Annotated Bibliography of Recent Research Related to Academic Advising

Lee, N., & Horsfall, B. (2010). Accelerated learning: A study of faculty and student experiences. *Innovative Higher Education 35*, 191–202.

Many universities now offer courses in short-delivery time frames. Lee and Horsfall examine faculty and student experiences with accelerated courses offered in 6-week sessions and compared them with courses offered in 12 weeks at Swinburne University of Technology, a metropolitan university in Australia. They sought the opinions of instructors and students who had experienced courses of both lengths. Although over 500 students had taken both types of courses, only 12 faculty members identified from university records had taught the same course in both a 6- and 12-week time frames. They gathered student information via an electronic survey containing 21 items:Nine questions related to demograpic information and 12 other scaled and free-response questions related to learning experiences. One hundred and fourteen students, the majority of which (78%) were studying full-time, participated. Eighty percent of the student participants were employed in paid jobs.

In contrast, due to the small population, the authors gained information from all 12 eligible faculty participants through interviews rather than electronic survey. They questioned faculty members concerning assessment and learning outcomes, curriculum and teaching methods, changes made to courses, perceptions of student experience, policy and procedures, as well as management and organization.

Most students (76%) rated their overall accelerated learning experience as positive, whereas 17% rated it as neutral, and 7% rated it as negative. The majority (68%) reported that the learning difficulty is similar across course lengths, while 18% reported that learning was easier in the short-term course. These percentages were similar for confidence about knowledge of material with 61% feeling equally confident regardless of term length, 25% reporting being more confident of their knowledge in short-term courses, and 14% reporting feeling less confident in the 6-week courses. Most students (74%) reported increased effort and motivation in accelerated courses.

Faculty members and students alike felt that learning experiences were influenced by a wide range of factors. Faculty members felt that accelerated courses were most effective when students, regardless of ability, were highly motivated. Some faculty members felt that certain students were not prepared for accelerated learning either in terms of expectations about the workload required, their language skills, or their prior learning experiences. Both student and faculty responses indicated that accelerated learning was more successful with an active learning cycle of theory, practice, and feedback. Peer support and guidance was also important to the overall learning experience. Faculty respondents noticed that students formed group cohesiveness early, an observation confirmed by a majority of student participants (58%) who agreed that developing peer support and friendship was easier in the 6-week classes. Some open-ended comments by students confirmed this finding as well.

With respect to discipline and type of content that can be covered in 6-week classes, faculty responses were mixed. Two faculty members felt that technical or skills-based content was not appropriate for accelerated courses due to inadequate time for familiarity, practice, and investigation, while three faculty members held a different view and suggested that short-term courses were appropriate for technical content, but not for conceptual content. The remaining seven faculty members reported no preference in terms of type of content. Four of these seven indicated that student success in accelerated courses depends more on teaching methods and the remaining three felt they had insufficient knowledge to comment. Student responses showed no significant patterns regarding differences in learning experiences or satisfaction between the different time frames with respect to discipline or type of content. However, some students reported not having enough time to read materials for courses taken in the accelerated time frame.

Five faculty expressed concern about student workload in the courses with shorter duration. Some suggested that enrollment in accelerated courses be restricted to one course at a time, a view supported by student responses as well. Approximately 80% of the students who provided favorable comments about the accelerated format had only enrolled in one short-term course at a time. Student comments also discussed workload. For example, one student indicated feeling confident with the material due to being enrolled in only one course

as opposed to the typical four courses during the regular semester, while other students commented on the struggle of balancing work and academic responsibilites during the accelerated term.

Concern about both faculty and student absences was expressed due to the pace of the 6-week courses. Students suggested contingency plans such as posting materials to the Internet in the event of faculty absences. Faculty feared students who missed classes would have difficulty catching up. However, faculty and student responses seemed to indicate that student absences tended to be lower in the short-terms classes.

With respect to assessment, more frequent formative assessments (i.e., those that are designed primarily to assist learning and give feedback as opposed to make a final judgment about student learning) appeared to be beneficial in the short-term classes. More conventional testing was not reported as problematic, but three instructors did feel that long essays presented difficulties due to the amount of time needed to absorb and reflect on course content. Their concern apparently was not shared by students. However, various students suggested that the timing of assessments be improved to avoid overlap with other class tasks or be concentrated at the end of the term. Some faculty members reported difficulties maintaining the integrity and quality of the courses while adjusting assessments to be manageable for both themselves and students within the short time frame. Many students offered favorable comments about receiving more timely feedback than happens in 12-week terms; however, a few students reported not receiving any feedback during their accelerated course. Most faculty members agreed that feedback was more timely in the accelerated courses, although three faculty respondents reported that in large classes with frequent assessments, they were challenged to provide feedback quickly.

