://www.jstor.org/stable/10.2307/nactajournal.55.1.76>

REFERENCES

Linked references are available on JSTOR for this article:

https://www.jstor.org/stable/10.2307/nactajournal.55.1.76?seq=1&cid=pdf-reference#references_tab_contents

You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



North American Colleges and Teachers of Agriculture (NACTA) is collaborating with JSTOR to digitize, preserve and extend access to *NACTA Journal*

JSTOR

Academic Coaching for Enhanced Learning

Andrew Barkley¹
Kansas State University
Manhattan, KS 66506



Abstract

The relationship between teachers and students has changed. Many writers have put forth hypotheses and ideas about how the current generation of students (Gen-Y; the “Me Generation”) differs from previous generations. Others focus on teaching methods, course strategies, and technological tools that are effective in the new environment. The objective of this research is to investigate the possibility of “academic coaching” for enhanced student responsibility and higher levels of learning. The concept of “academic coaching” refers to a relationship between teachers and students that is proactive, responsive to student learning outcomes, and committed to student success. The teacher/learner relationship becomes less like a formal instructor and more like a coach.

Introduction

M.S. Hunter (2006, p. 9) suggested that student attitudes, behaviors, and experiences are constantly changing, due to differences in world events and culture that shape their growth and development. Many writers have put forth hypotheses and ideas about how the current generation of students (Gen-Y; the “Me Generation”) differs from previous generations (Eisner, 2004; Pinder-Grover and Groscurth, 2009; Taylor, 2010). Others have focused on teaching methods, course strategies, and technological tools that are effective in the new environment (Barr and Tagg, 1995; Weimar, 2002; Michaelson et al., 2004).

The objective of this research is to investigate the possibility of “academic coaching” for enhanced student responsibility and higher levels of learning. The concept of “academic coaching” refers to a relationship between teachers and students that is proactive, responsive to student learning outcomes, and committed to student success. The teacher's role becomes less like a formal instructor and more like a coach.

Recently, the author's teaching assignment changed in the Department of Agricultural Economics at Kansas State University. This change provided an opportunity for experimenting with pedagogical methods. The author taught a Junior-level intermediate microeconomics course, AGECE 505, from 1988 to 1994, then was reassigned to the same course in 2008. After the 14-year gap, the author returned to the course with the same syllabus, assignments, teaching style, and expectations as in 1994. This original teaching style was found to no

longer fit the learning style and expectations of the students. In 2008, following past experience, lengthy and rigorous weekly assignments were assigned for this rigorous course, the foundation of applied microeconomics. Challenging examinations were administered, with the hope that rigor and difficulty would motivate students to learn the material. All but the best students remained uninspired.

The following year went much better, when “collaborative learning,” was introduced to the course. The syllabus was modified to include weekly collaborative, team-based laboratory assignments to replace the homework assignments. The level of rigor remained the same, and the examinations were identical in coverage and difficulty. Oral team exams were included to better engage students and prepare them for the individual examinations. Expectations about student behavior and policies were altered to bring them more in line with a new generation of students. The results included higher levels of learning, more enthusiasm for the course material, and greater willingness to apply economic principles to the issues that arise in everyday life.

Changing from a traditional instructor with rigid expectations to an “academic coach” provided for large enhancements in the learning environment, and higher levels of learning. Teaching college courses is difficult, dynamic, and challenging: the exact impacts of the changes on student learning remain unclear, but some evidence of positive change is discussed and quantitative evidence for higher levels of learning and student satisfaction is presented below.

Background and Literature Review

This research is based on college-level teaching experience and in-depth reading on the topics of “Generation Y,” effective instruction, and classroom experiments in academic coaching. The foundation of academic coaching is teachers who take on characteristics, methods, and attitudes of a coach, such as an athletic coach, a “personal trainer,” or life coach. The Association of American Colleges and Universities (2002) commissioned a panel that concluded that change in higher education is urgently needed, since increased college attendance has been accompanied by faltering performance of many students. This sentiment is echoed throughout the higher education community. Some writers have emphasized differences in generations. Taylor (2008) points out that in spite of improvement in areas of student-centered learning, outcome-based initiatives, and accountabil-

¹Professor, Department of Agricultural Economics

ity programs were put in place at most colleges and universities, there remain serious issues in student persistence and completion, meaningful learning, and workplace readiness at many schools (p.3.3). Taylor (2008) also summarized a growing literature on Generation NeXt (also called Millennials or Generation Y) by recognizing that current college students often tend to feel a sense of entitlement, want to negotiate, and will protest vigorously (or leave) if their expectations of ease and instant response, excellent service, and painless success are not met (p. 3.3). In what follows, we will provide an economic explanation for these potential behaviors.

