Behavioral Dimensions of Course Grades

Carl J. Wenning, Coordinator Copyright © 2005 Physics Teacher Education Program Illinois State University

The following academic behaviors typically distinguish the "A" student from the "C" student in ISU Physics Teacher Education course work as elsewhere. They are closely connected to Teacher Education's conceptual framework *Realizing the Democratic Ideal*. These ten elements are characteristic of superior academic success; they are not sufficient conditions that guarantee success. Nonetheless, if you intend to get an "A" in this course, it would be best if your key academic behaviors came from the left column rather than the right. These conditions have not been tested empirically, but the "action research" of the course instructor shows that these characterizations are fairly good predictors of course grades.

"A" or superior students	"C" or average students

1. Ability

have special aptitude in a wide variety of areas. These	vary greatly in natural aptitude. Some might be quite
skills might include creativity and organizational skills,	talented in specific areas, but their success is limited by a
special insights, or prior relevant experiences.	lack of having a broad range of pertinent abilities.

2. Motivation

show strong initiative. Their desire to excel makes	seldom show much personal initiative. Are more
them do more work than is required just to get by. They	responsive to coercion. They never do more than required
are dedicated to their work and like the work that they do.	and sometimes do less. Low level of personal dedication.

3. Interest

are visibly interested during class and display interest	participate in class without enthusiasm, with
in the subject matter active through active participation.	indifference, or even boredom. They show little, if any,
They often volunteer thoughtful comments and ask	interest in the subject matter. They comments in class,
interesting questions.	when make, show lack of interest generally.

4. Attendance

never miss class. Their commitment to the class	periodically miss class and/or are often late. They
resembles that of their instructor. Missing even a single	either place other priorities, such as a job, ahead of class
class is not an option without a major reason.	or have personal problems that limit their success.

5. Communication Skill

write well and speak confidently and clearly. Their	do not write or speak particularly well. Their thought
communication work is well organized, covers all the	processes lack organization and clarity. Parts of their
relevant points, and is easy to listen to/read. They make	written work might require a second reading by the
use of computer resources to communicate well.	professor to comprehend its meaning.

6. Performance

obtain the highest scores in the class on tests and	obtain mediocre or inconsistent scores. They often do
projects. They exhibit test-taking skills such as an ability	not budget their time well on exams and might not deal
to budget their time and to deal with test anxiety. They	well with test anxiety. They rarely say much during class
put considerable effort into class projects that show a	discussion and their answers indicate a cursory
strong desire to exhibit the best possible performance.	understanding rather than a mastery of the material.

7. Preparation

...are always prepared for class. They always respond when called on, and actively contribute even when not called upon such as during discussion. Their attention to detail sometimes results in catching text or teacher errors. ...are not always prepared for class. They might not have fully completed the assignment, have completed it in a careless manner, or hand in their assignments late. They rarely contribute to class discussions unless called upon.

8. Understanding

...learn concepts rather than memorize details so that they are better able to connect past learning with present material. Clearly can apply knowledge to a variety of situations. Shows evidence of "deep learning" rather than "surface learning." Written papers show a high degree of professionalism including empirical research findings.

...memorize details rather than learn concepts. Because they usually cram for tests, they perform relatively better on short quizzes than on more comprehensive tests such as the final exam. Shows evidence of "surface learning." Written papers show lack of insight and are filled mostly with opinion rather than research findings.

9. Time Commitment

...maintain a regular study and homework schedule. They regularly prepare for each class no matter what the assignment. They average one to two hours of study for every hour in class; they work diligently and regularly on their course projects. They do not procrastinate.

...study or do homework only under pressure. When no assignment is due, they do not review or student ahead. They average no more than a few minutes of study for every hour in class. They cram for exams, and procrastinate on regular course assignments.

10. Metacognition/Self Regulation

...think carefully about what they know and don't know. They use such practices as reflective reading and teaching, take an inventory of their own knowledge, administer self-tests, reflect on and learn from failings. They have good conceptual understanding, and seek to comprehend the "big picture."

...are generally unaware of what they know, don't know, and need to know. They do not reflect on their intellectual state of affairs and fail to take an intellectual inventory. They tend not seek or have a broach conceptual understanding. They tend to focus on details, and rarely see the "big picture."

11. Critical Thinking

...are critical thinkers. Critical thinking is characterized by a set of attitudes more than anything else: trying to be well informed, staying focused, seeking precision, proceeding in an orderly manner. ...are rarely critical. They tend to "go with the flow" and follow the path of least resistance. They tend not to question and accept things on the basis of authority, often without understanding.

12. Commitment to Personal and Professional Growth

...make effective and regular use of the instructor's Assessment-as-Learning policy. They regularly submit work prior to deadlines, and benefit from insights provided by the course instructor. They take all course assignments seriously as a means of professional growth.

...rarely if ever take advantage of the instructor's Assessment-as-Learning policy. They are generally of the opinion that they can do the work correctly and completely the first time, and are not in need of any form of assistance. Professional growth does not appear to be a high priority.

Adapted and greatly expanded from "Communicating about the behavioral dimensions of grades" by Paul Solomon and Annette Nellen, San Jose State University, and appearing in *The Teaching Professor*, February 1996, pp 3-4.