The final themes in the analysis were related to organizational issues for the accelerated courses. The accelerated courses were offered between semester breaks, which posed a number of problems. First, students sometimes enrolled in the courses prior to the posting of the previous semester's grades, making it difficult to verify sucessful completion of prerequisite courses prior to enrollment in the accelerated courses and making it difficult to connect students in a timely manner to support services when needed. One half of the faculty members felt they did not have enough time to prepare to teach the course, which they normally do between semesters. Staffing was also an issue, particularly when it came to locating, hiring, and preparing staff on short-term contracts.

Although the authors found no consensus about the appropriate number of contact hours per class session or number of days per week to offer the courses, eight faculty membes expressed concern about the distribution of contact hours over the short-term course. Some felt class sessions should be scheduled closer together while others felt that time in between sessions enable students the needed time to prepare and reflect. Only three students offered comments on this issue, indicating a preference to have accelerated classes be run on the same day.

Finally, some concerns were raised by both students and faculty members concerning facilities. Because accelerated courses were offered between terms, less time was available to perform maintenance to classrooms and labs. Some students and faculty membesr reported that on various occasions, classrooms were closed or not prepared when they arrived.

The authors concluded that the accelerated learning format can result in a positive learning experience. However, they caution that considerations must be made with respect to the delivery and organizational issues raised by faculty members and students who participated in the study.

Myers, K. A., & Bastian, J. J. (2010). Understanding communication preferences of college students with visual disabilities. *Journal of College Student Development 51*(3), 265–78.

Over the past 2 decades, postsecondary institutions have seen a dramatic rise in attendance by students with disabilities. Citing a report by the U.S. Department of Education, National Center for Educational Statistics (2006), Myers and Bastian point out that 11% of college students have documented disabilities. Although this increased access to higher education is encouraging, it does not guarantee a positive educational experience for enrollees. Students with disabilities may experience communication barriers and social isolation or be victims of disability stereotyping, which frequently occurs when lack of knowledge about a particular disability leads to negative attitudes (Burgstahler, 2003). A better understanding of the communication styles and preferences of students with disabilities could lessen incidences of disability stereotyping and reduce misunderstandings and breakdowns in communication. In this study, Myers and Bastian focus on communication issues of postsecondary students with visual disabilities—

blindness or low vision.

Using qualitative methodology and a grounded-theory approach, the researchers conducted structured, semistructured, and unstructured interviews with 35 participants who were either totally blind (unable to see) or legally blind (having a visual acuity of 20/200 or poorer or a visual field of less than 20 degrees). Participants invited to participate in the study, current and former enrollees in postsecondary institutions, were identified through referrals from disability services offices and national, state, and local disability advocacy organizations.

Myers and Bastian sought answers to five general research questions:

- What are the communication styles and techniques preferred by persons with visual disabilities when communicating with other people?
- What communication styles and techniques are considered "appropriate" by persons with visual disabilities?
- When is communication deemed inappropriate or detrimental to the person with a visual disability?
- What classroom interactions and interventions by teachers or other students are appropriate for students with visual disabilities?
- What out-of-class interactions and interventions by administrators and university staff are appropriate?

The first observation the authors make is that disability onset may affect communication preferences and behaviors. All 35 participants (100%) made this observation. While respondents who became legally blind later in life struggled with their loss of vision, they felt that previous sight helped them communicate. One participant, for instance, noted a different use of vocabulary by those who have never seen versus those who rely on recollections of visual imagery.

Three themes surfaced repeatedly in the interviews: respect, comfort, and awareness. Participants pointed to mutual respect between those with visual disabilities and teachers, administrators, staff, and fellow students. Participants emphasized that others should treat them as they (those without visual disabilities) would want to be treated. According to the participants, behaviors deemed inappropriate and showing lack of respect include shouting, pulling, grabbing, ignoring, avoiding, displaying impatience, and assuming helplessness, inability, or low intelligence. They also pointed to assumptions that assistance is needed or wanted and articulated generalizations about all persons with visual disabilities and distasteful jokes. They also said that walking away without giving verbal notice, forgetting about necessary accommodations, and petting or distracting their guide dogs were inappropriate behaviors.