Pinder-Grover and Groscurth (2009) found that the most important characteristics that Millennials bring to the university classroom are their preferences for collaboration, connection, and creating social change. This can be positive for instructors, since research has consistently demonstrated that collaboration and group discussion enhance student learning. Eisner (2004) presented three classroom initiatives created to teach Generation Y students: a performance contract, investigative report, and a class game show.

Perry and Kennedy (2009) reported a large and growing number of underprepared college students. They reported that peer advising of underprepared students, provision of course-specific skills, and tutoring are all good ways to begin to address the increasing problem. The education literature provides two tested strategies to assist struggling students: "Supplemental Instruction," (Blanc et al., 1983) and "Self-Regulated Learning" (Glenn 2010). Supplemental Instruction, according to Blanc et al. (1983), is an academic support system that has used peer advising to teach review sessions to students in challenging courses. Congos and Schoeps (1993) provided empirical evidence that supplemental instruction has produced higher academic performance and greater levels of retention at the University of Missouri-Kansas City.

Glenn (2010) reported on "Self-Regulated Learning," a series of steps that encourage students to evaluate how they study and notice when they are going wrong. Zimmerman (1990) defined self-regulated learning as including three features: (1) use of self-regulated learning strategies, (2) responsiveness to self-oriented feedback about learning effectiveness, and (3) interdependent motivation processes. Self-regulated students select and use self-regulated learning strategies to achieve desired academic outcomes on the basis of feedback about learning effectiveness and skill. Winne (1995) elaborated on self-regulated learning, and provided evidence of the future importance of self-regulated learning. Glenn (2010) reported that explicitly coaching students to think about their study processes and to monitor their learning can pay large dividends. By providing constant feedback, students

can see their own strengths and weaknesses. The two "golden rules" of Zimmerman's self-regulated learning are: (1) give students fast, accurate feedback about how they are doing, and (2) make them demonstrate that they actually understand the feedback that has been given (Glenn, 2010). According to Glenn (2010), institutions that have used self-regulated learning have found that (1) the methods have a much greater impact if they are embedded within the course context, and (2) tutoring and counseling aren't enough... a more intrusive strategy is needed to build specific skills. Glenn's concluded that college students of all types, not just obviously struggling students who are assigned to remedial classes, will learn better if they think critically about their own studying (Glenn, 2010). Butler and Winne (1995) highlighted the importance of feedback on student achievement, and synthesize an elaborated model of self-regulated learning based on both educational and psychological literatures.

Weimar (2002) stated that the higher education community has finally discovered learning, and that resources are needed to cultivate and capitalize on that interest. She found it difficult to explain the idea that we have ignored learning for such a long time, finding it more a case of benign neglect than willful rejection (p. xi). Collaborative learning, or group work, has shown students' ability to learn from and with each other (Qin et al., 1995). Weimar (2002) concluded that group work, including collaborative or cooperative learning styles, has gained considerable popularity and wider use. However, Weimar warns that like all other instructional methods, good group learning experiences do not happen automatically (p. 88).

Michaelson et al. (2004) have honed collaborative learning strategies into a more specific framework for teaching "Team-Based Learning." Team-Based learning is a form of small-group learning designed for college classrooms, which included incentive and corrective feedback. The authors claim that groups are transformed into high-performance teams.

An Economic Model of Changes in Higher Education

Many authors have focused on generational differences to explain student changes (Hunter, 2006; Taylor, 2008). However, great understanding can be gained by focusing on the economic determinants of college student decision making. Specifically, a simple model of the demand for college, and for specific college courses, is derived here to enhance our ability to understand how academic coaching might lead to better outcomes than traditional teaching methods. Economic theory asserts that consumer choices can be determined by changes in prices and income, holding tastes and preferences constant (Stigler and Becker, 1977). In this framework, if higher education is considered to be a purchased good, then the

Academic Coaching

demand for higher education (Q^d), can be considered to be a function of price (or tuition, $=P$), and income ($=M$), as in equation (1).

$$(1) Q^d = f(P, M, E(R))$$

Since a college degree is not only a consumer good, but also an investment in human capital (Becker, 1975), the expected returns ($E(R)$) of the purchase also determine the demand for college. One of the major determinants of the cost of college (P) is technological change, which places downward pressure on the price of college over time, as new methods of information acquisition and dispersal are discovered and adopted. Technological change also increases the quality of many aspects of higher education, including technology use in the classroom, and the use of the internet for a wide variety of academic tasks.

