Inserting “Skill Bites” into Your Course to Enhance Discipline Specific Development

Nancy Harris, Computer Science

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The James Madison University Student: Before, During, and After Enrollment 1993 to the Present

The Office of Institutional Research (OIR) at James Madison University (JMU) has recently concluded a series of studies to learn ways in which JMU's students have changed since the early 1990s. The first study explored changes in JMU students prior to their enrollment. The second study examined the changes in students after they enrolled and before they graduated. The third study reviewed what is known from alumni surveys about our graduates. The purpose of this paper is to summarize the findings of these three studies.

OIR undertook these historical studies to shed light on changes that usually occur over a period of years. Annual changes are normally small, but changes when viewed from a vantage of 10 to 15 years, can be significant. A variety of information sources were used. Data from official reports (enrollment census files, graduation files, etc.) were used as well as annual surveys (*First Year Survey* (formerly the *Freshman Survey)*, *Continuing Student Survey, and Alumni Survey*).

Prospective Students

This study examined changes in student demographics and expectations prior to their enrollment. The major sources for this study were the admissions data files sent to the State Council of Higher Education for Virginia (SCHEV) and the annual *First Year Survey* taken by students prior to their enrollment. Below are the major findings, with updates through Fall 2006**.**

- The number of applied, accepted and enrolled first-time freshmen increased significantly from Fall 1993 to Fall 2006. Applications increased 58 percent, accepted freshmen increased 111 percent and enrolled freshmen increased 88 percent. Overall, the freshman class grew from 2,082 to 3,748.
- JMU's acceptance rate increased from 47 percent in Fall 1993 to 68 percent in Fall 2005.
- Between Fall 1995 and Fall 2006, JMU's average SAT combined decreased slightly from 1,186 to 1,140.
- The percentage who reported in the *First Year Survey* that their average grade in high school was in the 'A' range increased from 43 percent to 55 percent. This positive indicator was associated with the increase of freshman women. Within specific skills, students reported increased preparation in study habits, computer skills and vocational skills. There was also a decline in the percentage that stated they were very well prepared students in mathematics and a slight decline in foreign languages preparedness.
- Virginia Tech remains the in-state school that respondents are most likely to report that they applied to and were admitted to. Out of state schools most likely applied to are the University of Delaware, Pennsylvania State University and the University of Maryland at College Park.
- Application trends indicate that male interest in JMU has increased in a similar way to female interest. However, acceptance rates for women increased 30 points over the past 13 years while the rates for men increased slightly after six years of decline that began in Fall 1996.
- The increase in the percentage of women in the freshman class was associated with trends in the *First Year Survey* questions that vary by gender. For example, analysis of the annual survey has found that men are more likely to adopt a vocational philosophy of education and this historical study found that the percentage of students that selected this philosophy declined over the past ten years. On the other hand, women tend to hold a social philosophy of education and the percentage that selected this philosophy increased over time.
- There has been a slight decline in the percentage of non-white students over the past 13 years. African-American freshman enrollment dropped from 167 in Fall 1993 to 61 in Fall 2004, but has increased to 184 by Fall 2006. Overall, non-white enrollment decreased, from 14 percent in Fall 1993 to 11 percent in Fall 2006.
- The geographic representation of freshmen was basically steady from Fall 1993 to Fall 2006. The 13-year average enrollment for out-of-state freshmen was 34 percent. This percentage varied from 30 percent to 38 percent without a trend over the 13-year period. Within Virginia, 45 percent of the in-state freshmen have come from the Northern Virginia region.

Current Students

This study examines the changes in student demographics (majors, enrollment, etc.) and attitudes over this period. This study does not examine individual changes, but aggregate change over the years. The major sources for this study were the headcount data files sent to SCHEV and the annual *Continuing Student Survey* taken by students in classes during the Fall term. Below are the major findings with updates through Fall 2006**.**

- Total on-campus enrollment grew 53 percent, from 11,343 in Fall 1992 to 17,393 in Fall 2006.
    - Undergraduate degree-seeking enrollment grew 60 percent, from 9,787 to 15,653.
    - The undergraduate portion of total enrollment grew from 86 percent to 90 percent.
    - Graduate degree-seeking enrollment decreased from 866 in Fall 1992 to 733 in Fall 2000. Enrollment has since increased to 1,138 in Fall 2006. The overall increase was 31 percent.
    - The graduate degree-seeking and non-degree-seeking portion of total enrollment declined from 10 to 8 percent.
    - Non-degree-seeking student enrollment varied without trend from 690 to 584, with a high of 888 in Fall 1998.
    - The non-degree-seeking portion of total enrollment varied between 3 and 6 percent.
- For undergraduate students, the following major changes and trends were found:
    - JMU maintained both a highly selective reputation and high graduation rate. By gender and race/ethnicity, graduation rates were better than national figures for selective institutions.
    - Gender diversity decreased. Female enrollment increased almost twice as much as male. The female portion of undergraduates grew from 55 percent to 61 percent.
    - Racial/ethnic diversity decreased. Asian/Pacific Islanders, Hispanics and Nonresident Aliens grew. African-Americans declined through Fall 2004, and American Indian/Alaska Natives continued in small numbers.
    - Out-of-state undergraduate enrollment grew from 25 percent to 29 percent.
    - Full-time undergraduate enrollment grew from 96 percent to 97 percent – highest among college and universities in the United States with enrollments over 15,000.
    - Baccalaureate degrees conferred grew 60 percent, from 2,187 to 3,501 in 2005-06.
    - One-year retention and six-year graduation rates dipped slightly over the period, then returned to 92 percent and 80 percent, respectively. African-American graduation rates increased from 55 percent for the Fall 1992 cohort to 73 percent for the Fall 1999 cohort, reducing the dropout rate by more than one-third.
    - Most popular majors remain somewhat constant: psychology, biology, interdisciplinary liberal studies and media arts and design (formerly mass communications).
    - Students remain middle class as indicated by their responses to questions regarding family income, parents' formal education and personal achievements, philosophies and values.
- For graduate students, degree-seeking and not, the following major changes and trends were found:
    - Out-of-state graduate enrollment grew from 15 percent to 25 percent.
    - Gender diversity varied without trend between 61 and 69 percent female.
    - Racial/ethnic diversity increased. Although the number of minorities was small, they increased from 8 percent to 12 percent of graduate student enrollment. African-Americans were the largest minority group with 39 students in Fall 2006.
    - Full-time graduate enrollment grew from 40 percent to 56 percent.
    - Average credit hours taken per semester by full-time graduate students increased slightly from 10.49 to 10.92.
    - Graduate degrees conferred (Master's, Educational Specialist and Doctoral) grew 78 percent, from 295 to 526.
- Changes and trends in student attitudes from the *Continuing Student Survey* were:
    - JMU student characteristics and attitudes toward the university remain remarkably positive, and in many instances, have improved. For example, the percentage of students that express high levels of satisfaction with JMU in general has remained at 94 percent since 1990.

Alumni

This study examined what has been learned about alumni within two years of their graduation. The major data sources for this study have been the alumni studies conducted by the Center for Assessment and Research Studies (CARS), Academic Advising and Career Development (AACD) and OIR. Below are the major findings.