As for interactions with and accommodations by faculty members, respondents concurred that it was their own responsibility to communicate their needs and to self-advocate. At the same time, participants indicated wanting to respect instructors' busy schedules. They were cognizant of a need to make their teachers comfortable when communicating with them one-on-one and in the classroom. Respondents indicated that positive rapport with teachers and staff helps promote success in college.

Participants discussed how comfort could be achieved. Generally, respondents took the initiative or made the opening moves for setting a comfortable tone when interacting with individuals who have sight. Many said that they apply humor, often self-directed, to put others at ease. One participant observed that this strategy serves as a "disarming tool." Comfort also results from open, honest inquiries about accommodations. Yet, respondents cautioned that inquiries must be about the accommodations, not the disability itself. Participants observed that others often seemed hesitant to approach them and that assistive aides such as dark glasses, thick lenses, telescopic lenses, and walking canes were sources of discomfort and embarrassment for their sighted interactants. This often puts the responsibility of initiating conversations on the persons with the disability. In one-on-one situations, most participants, particularly those who were legally blind, felt comfortable initiating conversations. By contrast, in group situations, those who were totally blind or legally blind from birth tended not to initiate conversations, and only about one half of those who lost their sight later in life tended to do so.

Awareness was the third dominant theme evident in the interviews. All participants agreed that disability training would be beneficial for enhancing communication between those with disabilities and those without them, and even a little knowledge of the experience of a visual disability, such as could be achieved through simulations, would reduce false assumptions and might make teachers more receptive to providing accommodations. Awareness extended to surroundings and environment. For example, one student remarked on the absence of Braille signage in the classrooms and commented that more information should be posted to the Internet instead of on printed flyers. Others

commented on obstacles such as trash cans in dorm hallways and fellow students' book bags on the aisle floors in classrooms.

Myers and Bastian find that regardless of specific terminology used by participants, interview responses point to incorporating universal instruction design (UID) (Higbee, 2003) into curricula, programs, and services. Consistent with principles of UID, all participants expected a respectful, welcoming, and inclusive environment. Creating such an environment is not the sole responsibility of disability services, but rather should be shared across the institution. Based on the results of the interviews and principles of UID, the authors make a number of recommendations for improving communication with students with visual disabilities.

First, faculty members and other university personnel must be familiar with federal regulations concerning higher education and students with disabilities and should attend disability awareness training. Next, the researchers caution faculty members against forming false assumptions concerning students' intelligence and ability to carry out tasks. As far as accommodations, faculty members, staff, and fellow students should not automatically assume that students with visual disabilities need or desire assistance. Instead, they should ask appropriate questions concerning types of accommodations and assistance needed. Findings in the present study, as well as those found more than 2 decades prior by Tuttle (1984), seem to indicate that instructors are more accommodating of students who are totally blind and less understanding and believing of students who have low vision or who are legally blind. When a student requests an accommodation, instructors should not doubt the need.

Recommended communication strategies include behaviors such as avoiding vague or ambiguous words such as "this" and "that" and "over here" and verbalizing written materials on blackboards and projection screens. With respect to distribution of materials, the authors suggest delivering handouts in alternate formats such as large print, Braille, or audiotape. Text-based materials can be provided online using editable word processing formats that enable students to alter the font size, type, and color. Finally, Myers and Bastian draw the readers' attention back to the themes encountered in the interviews. Showing respect for others, working toward mutual comfort levels during interactions, and demonstrating awareness and sensitivity to others' needs enhance communication.

Nonis, S. A., & Hudson, G. I. (2010). Performance of college students: Impact of study time and study habits. *Journal of Education for Business 85*, 229–38.

The assumption that the less time a student spends studying, the poorer his or her academic performance proves a timely concern for postsecondary educators because research seems to indicate that college students devote increasingly less time to their studies (Higher Education Research Institute, 2003; Nonis, Philhours, & Hudson, 2006). However, the relationship between study time and academic performance is not as straightforward as it might appear. Nonis and Hudson cite two studies (Didia & Hasnat, 1998; Krohn & O'Conner, 2005) in which a negative correlation between study time and academic performance was found, and in a prior study, Nonis and Hudson (2006) concluded that performance is affected not only by how much time is spent studying, but also how the time is spent. To further explore this notion, in the present study, the authors investigate not only study time, but also study habits along with several control variables.