In the United States (USA), income has increased significantly for college students and their families. Pryor et al. (2008) found that in 2005, entering freshmen came from households with a parental median income of \$74,000, 60% higher than the national average of \$46,326. This represented a 15percentage point increase from 1971, when students' median family income was \$13,100, 45% than the national average of \$9,028. These large increases in the standard of living have led to more students choosing to go to college, and greater expectations of the quality of their "purchase." The cost of attending college is also increasing. The U.S. Department of Education (2010) reported that for the 2008–09 academic year, annual prices for undergraduate tuition, room, and board were estimated to be \$12,283 at public institutions and \$31,233 at private institutions. Between 1998–99 and 2008–09, prices for undergraduate tuition, room, and board at public institutions rose 32% and prices at private institutions rose 24%, after adjustment for inflation.

Although the cost increases are large, they have been more than offset by the expected returns from attending college, so enrollment has increased. According to the U.S. Department of Education (2010), the traditional college-age population rose 14% between 1998 and 2008, which was reflected by an increase of 32% in college enrollment. Between 1998 and 2008, the number of full-time students increased by 37% compared to a 24% increase in part-time students. Higher incomes and higher costs have led to greater levels of search for colleges that prospective students and their parents believe are most attractive. Pryor et al. (2008) provided evidence that in 1967, less than one in five entering college students (19.9%) reported applying to four or more colleges, a figure that has nearly tripled to 56.5% in 2006. Technological change has led to a massive increase in distance education courses. According to the U.S. Department of Education (2008), of the 600 public, four-year colleges and universities in the United

States, 88% offered college-level credit-granting distance education courses in 2006–2007. The college experience has changed dramatically, and now includes a much greater number of transfer college credits from other institutions, as well as from distance and evening course programs within the same institution.

With the determinants of the demand for college as a foundation, we can now modify the model, to better understand why academic coaching might provide advantages over traditional pedagogies in the college classroom. The model in equation (1) can be modified to derive the demand for an individual college course, as in equation (2):

$$(2) Q_i^d = f(P_i, P_o, Z_i, Z_o)$$

For an individual course ($=_i$), demand is determined by both (1) the price of the course (P_i), and the price of close substitute courses ("others" $=P_o$). Large increases in income and advances in technological change have led to a large set of close substitutes available for virtually all college courses, at most colleges and universities. Not only is price an important determinant of the demand for an individual course, but course characteristics (Z_i) also influence student enrollment and retention within a given college course. Course characteristics include: time offered, location, class size, and course format, and teacher characteristics, such as quality, level of engagement, and energy. Course and teacher characteristics have become increasingly important determinants as incomes increase and search costs and transfer costs have decreased enormously. Notice that this model provides some economic explanation for Taylor's (2008) student demands for "painless success."

Changes in income and technology of education have led to a truly large increase in the number of close substitutes available to students selecting courses and instructors. This gives students, "the power of choice," resulting in a scramble for teachers to conform to the new reality. Hunter (2006) concluded that the days of the 'let them sink or swim' attitude of faculty and staff toward new students are obsolete. Deliberate and intentional efforts to assimilate new students into the institutional culture and environment are essential if institutions are to expect transitional students to thrive (p. 10).

To summarize, the number of options available for each college course has increased dramatically over time, since numerous substitutes exist, including online course and transfer courses. Therefore, students are less willing to accept any course requirement or teacher characteristic that creates stress or tension, relative to the characteristics of many other available courses and teachers. This economic model provides the theoretical foundation behind the idea of academic coaching.

Academic Coaching

Coaching began as an athletic concept, but has evolved into a description of a type of relationship. The International Coach Federation (ICF) defined coaching as an on-going relationship which focuses on clients taking action toward the realization of their vision, goals, or desires. The IFC emphasized that coaching uses a process of inquiry and personal discovery to build the client's level of awareness and responsibility and provides the client with structure, support and feedback. The IFC also asserts that the coaching process helps clients both define and achieve professional and personal goals faster and with more ease than would be possible otherwise.