- Nearly all JMU alumni report being satisfied with their JMU experience. This trend has been consistently high from 1996 to 2006.
- Nearly all alumni respondents are likely to recommend JMU to a colleague, friend or relative.
- The majority of alumni are satisfied with the cost of their JMU undergraduate education.
- Alumni have been consistently satisfied with campus life, intellectual and cultural environment/extra-curricular activities.
- New graduates are successful in finding employment, and the longer they are out of school the better the employment opportunities reported.
    - On average, 70 percent of alumni who graduated within the last year are employed.
    - Ninety percent of alumni who are two to five years from graduation are employed.
    - On average, 61 percent of new graduates are employed in-state. Fifty-four percent of alumni who are two to five years from graduation are employed in-state.
- In general, the longer the timeframe since alumni completed their undergraduate degree, the more likely they are to have taken graduate coursework.
    - Forty-four percent of alumni who are five years from graduation are taking or have taken graduate-level courses; whereas about 28 percent who are two-years from graduation and 18 percent who are up to one-year from graduation have done so.
    - There is an increase of 7 percent of alumni from 2004 to 2005, who are up to 60 days from graduation, who have taken graduate coursework.
- There exists a consistently high rating for the JMU undergraduate major helping performance in the workplace.
- JMU alumni believe that JMU prepared them academically to attend graduate school.
- There has been an increase in the ways that alumni plan to keep (or have kept) in touch with JMU.
    - In 2002, at least 50 percent of alumni favored the JMU website and visits to campus.
    - The 2005 alumni favored the JMU website, homecoming, visits to campus, alumni association website, email or phone to former faculty or staff, the alumni association at JMU, and the college website as ways to keep in touch with JMU. This may indicate changes going on internally to JMU to increase outreach.
    - Overall JMU alumni, regardless of how long they have been away from JMU, report that networking and internet resources helped them find professional employment.
- General Education (GenEd) at JMU has had a positive influence on JMU alumni in many ways.
    - Ratings are consistently high to moderate in assessing for the influence of GenEd on alumni in the following areas: communication skills, information literacy, critical thinking skills, development of awareness of both physical and emotional wellness, problem-solving skills in science and mathematics, and understanding the development of western civilization and its interaction with other traditions within the global community.

National Survey of First-Year Curricular Practices
Summary of Findings

by Betsy O. Barefoot, EdD

The National Survey of First-Year Curricular Practices was conducted in October of 2000 by the Policy Center on the First Year of College, supported by The Pew Charitable Trusts. This survey instrument was one component of a larger survey initiative to investigate both curricular and co-curricular practices in the first year at American colleges and universities.

This is the first and only descriptive research study in American higher education that aims to look broadly at the first year. Its findings describe common policy and practice and may be useful for institutions that wish to compare their first year to the first year at other similar colleges and universities. But the findings do not necessarily identify "best practice." The survey included an open-ended question that asks respondents themselves to describe "exemplary" or "best-practice" programs at their institutions. Although a number of interesting programs were identified, additional research must be conducted to determine whether these programs actually meet high standards of impact and effectiveness.

Survey Procedures

A Web link to the survey instrument was imbedded in an e-mail message sent to 621 randomly selected chief academic officers. The message was successfully received by 586 individuals, and responses were received from 323 for an overall response rate of 54%. For more information about the sample go to
www.brevard.edu/fyc/survey/currentpractices/index.htm
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Data were analyzed for two-year vs. four-year institutions, by size, and by Carnegie classification, but generally the factor that was most likely to differentiate findings was Carnegie classification, which, of course, generally correlates with size.

Some responses to the survey were consistent across institutional types, and some supported commonly held views or anecdotal evidence about first-year academic programs, structures, and policies. But others were in stark contrast to "common wisdom" or differed dramatically depending on two-year/four-year status and/or Carnegie classification. Following is a brief summary of selected findings that includes both general information on selected questions, in addition to information that is categorized by institutional type. For the complete report on all 28 survey questions, go to
www.brevard.edu/fyc/survey/currentpractices/curricular.htm

Selected Findings

Teaching and Class Size

Overall, with respect to both teaching and size of first-year classes, the survey found both anticipated and unanticipated differences depending primarily on an institution's mission, size, and student body—characteristics that are most clearly discriminated by Carnegie classification. For example, it is not surprising to find that students who enroll at a small liberal arts institution, a community college, or a small masters-level institution are likely to experience classes in every discipline limited to no more than 25 students and taught by senior faculty. Even at large research universities, the overwhelming majority of respondents report that English sections are limited to 25, and math sections, to 50 students. But first-year students at large universities are also likely to experience one or more very large classes (> 100 students), especially in the sciences and social sciences. In addition, the responsibility for first-year teaching in the research university is shared by a broader range of "instructor types," including graduate students.

In spite of a body of research evidence attesting to the positive influence of upper-level students on the cognitive development of first-year students, the use of upper-level undergraduates in co-teaching roles is very infrequent across all first-year classes. When "peer teachers" are utilized, it is most likely to happen in first-year seminars.

Special First-Year Programs/Interventions

With reference to special first-year programs or interventions, one surprising survey finding was that research universities—the sector that so often bears the brunt of criticism for inadequate attention to the first year—is the sector offering the largest variety of special first-year programs and structural interventions. This survey finds that research university campuses appear to be working harder with more intentionality (and perhaps more resources) to do what the small institutions take for granted—creating an atmosphere characterized by manageable size and close connections between students and faculty. These programs include first-year seminars, learning communities, first-year courses in residence halls, service learning, and supplemental instruction.

Developmental Education

Another surprising set of findings relates to remedial/developmental education. In a nutshell, some level of developmental education exists in every sector of American higher education. Not only are two-year campuses offering developmental courses, selective baccalaureate colleges and research universities offer them as well, albeit to a smaller percentage of students. But in spite of the prevalence of developmental education in the four-year sector, it is disappointing to note that less than half of these institutions reportedly know anything about

the impact of developmental education on student readiness for the regular curriculum.

Institutional Policies - Attendance & Mid-Term Grade Reporting

Although research finds that class attendance is a strong predictor of student success, less than 40% of institutions have an official undergraduate attendance policy, and less than 5% have any sort of special attendance policy for first-year students. Although the majority of campuses seem unwilling to mandate a behavior that correlates with success (attendance), over 60% of them do collect and report mid-term grades, thereby giving first-year students an important source of early feedback on their academic performance. A few institutions (slightly less than 10% overall) even find a way around privacy laws and report these mid-term grades to parents.

Academic Advising & Major Selection

The survey finds that every advising structure is represented within each Carnegie institutional type. Predictably, centralized advising systems and professional advisors are more likely to be found in large universities. Overall, however, faculty still perform the largest proportion of academic advising. Although technology is almost sure to impact the way advising is conducted in the future, face-to-face advisor/advisee contact is currently mandated by about ¾ of institutions, whether the advisor is a faculty member or an advising professional.

Slightly over 50% of institutions overall take a laissez-faire position with respect to major selection: Students may choose a major in the first year, but they are neither required nor strongly encouraged to do so.

Faculty Focus on the First Year

Almost ¾ of institutions report a recent faculty development initiative focused on the first year, and just over half report recent institutional efforts to increase the amount of out-of class contact between faculty and first-year students.

Selected Findings by Carnegie Classification

Two-year (AA) institutions. Two-year institutions are equally as likely to use senior faculty in first-year teaching as selective liberal arts with some differences by discipline. These institutions almost never use upper-level students as peer teachers (many interpreted our use of the term "upper-level student" to be a junior or senior). Class sizes are almost comparable to those of small liberal-arts colleges with some slight disciplinary differences. Only ¼ of these institutions have any required common first-year course or courses. Virtually all (98.3%) responding two-year institutions offer remedial courses, and approximately 1/3 have student populations that are comprised of over 50%

remedial students. Two-year institutions are more likely than other institutional types to evaluate the impact of remedial courses on regular courses in the disciplines. Two-year campuses are more likely than four-year campuses to have an institution-wide attendance policy, but are less likely to collect/report mid-term grades.