Participants were 163 juniors and seniors majoring in a school of business at a medium-sized public state university in the southern United States. Surveys gathering demographic data along with information about study habits, time allocation, and motivation were administered to this group during a 2-week period in capstone business strategy courses and mandatory junior- and senior-level marketing and finance courses. Additional data—cumulative GPA (CGPA, a long-term outcome measure of performance), semester GPA (SGPA, a short-term measure), ACT composite score, semester load, and accumulated credit hours—were obtained through university records. A comparison of the sample characteristics with national data on public postsecondary institutions from the U.S. Census Bureau Statistical Abstracts of the United States (2007) shows the sample to be similar to the national population in terms of gender distribution and age (median 23 years). However, the number of White students in the sample was higher than the national average (91.0% compared to 77.9%), and the number of students employed in the sample was also higher than the average (67.7% compared to 43.2%).

Nonis and Hudson's first set of hypotheses predicted that study time would relate positively to SGPA (H_{1A}) and CGPA (H_{1B}). While they found a positive relationship between study time and SGPA as well as between study time and CGPA,

the relationships were not significant. Thus, the first two hypotheses were not supported.

A second set of hypotheses predicted a significant relationship between good study habits and semester (H_{2A}) and cumulative GPAs (H_{2B}). Three categories of study habits—scheduling of study time, ability to concentrate, and access to notes—were examined. The first two were assessed with a modified version of a scale developed by Nonis, Relyea, and Hudson (2007). Questions related to scheduling (Cronbach's $\alpha = .81$) included three reverse-coded items: waiting until the last minute to complete homework, waiting until the last minute to prepare for an exam, completing homework or assignments at the last minute, and one additional item—going over the text and lecture notes the same day they were covered. Questions regarding ability to concentrate (Cronbach's $\alpha = .91$) included three reverse coded items: finding it difficult to pay attention in class, thinking of other things in class, and finding it difficult to concentrate in class. A third set of items was developed for the present study to measure access to notes (reliability coefficient = .86). These included taking good notes in class, having access to a good set of notes from which to complete homework or study for an exam, and a negatively coded item, having difficulty making sense of notes that were taken in class.

H_{2A} was only partially confirmed. The researchers found a significant positive relationship between ability to concentrate and semester GPA. However, contrary to expectations, scheduling showed a significant but negative relationship with SGPA. The relationship between access to good notes was not significant. As was the case for H_{2A}, the relationship between SGPA and study habits was only partially substantiated. As with SGPA, ability to concentrate was significantly and positively related to CGPA. However, neither scheduling nor access to a good set of notes were significantly related to CGPA.

The third set of hypotheses related to interactional effects between study time and good study habits. H_{3A} predicted that study habits would moderate the relationship between study time and short-term performance (SGPA). Specifically, the authors hypothesized that study time would be more influential on SGPA for students who used good study habits more often than those who used them less often. The final hypothesis, H_{3b} was identical to H_{3A} except that it made predictions for CGPA instead of for SGPA. With regard to SGPA, none of the interactions between study skills and study time were significant at $p < .05$, although interaction between ability to concentrate and study time would have been significant at the $p < .10$ level. H_{3A}, therefore, was not supported.

H_{3B}, was partially supported with a significant interaction between time spent studying and one study habit set—concentration. That is, CGPA was higher among students who spent more time studying and were able to concentrate than it was among students who spent less time studying and were less able to concentrate. The authors also found a significant interactional effect between time spent studying and having access to good notes, but the relationship was negative, contrary to expectations. In other words, CGPA was higher for students who spent less time studying and reported having limited access to good notes than it was for students who spent more time studying and had more access to good notes. They found no interaction between scheduling time for studying and amount of time studied.

The researchers also considered the effects of various control variables. They found that both ACT composite score and motivation (as measured with six items from Spence, Helmreich, & Pred's, 1987 scale) showed a significant, positive relationship with both SGPA and CGPA. By contrast, Nonis and Hudson found significant negative relationships among time at work and SGPAs and CGPAs. A significant effect for age (negative) was also found for cumulative GPA. No other effects were found for the remaining control variables (race, gender, or course load).