Academic Coaching, then, can be defined as using a coaching style relationship to enhance student learning. Some firms, and numerous private consultants, offer "academic coaching" services to students for profit. One such company is Inside Track (the citation for Inside Track, together with alcohol.edu and MAP-works below, are for information only, and do not imply endorsement from the author or Journal), which has coached over 250,000 students at over 50 campuses. Inside Track has empirical evidence that their programs have increased student achievement, retention rates, and engagement. Other examples include alcohol.edu, an alcohol coaching program (alcohol.edu, 2010), and MAP-works (making achievement possible), which surveys enrolled students, and provides detailed information about students to their teachers and housing assistants. Programs that provide coaching-style interventions to enrolled college students are growing rapidly, as are websites that offer a great deal of information about issues facing college students and how to assist them. The premise of these for-profit institutions is that some students do not have the necessary skills for adjusting to college life and succeeding academically.

Academic coaching for college instructors starts with this same assumption: that the levels of success and retention are low, and could be improved through appropriate intervention, and changes in teaching style. Retention of students is a common goal for teachers, administrators, and policy makers. Hunter (2006) pointed out, however, that the motivation for enhanced retention varies across groups. She asserted that student-centered faculty and staff embrace sincere desires and altruistic attitudes toward helping students learn and succeed. Institutional leaders understand the very real fiscal cost of student attrition and the equally disturbing public relations consequences of unsuccessful students. Academic coaching provides a strategy to enhance student success, and as a result, retention rates.

The main idea of academic coaching is for the instructor to switch from a dispassionate, disinterested lecturer to an engaged, interested academic coach who is enthusiastic, proactive, and intentional

about student success. The most important characteristic of academic coaching is to seek and develop a relationship with students. A coach, or mentor, type of relationship might be more typical at small schools or colleges that take pride in student success. The more teachers learn and know about their students, the better they are able to meet their educational and academic needs.

Early identification of struggling students provides a way to help those who need it, at the appropriate time. Academic coaches take this role seriously, to intervene with feedback that allows the student to move toward positive outcomes. This idea is based on research results of Self-Regulated Learning (Glenn, 2010; Zimmerman, 1990). Academic coaches also provide effective provision of help for students to enhance their learning, and learning outcomes, recognizing that not all students are equipped with academic, study, and social skills at the college level. Teachers who assign homework, labs, exams, projects, and presentations could usefully provide students with information on how to succeed in these tasks. In the past, course assignments were given, with little or no instruction on how to do them. Today, student success is likely to be enhanced with rubrics, instructions, strategies, and any other information about how a successful assignment is to be completed. Teachers can no longer assume that students know what they are looking for. Similar to this, many current students, including many successful students, may lack basic study skills. Since many college credits are earned at the high school level, a growing number of students bring "high school level" study habits to college (Perry and Kennedy, 2009). Academic coaches could usefully make available more information on academic skills to students. Stanford University's Undergraduate Academic Life program provides students with the opportunity to make an appointment with an academic coach, attend workshops on time management, reading and note-taking, and procrastination. Stanford also posts "study tip resources" to provide useful tactics for students on many aspects of college life, including taking exams, note taking, reading, and time management (Stanford University, 2010).

Learning in groups, through collaborative or "team-based" learning, can provide huge benefits to students, through a process of "belonging to a team" (Michaelson et al. 2004; Weimar, 2002). Peer review can provide a great motivation for many students, who may not respond as well to teacher feedback. Peers can also provide useful tutoring, or study sessions, as in the "Supplemental Instruction" paradigm (Blanc et al., 1983; Congos and Schoeps, 1993). Often, students respond well to teacher relationships combined with peer study and review help (Blanc et al., 1983).

Academic coaches can also motivate students with changes in rules, regulations, and course

Academic Coaching

requirements to better meet student expectations and needs. Changing from a rigid, "old-school" professor to one that accommodates student activities allows instructors to relate better with students, and capture more respect than rules and regulations that have not kept up with the increasing demands placed on undergraduate students.