Some of the most striking differences between two- and four-year institutions relate to the offering of special first-year programs and services. In spite of the fact that, as a whole, two-year institutions enroll more at-risk students than do four-year campuses, they are much less likely to offer first-year seminars, learning communities, service learning, and supplemental instruction. They are more likely to offer distance education or on-line courses for first-year students, and over 50% have in place an early-alert system that identifies students in academic difficulty.

About 60% of two-year campuses either "strongly encourage" or "require" first-year students to select an academic major, and academic advising is far more likely to be centralized, but provided by faculty (some of whom may have faculty status as "counselors.") Two-year institutions as compared to four-year institutions are far less likely to require that each student have face-to-face contact with an academic advisor and are also less likely to engage in efforts to increase out-of-class interaction between students and faculty.

Baccalaureate institutions [both Baccalaureate-Liberal Arts (BC-LA) and Baccalaureate-General (BC-Gen)]. These institutions are more likely than any other institutional type to offer small first-year classes, and those classes, across the board, are likely to be taught by senior faculty. These institutions are also more apt to offer a course or courses required of all first-year students. As a group, they are least likely to offer on-line instruction, courses in residence halls, distance learning options, and learning communities. BC-LA institutions generally either disallow major selection in the first year or allow, but do not encourage, major selection. Academic advising in this sector is almost totally the responsibility of faculty rather than professional advisors, and face-to-face contact with an advisor is almost always required prior to registration.

Baccalaureate-general institutions are most likely to require all students to participate in an introduction to campus computing. Baccalaureate-liberal arts colleges are most likely to report that teaching or advising first-year students has a positive effort on the likelihood of tenure and promotion.

Masters institutions. In general, the response pattern for masters institutions is most like the response pattern from baccalaureate colleges, especially those in the less selective baccalaureate-general category. This is not surprising: Many small, residential colleges and universities with a primary liberal arts mission offer a few masters degrees and are therefore classified in the Carnegie system as master's institutions. This category, however, also includes regional comprehensive colleges and universities, many of which have large

populations of commuting students. With respect to special first-year programs, such as learning communities, service learning, supplemental instruction and the use of early alert systems, masters institutions are most similar to research intensive universities. Overall this institutional category is "in the middle" rarely being particularly high or low on any response category.

Research universities. The research university category, comprised of both research intensive and research extensive institutions, often represents some of the most strikingly different responses to the survey. Institutional size, whether large or small, does influence structure, policy, and programs, and the research universities' approach to the first year is often because of or as an antidote to their large size. In these institutions, overall responsibility for the first-year curriculum tends to be assigned at the dean level—either dean of a general or university college or an academic college rather than at the "Chief Academic Officer level," which is the most common response for other institutional types. Not surprisingly, the largest first-year classes can be found in the research university, specifically in the disciplines of psychology and biology. Faculty teaching responsibilities are also more evenly divided between the various instructor categories including graduate students who provide a significant portion of instruction, especially in English and math.

Research universities are less likely than baccalaureate and masters institutions to require that first-year students take one or more courses in common, but are more likely to implement this requirement than are two-year institutions. Remediation is quite common in the research intensive sector (80% of respondents); somewhat less common in the research extensive institutions (63.6%). As a group, less than 30% of these universities have an undergraduate attendance policy; virtually none of them have a special first-year attendance policy. Mid-term grades are generally collected and reported, most often to students, academic advisors, and coaches.

The percentage of these large institutions offering programs designed to "make the large university seem small" and create a greater sense of community is striking. This sector is more likely to offer first-year seminars, courses in residence halls, learning communities, and supplemental instruction than are other sectors of American higher education.
These institutions generally either permit students to select a major or strongly encourage them to do so. But few have policies that either disallow or require major selection in the first year.

The structure of academic advising in the research universities is mixed, but these institutions are significantly more likely to offer at least some centralized advising than are baccalaureate colleges. Advising itself is far more likely to be done by professional advisors than at baccalaureate institutions. Although research institutions are less likely than baccalaureates or masters institutions to require face-to-face advisor/advisee contact, a significant number (> 50%) do require this interaction.

Research universities are most likely to report that teaching/advising first-year students has either no effect or "an effect that varies by department" on tenure and promotion decisions.

Conclusion

What matters in the first year? Are certain structures, systems, policies, and programs better than others, and where do we turn for guidance on these most important questions? Whereas some aspects of curriculum design and implementation may affect student retention and academic growth differently or not at all, other curricular policies and practices matter a great deal. To answer the "what matters" question, educators often turn to the retention literature for guidance, and many of the questions on the survey are directly linked to the factors that predict student retention. However, we would also like to emphasize what we believe is a strong link between a number of these findings and the often-cited "Seven Principles for Good Practice in Undergraduate Education" (Chickering & Gamson, 1987). We would argue that "what's good for undergraduates" with respect to the quality of their educational experience—including, but not limited to retention—is essential for first-year students. Of the seven principles, the first six are particular relevant to this research. They are as follows:

1. Encourages Contact between Students and Faculty
2. Develops Reciprocity and Cooperation among Students
3. Encourages Active Learning
4. Gives Prompt Feedback
5. Emphasizes Time on Task
6. Communicates High Expectations

We believe that small classes taught by experienced faculty and involving, whenever possible, upper-level students as co-teachers, are more likely to result in high levels of interaction, cooperation among students, and active learning (Principles 1, 2, & 3). These factors also communicate to students that the institution cares and invests in them and has high expectations, in turn, for their academic and social development (Principle 6). Feedback given to students via mid-term grades (Principle 4), direct, face-to-face advising assistance (Principle 1), and out-of-class contact with faculty (Principle 1) are particularly important in the first year. We believe that time on task (Principle 5) begins with class attendance, and we urge colleges and universities to take more seriously the mandating of attendance, especially in the first year. The implicit bargain many institutions strike with first-year students—"Don't expect too much of us and we won't expect too much of you—will only be broken when faculty are reinforced and rewarded for teaching first-year students and when institutions design and manage the first year intentionally with an understanding of its importance either as a launching pad and framework for collegiate success or one year out of four (or fewer) that is wasted.

Finally, we acknowledge the limitations of this research—some imposed by the 2000 Carnegie classification system itself and some imposed by the nature of the questions. The survey format and method of administration did not permit us to investigate in depth a number of the responses. Additional qualitative research, planned by the Policy Center, will help us gain a deeper understanding of institutional differences and how to create the best and most effective experience for first-year students in American higher education, wherever they choose to enroll.

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Baccalaureate-general institutions are most likely to require all students to participate in an introduction to campus computing. Baccalaureate-liberal arts colleges are most likely to report that teaching or advising first-year students has a positive effort on the likelihood of tenure and promotion.

Masters institutions. In general, the response pattern for masters institutions is most like the response pattern from baccalaureate colleges, especially those in the less selective baccalaureate-general category. This is not surprising: Many small, residential colleges and universities with a primary liberal arts mission offer a few masters degrees and are therefore classified in the Carnegie system as master's institutions. This category, however, also includes regional comprehensive colleges and universities, many of which have large

populations of commuting students. With respect to special first-year programs, such as learning communities, service learning, supplemental instruction and the use of early alert systems, masters institutions are most similar to research intensive universities. Overall this institutional category is "in the middle" rarely being particularly high or low on any response category.