In summary, results indicate that the relationship between study time and academic achievement is more than merely a matter of quantity, but also one of quality, which may explain conflicting results obtained in prior studies of the relationship between time studying and academic performance. Study habits, particularly ability to concentrate, interact with study time, affecting both immediate- and long-term academic progress. The negative relationship between time spent at work and GPA also suggests that how students allocate their time when not studying may impact academic performance. The authors suggest repeating the study with a broader student population, looking more in-depth into how students allocate their time and assessing other outcome variables in addition to the performance measure of GPA.

Steffes, E. M., & Burgee, L. E. (2009). Social ties and online word of mouth. *Internet Research 19*(1), 42–59.

When deciding which courses to take, students

often solicit the opinions of their peers who have had prior experience with the courses. Students typically want to know "what the teacher (or professor) is like." With access to Internet sources such as RateMyProfessors.com (RMP), pickaprof.com, rateaprof.com, campushopper.com, and student.dude.com, students need no longer depend solely on the views of their acquaintances to find out about a given professor. In fact, at the time of Steffes and Burgee's study, RMP had accumulated more than 6.8 million student-generated ratings of over 1,000,000 professors from 6,000 schools in Canada, England, Scotland, and the United States. Despite RMP's apparent popularity, postings to the *Chronicle of Higher Education Forums* indicate that many faculty members doubt that students take web ratings of professors seriously or use them as reliable sources of information rather than simply sources of amusement.

Using a survey research design, with both open-ended and Likert-type questions, administered with a sample of 482 students enrolled in either principles of marketing or principles of e-business at a 4-year university, Steffes and Burgee investigated the factors influencing students' course selection and the sources of information college students use, including RMP, to select courses and professors. Results suggest that many faculty members may underestimate the power of new electronic forms of word of mouth (WOM) communication such as RMP.

WOM, defined by the authors as "all informal communications directed at other consumers about the ownership, usage or characteristics of particular goods or their sellers" (p. 42) often more greatly influences consumer behavior than other forms of advertising. One newer form of WOM communication is that posted to the World Wide Web. Electronic WOM (EWOM) communication differs from traditional WOM communication in that it tends to be asynchronous. That is, the sender and receiver are separated by both space and time. Traditional WOM interactions generally involve sharing of information between just a few communicators while EWOM can reach an unlimited number of participants. More important for the present study, with EWOM, senders and receivers often do not know each other and, therefore, the receiver's ability to judge the credibility of the sender and the corresponding message is more limited.

Apart from the general question of whether students consider sites like RPM a form of entertainment or a genuine source of information, Steffes and Burgee were interested in assessing how the strength of the social tie or "level of intensity of the social relationship" (p. 52) between the sender and receiver affects the use of WOM information sources. Specifically, the authors hypothesized that sources of information from strong ties, such as oneself and friends, would be used as a primary source of information more than sources generated by senders with whom students had weaker ties such as academic advisors, who at the institution under study were faculty advisors, or from sources generated by persons with whom the students had no ties such as other users of RMP (*H1a*). In a second hypothesis, *H1b*, they suggested that information from strong-tie referral sources would be perceived as more influential in the decision-making process than that obtained from weak-tie or nonexistent-tie information sources.

Steffes and Burgee further hypothesized that the degree of similarity in age, gender, education level, and social status between the sender and receiver, a relativistic construct they term *homophily*, would also influence preferences for and use of information sources. They expected that information from homophilous sources, such as that from friends and fellow users of RMP, likely would be preferred or used as a primary information source more than that from a heterophilous source such as a faculty advisor (*H2a*) and that information from homophilous sources would be more influential in the decision-making process (*H2b*).

Results suggest that contrary to popular faculty beliefs, students appear to use RMP as a source of information. Nearly 94% of the respondents indicated that they had used RMP to select a professor and nearly 97% indicated an awareness of the web site. However, a much lower number, 35.8%, reported that they had rated a professor on the site. The reported mean number of professors rated by the participants was 1.5.