Quantitative evidence on how well the shift from traditional pedagogical methods to collaborative learning is provided in two ways: student evaluations of teaching (Table 1) and summary statistics of exam scores (Table 2). In Table 1, student evaluation scores are reported for traditional teaching methods (2008) and collaborative, academic coaching methods (2009 and 2010). Student evaluations capture only a portion of what is truly going on in a course, but the average numbers reported here demonstrate enhanced scores for all categories measured. Perhaps the most important score is "Amount Learned," which

Table 2. Summary of AGECE 505 Exam Scores, Kansas State University, 2008-2010

Exam 1	2008	2009	2010
Average	79.9	82.5	85.5
Maximum	99.0	98.0	100.0
Minimum	55.0	60.0	44.0
Standard Deviation	11.9	10.3	9.6
Median	81.0	85.0	87.0
Exam 2	2008	2009	2010
Average	76.7	78.2	80.3
Maximum	99.5	100.0	100.0
Minimum	52.0	53.0	57.0
Standard Deviation	12.2	13.1	11.5
Median	75.3	80.0	80.0
Exam 3	2008	2009	2010
Average	77.3	77.1	77.8
Maximum	98.0	100.0	99.0
Minimum	36.0	51.0	30.0
Standard Deviation	12.6	12.6	13.9
Median	78.8	77.0	80.0

Table 1. Summary of AGECE 505 Student Evaluations, Kansas State University, 2008-2010

Year	Interested In Teaching	Well Prepared	Available for Help	Teacher Effectiveness	Amount Learned	Overall Course Rating	Percent Recommend Course to Others
<i>Traditional Teaching Methods</i>							
2008	4.7	4.7	4.8	4.5	4.5	4.4	89
<i>Academic Coaching, Collaborative Learning</i>							
2009	4.9	4.7	4.8	4.8	4.6	4.7	100
2010	4.8	4.8	4.8	4.7	4.7	4.8	100

Note: Rating Scale: 5=Very High, 4=High, 3=Medium, 2=Low, 1=Very Low.

increased from a 4.5 on a 5-point Likert scale in 2008 to a 4.6 in 2009 and 4.7 in 2010.

Table 2 provides evidence of exam performance in AGECE 505 for three spring semester courses, 2008-2010. For the three exams reported, average (mean) and median scores increased in semesters when collaborative learning was included in the course. One exception is Exam 3 in 2009, when average scores decreased from 77.3 to 77.1. This is unlikely to be a statistically significant change. Note that there two additional exams were administered in all three semesters, a fourth midterm and a final exam. The results of these exams are not comparable, since many students have already earned enough points during the first two-thirds of the course that they do not need to make their highest effort to achieve the desired course grade.

Employers have ranked teamwork skills as the most important skill or ability when hiring new employees (Hart, 2006). Although there is no direct evidence on employer attitudes towards the specific

changes to incorporate academic coaching in AGECE 505, there exists a great deal of anecdotal evidence that employers are enthusiastic about college courses that enhance teamwork skills.

Maintaining rigor is crucial for instructors who adopt these new teaching practices. This concept may not seem possible, but the story of Elaine Smokewood provides evidence that it can happen (Young, 2010). Smokewood, a 54-year old English professor at Oklahoma City University, is losing her ability to speak due to Lou Gehrig's disease.

She argues that she was surprised to learn that she is now able to teach more effectively. Smokewood maintains that she became a totally different kind of teacher by actively listening to her students. Smokewood learned that if she listened carefully, thoughtfully, generously, and nonjudgmentally, her students would delight her with the complexity of their thinking, the depth of their insight, humor, compassion, wisdom, and honesty (Young, 2010). Truly, this is also an example of academic coaching: changing teaching styles to become more in tune with students.

Conclusions

Tinto (1999) made the claim that student learning is the key to student retention. Therefore, the strategy of academic coaching is likely to have a positive impact on student retention, since Tinto showed that the involvement of faculty, and not just student affairs professionals, is critical to institu-

tional efforts to increase student retention. Academic coaching could provide a way for interested faculty to proactively and deliberately try to form healthy working relationships with students. A coaching relationship provides important feedback, support, and challenge to students that allow them to thrive in academics and in life. Some evidence has been provided that altering one's approach in the classroom allows for more engaged learners and higher levels of student learning.