Research universities. The research university category, comprised of both research intensive and research extensive institutions, often represents some of the most strikingly different responses to the survey. Institutional size, whether large or small, does influence structure, policy, and programs, and the research universities' approach to the first year is often because of or as an antidote to their large size. In these institutions, overall responsibility for the first-year curriculum tends to be assigned at the dean level—either dean of a general or university college or an academic college rather than at the "Chief Academic Officer level," which is the most common response for other institutional types. Not surprisingly, the largest first-year classes can be found in the research university, specifically in the disciplines of psychology and biology. Faculty teaching responsibilities are also more evenly divided between the various instructor categories including graduate students who provide a significant portion of instruction, especially in English and math.

Research universities are less likely than baccalaureate and masters institutions to require that first-year students take one or more courses in common, but are more likely to implement this requirement than are two-year institutions. Remediation is quite common in the research intensive sector (80% of respondents); somewhat less common in the research extensive institutions (63.6%). As a group, less than 30% of these universities have an undergraduate attendance policy; virtually none of them have a special first-year attendance policy. Mid-term grades are generally collected and reported, most often to students, academic advisors, and coaches.

The percentage of these large institutions offering programs designed to "make the large university seem small" and create a greater sense of community is striking. This sector is more likely to offer first-year seminars, courses in residence halls, learning communities, and supplemental instruction than are other sectors of American higher education.
These institutions generally either permit students to select a major or strongly encourage them to do so. But few have policies that either disallow or require major selection in the first year.

The structure of academic advising in the research universities is mixed, but these institutions are significantly more likely to offer at least some centralized advising than are baccalaureate colleges. Advising itself is far more likely to be done by professional advisors than at baccalaureate institutions. Although research institutions are less likely than baccalaureates or masters institutions to require face-to-face advisor/advisee contact, a significant number (> 50%) do require this interaction.

Research universities are most likely to report that teaching/advising first-year students has either no effect or "an effect that varies by department" on tenure and promotion decisions.

Conclusion

What matters in the first year? Are certain structures, systems, policies, and programs better than others, and where do we turn for guidance on these most important questions? Whereas some aspects of curriculum design and implementation may affect student retention and academic growth differently or not at all, other curricular policies and practices matter a great deal. To answer the "what matters" question, educators often turn to the retention literature for guidance, and many of the questions on the survey are directly linked to the factors that predict student retention. However, we would also like to emphasize what we believe is a strong link between a number of these findings and the often-cited "Seven Principles for Good Practice in Undergraduate Education" (Chickering & Gamson, 1987). We would argue that "what's good for undergraduates" with respect to the quality of their educational experience—including, but not limited to retention—is essential for first-year students. Of the seven principles, the first six are particular relevant to this research. They are as follows:

1. Encourages Contact between Students and Faculty
2. Develops Reciprocity and Cooperation among Students
3. Encourages Active Learning
4. Gives Prompt Feedback
5. Emphasizes Time on Task
6. Communicates High Expectations

We believe that small classes taught by experienced faculty and involving, whenever possible, upper-level students as co-teachers, are more likely to result in high levels of interaction, cooperation among students, and active learning (Principles 1, 2, & 3). These factors also communicate to students that the institution cares and invests in them and has high expectations, in turn, for their academic and social development (Principle 6). Feedback given to students via mid-term grades (Principle 4), direct, face-to-face advising assistance (Principle 1), and out-of-class contact with faculty (Principle 1) are particularly important in the first year. We believe that time on task (Principle 5) begins with class attendance, and we urge colleges and universities to take more seriously the mandating of attendance, especially in the first year. The implicit bargain many institutions strike with first-year students—"Don't expect too much of us and we won't expect too much of you—will only be broken when faculty are reinforced and rewarded for teaching first-year students and when institutions design and manage the first year intentionally with an understanding of its importance either as a launching pad and framework for collegiate success or one year out of four (or fewer) that is wasted.

Finally, we acknowledge the limitations of this research—some imposed by the 2000 Carnegie classification system itself and some imposed by the nature of the questions. The survey format and method of administration did not permit us to investigate in depth a number of the responses. Additional qualitative research, planned by the Policy Center, will help us gain a deeper understanding of institutional differences and how to create the best and most effective experience for first-year students in American higher education, wherever they choose to enroll.

The James Madison University Student: Before, During, and After Enrollment 1993 to the Present

The Office of Institutional Research (OIR) at James Madison University (JMU) has recently concluded a series of studies to learn ways in which JMU's students have changed since the early 1990s. The first study explored changes in JMU students prior to their enrollment. The second study examined the changes in students after they enrolled and before they graduated. The third study reviewed what is known from alumni surveys about our graduates. The purpose of this paper is to summarize the findings of these three studies.

OIR undertook these historical studies to shed light on changes that usually occur over a period of years. Annual changes are normally small, but changes when viewed from a vantage of 10 to 15 years, can be significant. A variety of information sources were used. Data from official reports (enrollment census files, graduation files, etc.) were used as well as annual surveys (*First Year Survey* (formerly the *Freshman Survey)*, *Continuing Student Survey, and Alumni Survey*).

Prospective Students

This study examined changes in student demographics and expectations prior to their enrollment. The major sources for this study were the admissions data files sent to the State Council of Higher Education for Virginia (SCHEV) and the annual *First Year Survey* taken by students prior to their enrollment. Below are the major findings, with updates through Fall 2006**.**

- The number of applied, accepted and enrolled first-time freshmen increased significantly from Fall 1993 to Fall 2006. Applications increased 58 percent, accepted freshmen increased 111 percent and enrolled freshmen increased 88 percent. Overall, the freshman class grew from 2,082 to 3,748.
- JMU's acceptance rate increased from 47 percent in Fall 1993 to 68 percent in Fall 2005.
- Between Fall 1995 and Fall 2006, JMU's average SAT combined decreased slightly from 1,186 to 1,140.
- The percentage who reported in the *First Year Survey* that their average grade in high school was in the 'A' range increased from 43 percent to 55 percent. This positive indicator was associated with the increase of freshman women. Within specific skills, students reported increased preparation in study habits, computer skills and vocational skills. There was also a decline in the percentage that stated they were very well prepared students in mathematics and a slight decline in foreign languages preparedness.
- Virginia Tech remains the in-state school that respondents are most likely to report that they applied to and were admitted to. Out of state schools most likely applied to are the University of Delaware, Pennsylvania State University and the University of Maryland at College Park.
- Application trends indicate that male interest in JMU has increased in a similar way to female interest. However, acceptance rates for women increased 30 points over the past 13 years while the rates for men increased slightly after six years of decline that began in Fall 1996.
- The increase in the percentage of women in the freshman class was associated with trends in the *First Year Survey* questions that vary by gender. For example, analysis of the annual survey has found that men are more likely to adopt a vocational philosophy of education and this historical study found that the percentage of students that selected this philosophy declined over the past ten years. On the other hand, women tend to hold a social philosophy of education and the percentage that selected this philosophy increased over time.
- There has been a slight decline in the percentage of non-white students over the past 13 years. African-American freshman enrollment dropped from 167 in Fall 1993 to 61 in Fall 2004, but has increased to 184 by Fall 2006. Overall, non-white enrollment decreased, from 14 percent in Fall 1993 to 11 percent in Fall 2006.
- The geographic representation of freshmen was basically steady from Fall 1993 to Fall 2006. The 13-year average enrollment for out-of-state freshmen was 34 percent. This percentage varied from 30 percent to 38 percent without a trend over the 13-year period. Within Virginia, 45 percent of the in-state freshmen have come from the Northern Virginia region.