Based on prior information gathered from focus groups with students, Steffes and Burgee identified two distinct decisions students make when registering for classes—selecting a course and selecting a professor. To ascertain factors pertaining to the first decision, selection of courses, the authors asked students to rate the level of importance, with 5 = *very important* and 1 = *very unimportant*, of various factors in the selection of courses. Necessity for degree plan received a mean score of 4.66, followed by time of day at 4.28, day of week at 4.17, preferred professor teaches the course at 4.03, and lastly, advisor recommendation at 3.32. In a separate question, students were asked to rank these factors in order of importance. Although 50% of

the respondents ranked necessity for degree as the most important factor, nearly 25% ranked availability of a certain professor as the most important factor. Time of day, ranked as most important by 13% and day of week by 11%, were evaluated as less important. These results imply, in the authors' view, that students are willing to take a course at a less desirable day or time if it means being able to take a course with a more desirable professor.

Whereas degree requirements somewhat constrain the selection of courses, choice of professor is generally more flexible. Students may perceive the choice of professor to be high risk, and therefore, the researchers posit, students are likely to perform an extended search consulting various information sources, an ideal situation in which to study social ties and WOM behaviors. To ascertain how participants select courses, using the same Likert scale from 5 to 1 (*very important* to *very unimportant*), the researchers asked students to rank various factors affecting their choice of professor, including talking with friends in person or via telephone or e-mail; professor teaches in the preferred time slot; academic (faculty) advisor recommendation; RMP; previous class with the instructor (counted as personal experience); and no choice of instructor available for a given course. Following *H1a*, the authors had predicted that personal experience (closest social tie) would be the most important factor in instructor selection, followed by talking with friends, followed by academic advisor recommendation (weak social tie), followed by RMP (nonexistent tie). *H1a* was not supported. Although personal experience turned out to be the most important source of information, RMP, or source with a nonexistent tie, was second in importance, not last. Talking with friends followed in importance and the recommendations of an academic (faculty) advisor were the least important sources of information.

Respondents were then asked to indicate which of the six factors was the single most important in choosing a professor. RMP was elected the most important factor by 41% of the respondents. Talking with friends was ranked the most important factor by only 17% of the participants, and personal experience was ranked first by 15% of the participants. Only 3% of the respondents indicated advisor recommendations as the most important factor. Thus, *H1b* was not supported because the source provided by persons with whom the participants had no social ties was ranked more than twice as important as other sources with whom the respondents had social ties.

As for homophily, the authors used *H2a* to predict that participants would depend more on information provided in RMP and from friends than on faculty advisors because the level of homophily between participants and their friends and between participants and RMP users is greater than between participants and faculty. Results supported *H2a*. Likewise, *H2b*, through which authors predicted that homophilic sources would be rated of higher importance than heterophilic sources, was also supported by the data. The authors concluded that students are relying heavily on EWOM through RMP in their decision-making processes and that these types of sites are not merely sources of entertainment. Because social networking and EWOM sites are gaining in popularity, the authors call for more research into the use of EWOM.

Swerdzewski, P. J., Harmes, C. J., & Finney, S. J. (2009). Skipping the test: Using empirical evidence to inform policy related to students who avoid taking low-stakes assessment in college. *Journal of General Education 58*(3), 167–95.

With increased focus on accountability, institutions of higher education are giving more attention to assessment. For institutional and programmatic assessments to be valid, students must show up to complete the assessments and they must take the assessments seriously, conditions which may not be met when students face no consequences for failing to participate (i.e., when the stakes are low). Many postsecondary institutions rely on data obtained with these instruments and measures to make decisions about resource allocation and to demonstrate accountability. In other words, low-stakes tests for individual students are often high-stakes tests for the institution. While previous research on low-stakes testing from the student's perspective generally has focused on the effort of those students who participate (*attenders*), in the present study, Swerdzewski, Harmes, and Finney examine nonparticipation or test avoidance as well. Specifically, they considered the following set of research questions (p. 169):

- What percentage of students did not attend a low-stakes testing session (avoiders), who are these avoiders, and do their cognitive and developmental profiles differ from the students who did attend?
- What percentage of attenders and avoiders put forth effort during the low-stakes testing, and to what degree does this effort contribute to score differences between the two groups?

- What are the characteristics of those avoiders who did not exhibit effort during the required make-up sessions?