Literature Cited

- Alcohol.edu. 2010. <http://www.outsidetheclassroom.com>.
- Association of American Colleges and Universities. 2002. *Greater Expectations: A new vision for learning as a nation goes to college*. National Panel Report. Washington, D.C.
- Barr, R.B. and J. Tagg. 1995. From teaching to learning—A new paradigm for undergraduate education. *Change*, Nov.-Dec.: 13-25.
- Becker, G.S. 1975. *Human capital: A theoretical and empirical analysis, with special reference to education*, 2nd ed. Chicago, IL: The University of Chicago Press.
- Blanc, R.A., L.E. DeBuhr, D.C. Martin. 1983. Breaking the attrition cycle: The effects of supplemental instruction on undergraduate performance and attrition. *Journal of Higher Education* 54(1): 80-90.
- Butler, D.L. and P.H. Winne. 1995. Feedback and self-regulated learning: A theoretical synthesis. *Review of Educational Research* 65(3): 245-281.
- Congos, D.H. and N. Schoeps. 1993. Does supplemental instruction really work and what is it anyway? *Studies in Higher Education* 18(2): 165-178.
- Eisner, S. 2004. Teaching generation Y college students: Three initiatives. *Journal of College Teaching and Learning* 1(9): 69-84.
- Glenn, D. 2010. How students can improve by studying themselves: Researchers at CUNY's graduate center push 'self-regulated learning.' *The Chronicle of Higher Education* Feb. 7.
- Hunter, M.S. 2006. Lessons learned: Achieving institutional change in support of students in transition. *New Directions for Student Services* No. 114: 7-15.
- Inside Track. www.insidetrack.com.
- International Coach Federation. www.coachfederation.org.
- MAP-works. <http://www.map-works.com>.
- Michaelson, L.K., A.B. Knight, and L.D. Fink. 2004. *Team-based learning: A transformative use of small groups in college teaching*. Sterling, VA: Stylus.
- Peter D. Hart Research Associates, Inc. 2006. How should colleges prepare students to succeed in today's global economy? Based on Surveys Among Employers and Recent College Graduates Conducted on Behalf of: The Association of American Colleges and Universities.
- Perry, D.M. and K.E. Kennedy. 2009. Teaching 'Grade 13.' *The Chronicle of Higher Education* December 13.
- Pinder-Grover, T. and C.R. Groscurth. 2009. *Principles for teaching the millennial generation: Innovative practices of U-M Faculty*. CRLT Occasional Papers. Center for Research on Learning and Teaching, University of Michigan, No. 26.
- Pryor, J.H., S. Hurtado, W.S. Korn, and J. Sharkness. 2008. *The American freshman: National norms for fall 2007*. www.heri.ucla.edu. Higher Education Research Institute at UCLA.
- Qin, Z., D.W. Johnson, and R.T. Johnson. 1995. Cooperative vs. competitive efforts and problem solving. *Review of Research* 65(2): 129-143.
- Stanford University. *Undergraduate Academic Life*. <http://ual.stanford.edu/>.
- Stigler, G.J. and G.S. Becker. 1977. De gustibus non est disputandum. *The American Economic Review* 67(2): 76-90.
- Taylor, M. 2008. Meet the students: Finding common ground between student and institutional goals. 2008 Higher Learning Commission Collection of Papers. Volume 3: Finding Common Ground: Programs, Strategies, and Structures to Support Student Success. Chapter 1: Understanding and supporting all types of Learners 3: 3-9.
- Taylor, M. 2010. *Teaching generation NeXt: A pedagogy for today's learners*. A Collection of Papers on Self-Study and Institutional Improvement, 26th edition. The Higher Learning Commission.
- Tinto, V. 1999. Taking retention seriously: Rethinking the first year of college. *NACADA Journal* 19(2): 5-9.
- U.S. Department of Education. 2008. National Center for Education Statistics. *Distance Education at Degree-Granting Postsecondary Institutions: 2006-2007 (NCES 2009-044)*.
- U.S. Department of Education. 2010. Institute of Education Sciences. National Center for Education Statistics. *Digest of Education Statistics, 2009*. Thomas D. Snyder and Sally A. Dillow. April 2010. NCES 2010013.
- Weimar, M. 2002. *Learner-centered teaching*. San Francisco, CA: Jossey-Bass.
- Winne, P.H. 1995. Inherent details in self-regulated learning. *Educational Psychologist* 30(4): 173-187.
- Young, J.R. 2010. Taught by a terrible disease. *The Chronicle of Higher Education* January 3.
- Zimmerman, B.J. 1990. Self-regulated learning and academic achievement: An overview. *Educational Psychologist* 25(1): 3-17.