Current Students

This study examines the changes in student demographics (majors, enrollment, etc.) and attitudes over this period. This study does not examine individual changes, but aggregate change over the years. The major sources for this study were the headcount data files sent to SCHEV and the annual *Continuing Student Survey* taken by students in classes during the Fall term. Below are the major findings with updates through Fall 2006**.**

- Total on-campus enrollment grew 53 percent, from 11,343 in Fall 1992 to 17,393 in Fall 2006.
    - Undergraduate degree-seeking enrollment grew 60 percent, from 9,787 to 15,653.
    - The undergraduate portion of total enrollment grew from 86 percent to 90 percent.
    - Graduate degree-seeking enrollment decreased from 866 in Fall 1992 to 733 in Fall 2000. Enrollment has since increased to 1,138 in Fall 2006. The overall increase was 31 percent.
    - The graduate degree-seeking and non-degree-seeking portion of total enrollment declined from 10 to 8 percent.
    - Non-degree-seeking student enrollment varied without trend from 690 to 584, with a high of 888 in Fall 1998.
    - The non-degree-seeking portion of total enrollment varied between 3 and 6 percent.
- For undergraduate students, the following major changes and trends were found:
    - JMU maintained both a highly selective reputation and high graduation rate. By gender and race/ethnicity, graduation rates were better than national figures for selective institutions.
    - Gender diversity decreased. Female enrollment increased almost twice as much as male. The female portion of undergraduates grew from 55 percent to 61 percent.
    - Racial/ethnic diversity decreased. Asian/Pacific Islanders, Hispanics and Nonresident Aliens grew. African-Americans declined through Fall 2004, and American Indian/Alaska Natives continued in small numbers.
    - Out-of-state undergraduate enrollment grew from 25 percent to 29 percent.
    - Full-time undergraduate enrollment grew from 96 percent to 97 percent – highest among college and universities in the United States with enrollments over 15,000.
    - Baccalaureate degrees conferred grew 60 percent, from 2,187 to 3,501 in 2005-06.
    - One-year retention and six-year graduation rates dipped slightly over the period, then returned to 92 percent and 80 percent, respectively. African-American graduation rates increased from 55 percent for the Fall 1992 cohort to 73 percent for the Fall 1999 cohort, reducing the dropout rate by more than one-third.
    - Most popular majors remain somewhat constant: psychology, biology, interdisciplinary liberal studies and media arts and design (formerly mass communications).
    - Students remain middle class as indicated by their responses to questions regarding family income, parents' formal education and personal achievements, philosophies and values.
- For graduate students, degree-seeking and not, the following major changes and trends were found:
    - Out-of-state graduate enrollment grew from 15 percent to 25 percent.
    - Gender diversity varied without trend between 61 and 69 percent female.
    - Racial/ethnic diversity increased. Although the number of minorities was small, they increased from 8 percent to 12 percent of graduate student enrollment. African-Americans were the largest minority group with 39 students in Fall 2006.
    - Full-time graduate enrollment grew from 40 percent to 56 percent.
    - Average credit hours taken per semester by full-time graduate students increased slightly from 10.49 to 10.92.
    - Graduate degrees conferred (Master's, Educational Specialist and Doctoral) grew 78 percent, from 295 to 526.
- Changes and trends in student attitudes from the *Continuing Student Survey* were:
    - JMU student characteristics and attitudes toward the university remain remarkably positive, and in many instances, have improved. For example, the percentage of students that express high levels of satisfaction with JMU in general has remained at 94 percent since 1990.

Alumni

This study examined what has been learned about alumni within two years of their graduation. The major data sources for this study have been the alumni studies conducted by the Center for Assessment and Research Studies (CARS), Academic Advising and Career Development (AACD) and OIR. Below are the major findings.

- Nearly all JMU alumni report being satisfied with their JMU experience. This trend has been consistently high from 1996 to 2006.
- Nearly all alumni respondents are likely to recommend JMU to a colleague, friend or relative.
- The majority of alumni are satisfied with the cost of their JMU undergraduate education.
- Alumni have been consistently satisfied with campus life, intellectual and cultural environment/extra-curricular activities.
- New graduates are successful in finding employment, and the longer they are out of school the better the employment opportunities reported.
    - On average, 70 percent of alumni who graduated within the last year are employed.
    - Ninety percent of alumni who are two to five years from graduation are employed.
    - On average, 61 percent of new graduates are employed in-state. Fifty-four percent of alumni who are two to five years from graduation are employed in-state.
- In general, the longer the timeframe since alumni completed their undergraduate degree, the more likely they are to have taken graduate coursework.
    - Forty-four percent of alumni who are five years from graduation are taking or have taken graduate-level courses; whereas about 28 percent who are two-years from graduation and 18 percent who are up to one-year from graduation have done so.
    - There is an increase of 7 percent of alumni from 2004 to 2005, who are up to 60 days from graduation, who have taken graduate coursework.
- There exists a consistently high rating for the JMU undergraduate major helping performance in the workplace.
- JMU alumni believe that JMU prepared them academically to attend graduate school.
- There has been an increase in the ways that alumni plan to keep (or have kept) in touch with JMU.
    - In 2002, at least 50 percent of alumni favored the JMU website and visits to campus.
    - The 2005 alumni favored the JMU website, homecoming, visits to campus, alumni association website, email or phone to former faculty or staff, the alumni association at JMU, and the college website as ways to keep in touch with JMU. This may indicate changes going on internally to JMU to increase outreach.
    - Overall JMU alumni, regardless of how long they have been away from JMU, report that networking and internet resources helped them find professional employment.
- General Education (GenEd) at JMU has had a positive influence on JMU alumni in many ways.
    - Ratings are consistently high to moderate in assessing for the influence of GenEd on alumni in the following areas: communication skills, information literacy, critical thinking skills, development of awareness of both physical and emotional wellness, problem-solving skills in science and mathematics, and understanding the development of western civilization and its interaction with other traditions within the global community.

An Exercise to Help Prevent CS139 Cheating

Problem:

The students in CS139 are faced with larger programming projects than they may have seen in their high school courses or are dealing with large programs for the first time in this course. Due to time management issues and a fear of failing, some of these students feel compelled to break the rules and to work together or to outright steal code from one another. These cheating cases are stressful for the instructor as well as for the students.

Opportunity:

Students may not realize that the impact of cheating and getting caught is far, far worse than not turning in an assignment at all. While some may not want to be complicit in a cheating case, peer pressure may force them into that situation. Providing them with some tools to rationally approach the problem may help to prevent further cases.

Goal:

The goals of this exercise is:

- to make students aware of the kinds of cheating that can occur
- to help them rationally consider that the impact of a single failed assignment is negligible to their grade
- to provide them with some possible ways of preventing cheating if they are put into that position

The Exercise

This exercise is done after the first (trivial) programming assignment, but sometime before the third (more difficult) assignment. It takes about ½ 50 minute class period with a preliminary reading assignment ahead of time. I have copies of the JMU honor code available as well as the individual worksheets.

Method

Students read the 6 cases before class. (Sometimes for motivation I ask them to identify any that they think I have made up and which are actual incidents. In all cases, these are cases that I have found.)

In class, they are grouped together in teams of about 4 students. They each get one case with a series of questions. They are supposed to discuss with their group the answers to the questions.

The instructor randomly chooses teams to report back. In some cases, the entire class will get into the discussion. The instructor guides the discussion specifically asking questions such as “What is the worst that can happen if the student fails to turn in the assignment?” “When can the student go to talk to the professor?” etc.