The study was carried out at a medium-sized mid-Atlantic university where students are required to participate in one or more *assessment days* (p. 169) during their time at the institution. Assessments are high stakes for the university and its programs. On assessment days, all classes are cancelled and university offices are not allowed to offer any competing programs on those days. For students, however, the exams are low stakes as individual scores are not reported and students do not need to meet any minimum scores on the assessments. Data for the present study were collected during a spring semester assessment day in which all students who had earned between 45 and 70 credit hours (n = 2,965) were required to attend a either a morning or afternoon (randomly assigned) 3-hour testing session related to general education course work and various developmental measures. Assessments consisted of eight tests. Two, the Fine Arts Test and the Understanding Our World Test, were considered cognitive tests, intended to measure the fine arts and humanities and the quantitative and scientific reasoning components of the institution's general education program. The other six tests, referred to as developmental tests, assessed students' psychological development and attitudes including a) academic motivation and sense of belonging, b) beliefs about learning related to the collegiate environment, c) social self-efficacy, d), worry, e) openness to diversity, and f) test-taking motivation. Questions used in these scales along with their maximum point values are provided in the appendix.

Assessment days are well publicized with multiple means of contact and advertising, including personal letters and e-mail, flyers, full-page newspaper advertisements, and postings to the university and assessment center web sites. Holds are placed on nonattendees' records preventing them from registering for classes until make-up assessments are completed.

Of the 2,965 originally scheduled to take the assessments, 753 or approximately 25% chose not to attend. The remaining students completed the assessments via paper and pencil or computer. Those randomly assigned to computer-based testing (CBT) formed the attenders group for the study. The authors opted to include only those who took the assessments in the CBT condition in the attenders group (n = 326) so that they could measure how much time students spent on each question, an indicator of motivation and effort. After discounting assessments with incomplete student data and those with invalid results due to technical malfunction, the final sample size for the attenders group was 303. Of the avoiders, 621 completed the make-up assessments within 3 months of the original assessment day. All make-ups were completed using computerized assessments. Again, assessments with incomplete or unusable data were removed leaving a sample size of 488 avoiders. In addition to the eight assessments described above, during the make-up session, avoiders were asked to complete a questionnaire eliciting their value judgments of the assessments and to answer several questions concerning their reasons for not attending the original assessment day.

The first research question related to percentages and profiles of attenders versus avoiders. As indicated above, approximately 25% of the students required to take the assessments did not complete them on the originally scheduled date. A comparison of the demographic profile of the two groups showed significant differences with respect to GPA, earned credit hours, and age. The avoiders had a lower mean GPA (2.80 compared to 3.02), had earned on average 2.17 more credit hours than the attenders, and were slightly older (mean age of 20.42 compared to 20.06 years). The avoiders had a slightly lower composite SAT score, but the differences between the two groups were not significant. While the ratio of male avoiders was higher in the avoider group, differences in gender distributions between the two groups were insignificant. Attenders scored significantly higher on both the fine arts and the understanding our world tests than the avoiders.

Effort might account for differences in test scores between the two groups. The second research question explored this possibility. On a self-report survey, the attenders exerted significantly more effort on the tests (mean 3.16) than the avoiders (2.84), and they attributed more importance to the tests (mean 2.70 compared to 2.50).

Response time was used as a second indicator of effort. Questions on the assessments were revealed to students one at a time. A minimum threshold time for reading and responding was estimated for each test item. Response time effort (RTE) indices were then calculated for each examinee for each assessment. Students who spent enough time (i.e., met the minimum time threshold) for at least 90% of the items (RTE of .90 or higher) were considered to have put forth an effort on the assessment. Those

who had an RTE of .90 for all eight assessments were classified as *total triers*. Of the attenders, or students who attended the assessment on the original assessment day, 47.19 % were total triers, whereas only 12.70 of the avoiders had an RTE of .90 or higher for all assessments. Paralleling the differences between the overall attender and avoider groups, among the total triers, avoiders were older, had earned more credits, and had lower GPAs. However, in contrast to results obtained for the two general groups, the avoiders who were total triers scored significantly better than the attenders who were total triers on the understanding our world assessment; however, no significant differences in scores between the two groups of total triers were found for the fine arts test.

Along developmental domains, effort turns out to be a key variable in some respects, but not important in others. For instance, when entire groups of attenders and avoiders were compared to each other, attenders had a significantly higher mean score indicating a mastery approach to learning. A mastery approach to learning is associated with deeper learning strategies, persistence in the face of difficulties, acceptance of more challenging tasks, and positive attitudes toward learning. By contrast, when only total triers (those who put forth effort) in the two groups were compared, differences between the attender and avoider groups ceased to be significant. In fact, avoiders who were total triers had a higher mean for mastery goal orientation than their attender counterparts who were total triers. Avoiders who were total triers also had a significantly higher mean than attender triers on mastery avoidance, which is the goal of not losing skills that are mastered. At the same time, however, overall attenders had a higher mean score for performance approach (the goal of demonstrating competence when compared to others) both as a whole group and when just total triers were examined. Whether considered as a whole group or as a subgroup of total triers, test avoiders had higher mean work avoidance scores than their attender counterparts. Results from other developmental scales are presented in tables but not discussed in length. The authors find that generally, when effort is controlled, differences between avoiders and attenders tend to be less than when they did not account for effort.

The final research question concerned the characteristics of avoider students who did not demonstrate effort when completing the make-up assessments. To answer this question, Swerdzewski et al. compared two groups of avoiders: total triers (n = 53) with a group of cognitive nontriers (n = 266) with the latter defined as those who did not try on the two cognitive tests—the fine arts test and the understanding our world test. With regard to basic demographic variables, the only significant difference between the two groups of avoiders was that of composite SAT score. Among the avoiders, the total triers had a mean combined SAT score of nearly 1,176, whereas the avoiders who did not put forth effort on the cognitive assessments has a lower SAT mean of 1,152. GPAs for both groups, nevertheless, were identical at 2.80. Differences in age and in gender distributions turned out to be insignificant.

When examining the developmental profiles of the two groups of avoiders, total triers and nontriers, the researchers only considered results for nontriers who put forth effort on each of the developmental assessments. For example, of the 266 avoider nontriers who completed make-up assessments, only 122 put forth the minimum .90 RTE on the assessment measuring attitudes toward learning. On this assessment, results for the other 144 nontriers were not counted. Fewer, 103, reached the effort threshold for the Learning Environment Questionnaire. On this scale, only the results of the 103 students who made an effort were used for comparison with the 53 total triers.

With respect to mastery approach and mastery avoidance goals, the total triers' means were significantly higher than for the other group, and the cognitive nontriers had a significantly higher mean for work avoidance than did the avoiders who were total triers. Among the avoiders, total triers exhibited significantly higher means for academic autonomy, feelings of academic competence, interest in academics, enjoyment in academics, and with regard to intrinsic motivation for learning. They had significantly lower means for extrinsic motivation, external regulation, and amotivation (i.e., feeling uncertain about reasons for attending college). Total triers also reported spending more effort on the assessments and attributing more importance to them.

As far as results on the two cognitive tests, total triers scored, on average 16 percentage points higher on the fine arts test than avoiders who put forth effort on at least 90% of the questions on the cognitive tests and more than 30 percentage points higher on the understanding our world test. These differences were significant.

Based on the findings, the authors make several recommendations. First, to ensure a repre-

sentative sample and the ability to generalize to the university population, test avoiders must be included in assessment results (via make-up tests) because test avoiders differ from test attenders along some demograpic, cognitive, and developmental dimensions.

A second recommendation is to employ motivation filtering techniques. Students who did not put forth efforts on low-stakes institutional assessments tend to produce data that does not necessarily represent their true academic ability. In the words of the authors, these students introduce "variance, or 'noise' in the test scores that is unrelated to the skill or content area being measured by the assessment" (p. 188). One nonintrusive filtering techique is to remove the invalid exams taken by students who showed no effort without letting them know that their assessments have been removed. Assessment practitioners should not assume that avoiders are a low-performing group because data showed that some avoiders who put forth an effort actually outperformed original attenders.

Third, Swerdzewski et al. recommend targeted programming for test-avoidant students by stressing the uses and importance of assessment results and increasing the relevance of low-stakes tests for students. Differences in motivational profiles of test takers and test avoiders suggest that alternative approaches to marketing and advertising for these two groups may be needed.

The authors make the recommendation to raise the stakes of the tests with some reservations. For example, the stakes may be raised by including scores on transcripts or requiring students to retake the tests if they exert low effort. However, if this measure is taken, greater care in test development and security would be needed, and the construct of test anxiety would need to be considered.

The bibliography is compiled by Jessie Carduner and Barbara Miller.