The Cases

Panic Attack

Frank was behind in his programming assignment. He approached Martin to see if he could get some help. But he was so far behind and so confused that Martin just gave him his code with the admonition that he could “look at it to get some ideas”.

In the paraphrased words of Frank: “I started the assignment 3 days after you put it up. But then other assignments came in and I started on them too. I felt like I was chasing rabbits and began to panic. It was already past the due date and I got really scared. That’s when I went to Martin to see if he could help.” Of course Frank copied the code and turned it in as his own.

A Friend Indeed

Jeffrey was having trouble with one of the last programming assignments. He didn't even know where to begin and it was already late. Another student, Stephen, lived in his hall and he was pretty friendly with him. Jeffrey went to Stephen's room and told him that his computer was acting flaky and could he borrow his to finish up the program? Stephen was on his way out to dinner and told him okay. When he got back Jeffrey was gone.

While Stephen was out, Jeffrey searched for and located his code for the assignment on his machine. Jeffrey copied it onto his floppy drive and took it back to his room, where he modified the code a bit before submitting it for a grade.

Oops

Emily was working in the lab on her programming assignment. She finally finished the program and submitted it and went on to do some other work. Shortly thereafter, she left the lab.

Another student, Kyle, was working nearby. He knew that she had successfully submitted the assignment, and he had not been able to get his to work properly. When Emily left, he noticed that she had not logged out of her computer. He moved to her workstation, found the work on her N: drive and copied it onto his memory stick. He then logged out, logged in as himself, and copied the code onto his N: drive where he modified the program a bit, then successfully submitted it.

Too Close for Comfort

Bill and Jeff were first year students and were rooming together in the fall semester and were taking CS139 together. Bill was an excellent student for whom the work in CS139 seemed to come easily. Jeff seemed to struggle a bit more, but was able to do the work and turned most labs and programs in on time.

Both programs came in looking virtually the same. When confronted, Jeff claimed the work as his own and stated that he did not know how the code from the roommates was the same. Later Bill told the professor that while programming was easy for him, he had struggled with another class and then got behind with this program. He didn't think the professor would find out and so stole his roommate's code and turned that in.

Let's Make a Deal

It was mid-semester and the pressure was on, not only in CS139, but in other classes as well. Two students, Jamie and Pat were working on the programming test in the lab, but neither was having much success. Jamie had started the program days ago, but was having trouble debugging his current work. Pat had just started this day and knew that she would be late in turning it in. Pat offered to help Jamie work out the problems with her code. Together and after a couple of hours of work, they got the program to work. Pat said, "Now that yours is working, can you give me the code so that I can also get credit for this assignment." When Jamie objected, Pat said, "Hey, you wouldn't have gotten it finished if it weren't for my help, and now mine will be even later." So Jamie turned over a copy of the code. Pat made some changes to a few sections, and then turned the program in.

A friend of Pat's also was having problems with the program. Pat offered the "community" code to her friend who changed a few variable names and turned in a third copy of the program.

A Friendly Assist

George was struggling with the latest programming assignment that was due to be submitted that night. He had gone home over the weekend, thinking that it would be easy to do this assignment, but it turned out to be more difficult than he thought. After working on some parts of it and giving up in frustration, he turned to Shelley an upper-class CS

student who had taken 139 several semesters before. He showed Shelley the assignment and the two of them worked on it late into the night. It successfully submitted with only a one day late penalty.

Sample of the questions

Which, if any, of the students were at fault? Why?

What JMU Honor Code violations occurred? – refer to the Honor Code sheet

What should Shelley have done in this situation?

What options did George have besides cheating?

Time Management CS 239 Activity

Problem:

The students have large programming projects to do in this class. The project is assigned and is due 2 weeks after the assigned date. My expectation is that overall they will spend from 10 – 20 hours on each project. (This is a four credit hour class and this is the main out of class homework with a lot of variability in individual student performance.) Students in CS139 have had similar although usually smaller projects throughout that semester. For this first project, many students were overwhelmed by the level of detail required by the assignment. They underestimated their time and as a result, the day it was due, many were panicking and demanding office hour time. Many turned the project in late or in an incomplete state.

Opportunity:

This provided me with an opportunity to focus on their time management specifically related to the course. There was motivation due to the panicked state of many of the students.

Goal:

The goals of this series of exercises were:

- to make the students more self-aware of how long the projects take
- to help them to see that there are more productive ways to spend that project time
- to reduce the level of frustration the last day that a project is due
- to help the students to do higher quality work of which they can be proud

Transforming the Skill Bites exercise

My version looks quite a bit different from the Skill Bites original. Rather than focusing the students on how they spend all of their time (and having general non-compliance which I thought might happen) I wanted them to focus on how they spend their time related to that one activity. The categories for my exercise were: Design, Coding, Testing, and Debugging, 4 distinct tasks in the software development process. There is some "leakage" among the activities, but they are generally distinct phases. My goal is also to help them put more time into the Design phase so that they spend less time on the Debugging phase (which is where they burn many hours trying to fix code that does not work as intended.)

Steps:

1. Make the students more self-aware about their use of time on the last project while it was still fresh.
2. Prepare them to account for the time they spent on the project.
3. Provide some exercises that require that they spend additional time on the Design phase.
4. Continue to have the students monitor their time on task. (This will be ongoing all semester long.)

Self Reflection and Sharing Exercise (This is Step 1)

Name: _____

Survey about this first PA (Programming Assignment).

1. Did you submit the PA on time? _____ If you submitted to the test system, how many tests did you run? _____

   If you did not submit to the test system, why not?

2. If yes, did you produce excellent work or did you just get it to the point of being able to turn in? _____

3. Estimate the total number of hours you spent on this project from when you first read the specifications to turning it in…if you are still working on it, estimate the number of hours that you have put in thus far. _____

4. Based on the total number of hours, how much time did you spend on?

   - Design (thought process, building stubs, documenting, working through what each method might do)_____
   - Coding (writing first pass code on the basis of the design that you used or wrote) _____
   - Testing (running through tests to know what works and what methods have failed...include time spent running through submit since this is a set of tests as well). _____
   - Debugging (after testing, correcting code and then retesting to correct a specific problem.)
   - How much time prior to Tuesday? _____ Tuesday and Wednesday combined? _____

6. Did you unit test? (Test individual methods in Rainfall and RainfallIO in isolation to insure that they work correctly before trying to put them together? _____

7. Thinking about PA2, what one thing would you like to do differently from what you did in PA1?

8. What one thing in this PA gave you the most trouble? Be specific.

In your groups, share the results of the survey with one another.

Is there any difference among how the students spending less time spent that time? Is there anything you can learn from this? Describe

Looking at what gave you the most trouble, is there anything that your colleagues can suggest for next time? How did they go about solving that problem, or what resources did they use?

Step 2: From the next Programming Assignment

Timesheet

To help give you some idea of how you are spending your project time you will fill out a timesheet.xls, timesheet.pdf, timesheet.ods recording all of the time and the category into which that time goes for every block of time that you spend on the project. (Choose whichever format you prefer. The pdf version is intended to be filled out by hand while the other two are intended to be electronic records.) While it may be scary to see how many hours you put into a programming project, this will help you to plan better for future projects in the class and others. When working on customer work, your time might also be billed back directly to the customer necessitating an accurate accounting. An explanation of the categories:

1. Design - Any time that you spend thinking through, charting, diagramming, or writing pseudo code is considered design time. You may have a big chunk of design at the beginning, and then small amounts as you try to work through a particular problem or issue.
2. Coding - Any time spent writing code that is new to the project would be coding time. Don't count the time that you are coding in direct response to an execution error from a test. Do count as coding any time that you spend coding after doing a design or redesign and before you begin testing the new solution.
3. Testing - Any time spent in testing the program using data. This might be unit testing (where you are simply testing a single component) or system testing (where you are testing how well the whole project works.)
4. Debugging - This is the time that you spend correcting and retesting problems that you find. The testing and debugging process might lead you to return to design if a particular component is not working properly.

Timesheet for : YOUR NAME GOES HERE				
	Indicate for each day how much time you spent on the various tasks. Round to the nearest 10 minute interval.			
Date	**Design**	**Coding**	**Testing**	**Debugging**

Step 3: From the third assignment

Continue having them keep a timesheet, but put an early design activity into the assignment.

Completed UML diagram for your application (your design) due in class in hardcopy form no later than Tuesday February 19th. You may do this diagram by hand or if you prefer, there is Visual Paradigm installed on the lab computers which can make nice UML diagrams or you may download MS Visio (which is what I used to build the diagrams we have looked at) from the MSDN alliance for free. pdf format visio format

TIMESHEET - Again, keep a detailed timesheet. Count as design any time that you spend on the UML diagram. Also count as design any time you spend planning each method. Make a conscious effort to put more time into design than you did on the last PA. Timesheet is due stapled to the back of the program report on Tuesday. Timesheets and their variants: Excel, OpenOffice, pdf

Step 4 & Ongoing:

They will need to keep a timesheet for each PA. As we do each one, I will include a new challenge, such as putting 90% of the time in the week the assignment is assigned, or limiting the number of tests that they run through the final tester.

The original Skill Bites exercise follows.

Time Management – Personal Time Style

Objectives:

- Students will evaluate their current use of time and identify their personal time style.

Materials:

- 1 Handout – Personal Time Style Chart
- 1 Index Card – Time management issue and solution

Time:

- In class assignment: 5-10 minutes
- Out of class activity: 10-15 minutes
- In class discussion: 10-15 minutes

Outline:

- Administer scale
- Optional activities:
  - Group discussion
  - Web review on topic

Procedures and Activities

- Students will complete the personal time style chart in class and write a short essay reflecting on their personal chart. A discussion will take place in class regarding time management issues and potential solutions. Each student will then take their chart home and evaluate it further. IN the next class each student will submit an index card that identifies at least one (1) time management issue he/she has and at least one (1) solution to that particular issue. (Note: This could also be turned in electronically through Blackboard.)

Explanation

- Time management is an important part of our lives and good time management allows us to make educated choices about how to use our time. This short exercise will allow you to find out what type of time manager you are currently and help you to identify how to better organize and manage your time.

Suggestions for further integration

- Students discuss problems in small groups and brainstorm solutions.
- Assign a review of web-based time management sites.

Time Management – Personal Time Style Chart

Rate each statement below as it best describes you. The rating scale is listed below:

1 = Does not describe me at all
2 = Describes me slightly
3 = Describes me fairly well
4 = Describes me very well

	1	2	3	4
1. I often wake up later than I should.				
2. I am usually late for classes and appointments.				
3. I am always in a rush getting places.				
4. I put off big tasks and assignments until the last minute				
5. My friends often comment on my lateness.				
6. I am easily interrupted, putting aside my current project to start something new.				
7. When I look at the clock I am often surprised at how late it is.				
8. I often forget appointments and often have to reschedule.				
9. When faced with a large task I feel overwhelmed and turn my mind away from it until a later time.				
10. At the end of the day I have no idea where the time went.				

Your personal time style can be assessed by adding up your points and using the scale below:

10-15 Very efficient time manager
16-20 Efficient time manager
21-30 Time use needs some work
31-40 You are a victim of time

In the space below please reflect on your score on the personal time style chart.

Time Management – Weekly Activity Chart

Objectives:

- After creating their personal time style chart, students will create a weekly activity chart.

Materials:

- 1 Handout – Weekly Activity Chart

Time:

- Out of class activity: 30 minutes
- In class discussion: 10-15 minutes

Outline:

- Administer scale

Procedures and Activities

- Students will complete the weekly activity log of all activities. Each student will also include an overall reflection and answers to the time management questions.

Explanation

- Completion of this weekly activity chart will help you to discover how busy you actually are on a daily basis. The chart will help you identify over and under-use of time in certain areas. After completion and evaluation of this chart, you should be able to identify activities that get in the way of good time management. Once these activities or periods of time are identified, you can then make decisions on how to improve your use of time.

Suggestions for further integration

- Students will add course assignments, quizzes, tests, etc. to a monthly calendar.
- Students discuss problems in small groups and brainstorm solutions.
- Assign a review of web-based time management sites.
- Assign pairs of students who will keep track of each other throughout the quarter. If time permits they could give an update on each other at the end of the quarter.
- Photovoice Gallery - Have students take photos of things that get in the way of their own good time management. Post photos in gallery form around the classroom for all to review. Students could also use post-it notes to write suggestions for classmates and post them next to each student's photovoice gallery.

Time Management – Weekly Activity Chart

Activities should be logged and color-coded per the key below. (Chart on back.) Alternatively, if you are posting on Blackboard, you can use Word or Excel to make a color coded chart.

PERSONAL/LEISURE (Green) - (Eating, showering, getting ready, etc.)
TV TIME (Gray)
DRIVING/TRAVEL (Orange)
CLASS (Red)
STUDY (Purple)
WORK (Pink)
FAMILY (Blue) – (Cleaning, cooking, playing with kids, etc.)
SLEEP (Black)

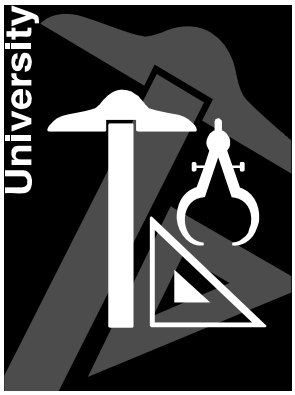
After completion and review of your weekly activity chart please answer the following questions:

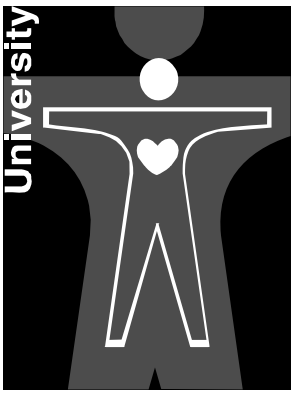
1. What changes need to be made to allow better use of your time?

2. What prevents you from making some of these changes?

Time Management – Weekly Activity Chart

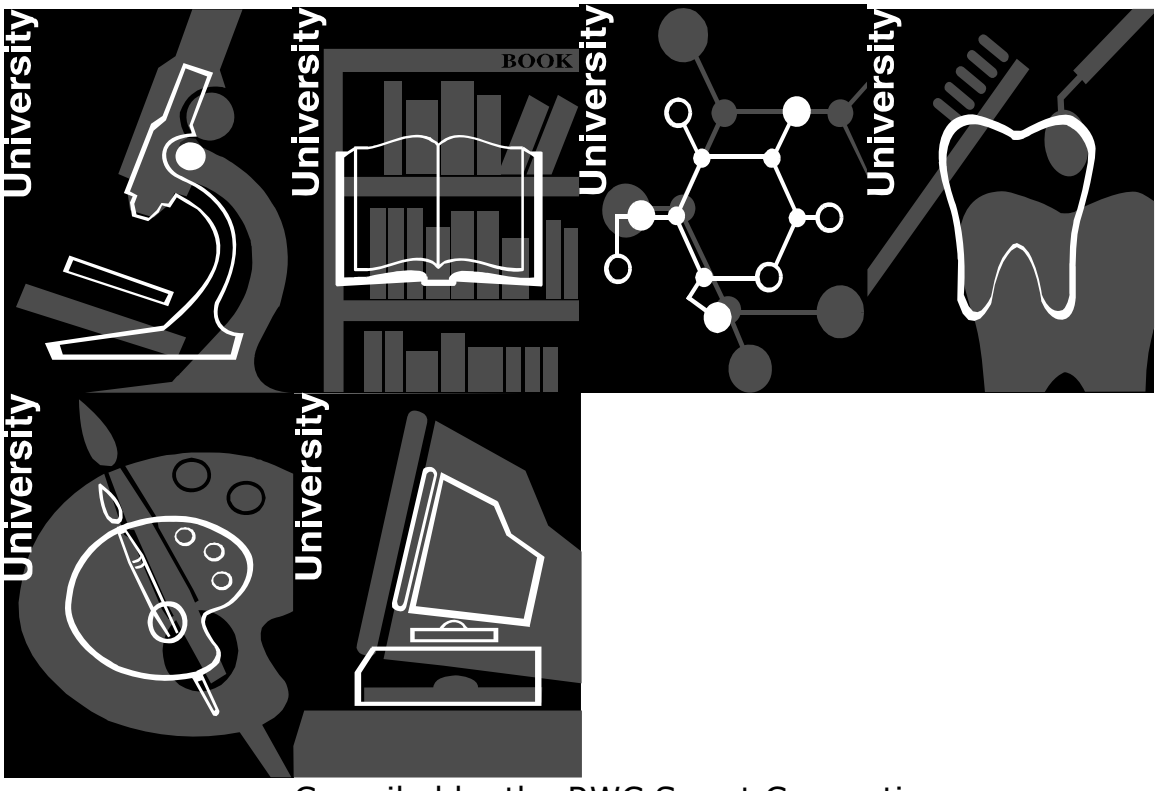
Time	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
Midnight - 1:00am							
1:00 – 2:00am							
2:00 – 3:00am							
3:00 – 4:00am							
4:00 – 5:00am							
5:00 – 6:00am							
6:00 – 7:00a							
7:00 – 8:00am							
8:00 – 9:00a							
9:00 – 10:00am							
10:00 – 11:00am							
11:00 am – 12:00 pm							
12:00 – 1:00 pm							
1:00 – 2:00 pm							
2:00 – 3:00 pm							
3:00 – 4:00 pm							
4:00 – 5:00 pm							
5:00 – 6:00 pm							
6:00 – 7:00 pm							
7:00 – 8:00 pm							
8:00 – 9:00 pm							
9:00 – 10:00 pm							
10:00 - 11:00 pm							
11:00 – Midnight							





Quick Skills Bites

Academic Skills for Discipline Specific Activities



Compiled by the RWC Smart Connections
Faculty Learning Community
2006

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Quick Skills Bites for the Disciplines

Overview

This packet is a collection of short activities that any instructor can adapt to his or her classroom. These Skills Bites are basic academic skills that students may or may not already be aware of. In the experience of the faculty who participated in creating these activities, first year students particularly benefit from doing these activities in the context of their course content. Many may have already taken a study skills course or reviewed these types of activities in other classes, however, they may need to be reminded to apply what they learned previously to a new course or a new discipline. It seems to help students to review these skills in the context of the specific course in which they are expected to apply these skills in two ways. First, students report that by going over strategies to help them succeed, they feel their instructor cares about how they do in the course. The perception that the instructor cares about a student has repeatedly been cited in learning research as a key element to promoting students' motivation to learn. Secondly, students who are asked to reflect on how they learn have shown better critical thinking and an increased awareness of their learning behaviors.

Application

Each Skills Bite outlines a general activity that you can embed in your course at the time when you think it would be best to review this skill in the context of the assignments you are giving, the topics being covered, or the time of the quarter. It is essential to relate the skill to the course content for the students to understand how it can be applied in an immediate and practical way.

Sometimes the pressure of content coverage and the way time seems to speed up as the quarter progresses makes it seem like there is no extra time to do yet another activity. However, these activities are intended to help you cover content. You can address important content thought the activities so that students read/study/prepare most effectively for assignments or tests. It is important to schedule the activities into your syllabus, or, in our experience, you will almost certainly forget to do them. It seems helpful to schedule some in the first week to get students off on the right foot and to help them understand the expectations of the course, and others are good to schedule as part of assignment preparation or test review.

Here are some recommendations for scheduling the activities based on our experience of testing them in the classroom:

First Week of Class:
- Creating a community
- Defining the discipline
- Hot topics
- Time Management
- Goal Setting
- Transfer Expectations #2

Preparing for reading assignments
- Reading strategies
- Different reading speeds for different purposes

Preparing for writing assignments
- Citation formats
- Writing for the discipline
- Information literacy: two kinds of sources
- Time management (relate to due dates)

Preparing for a test
- Dealing with test anxiety
- Time management (relate to due dates)

Reviewing a test
- Study strategies (relate to what worked for this test, and what needs to change for the next test).
- Time management (relate to what worked for this test, and what needs to change for the next test).

End of the quarter
- Transfer expectations #1
- Goal Setting (in the context of the next course in a series)

Study Skills Courses at RWC

For students who are interested in taking a course that focuses on study skills, they can enroll in courses through the Department of English and Communication. These courses include:

28 ENGL 175	3ch	College Study Skills I
28 ENGL 176	3ch	College Study Skills II

These courses cover a wide range of study skills with assignments that involve the discipline specific courses in which the student is enrolled.

The Reading and Study Skills lab also has tutors for students need help with reading and study skills. Contact Mary McClellan at 745-5730.

References Specifically About First Year Students (includes trends and survey data and support for "developmental education").

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National Surveys of First-Year Curricular and Co-Curricular Practices (2000)
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Wingate, Ursula, A Framework for Transition: Supporting "Learning to Learn" in Higher Education, Higher Education Quarterly, Jul 2007, v61 n3 p391-405.

Wingate, Ursula. Doing Away with "Study Skills", Teaching in Higher Education, Oct 2006, v11 n4 p457-469.

References from Adult Learner/Disability Literature

(Special thanks to Melinda Burchard for compiling this list)

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Geib, B. B., Guzzardi, L. R., & Genova, P. M. Intervention for adults with learning disabilities. Academic Therapy, 16, 1981, pp 317-325.

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Van Blerkom, D. L., Van Blerkom, M. L., & Bertsch, S. Study strategies and generative learning: What works? Journal of College Reading and Learning, 37, 1990, 7-18.

References about Learning Strategies

http://www.studygs.net Since 1996 the Study Guides and Strategies web site has been researched, authored, maintained and supported by Joe Landsberger as an international, learner-centric, educational public service. This site contains a wealth of strategies organized around topics.

http://coe.jmu.edu/learningtoolbox/ A JMU Resource from the College of Education. Many learning strategies are provided both for students and faculty to use.

Quick Skills Bites: Academic Skills for Discipline Specific Activities. Compiled by the RWC Smart Connections Faculty Learning Community, 2006. http://www.rwc.uc.edu/library/librarypdfs/quickskillsbites.pdf