STUDENT COMMENTS ON SPOT RESPONSE SHEETS
William Bricken, Seattle University Master of Software Engineering Program
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[SPOT is the Seattle University student evaluation of teaching form. Each student completes it on the last day of each 10 week course. SPOT stands for Student Perception Of Teaching.]

Here are some positive comments written on the SPOT data sheet from students in my classes from 1998-2000. Most of the below quotes were to the question: "What aspects of teaching or content of this course/lab section do you feel were especially helpful?"

Mathematical Foundations, Autumn 1998 (23 students responding)

"The lectures were successful in stimulating thinking. The reading assignments were a good compliment."

"I liked the different approach to the course. It focused more on thinking and how to approach mathematics than just doing problems. It gave quite a different perspective."

"I thought the inclusion of everything the teacher knew/had been exposed to in all of the lectures rather than a rehash of text material was great. I think the flexibility to teach what the students were ready to learn was refreshing."

"The open-mindedness approach encouraged personal as well as academic growth."

"The broad treatment of many perspectives on the subject was enormously useful. It is unusual to find a course that connects with so many other areas."

"William's lectures which challenge my thinking on fundamental concepts."

"Instructor was very good."

"Dialog"

"Open discussion -- no wrong answers! Refreshing to feel I wanted to learn instead of I have to learn."

"The grading system allowed us to concentrate on learning instead of the pressures of the achievement of a grade. Excellent stories."

Data Structures and Algorithms, Spring 1998 (17 students responding)

"Lectures were excellent. Very provocative course. Highly enjoyable."

"I felt more challenged and more like a graduate student than I have in most classes."

"Discussions -- Dr. Bricken engages us in conversations that are the most interesting part of the class."

"Great class"

"Dr. Bricken was amazingly available and approachable."

"I appreciated the broad view of data structures and algorithms taken by Dr. Bricken. This helps me appreciate the applicability of the subject matter to my life."

"Liked the fluid course format especially student's self-evaluation."

"Learn new ideas of advanced, abstract data structures."

"It brought up a lot of ideas that are not in a normal work day."

"The lectures were exceptionally good, especially his non-traditional view of the content."

"An environment that I felt very comfortable to ask questions."

Human Computer Interaction, Autumn 1998 (9 students responding)

"Excellent stories and explanation of experience. Teacher's knowledge of subject is excellent."

"Instructor did a good job of anchoring diverse content to common ideas."

"This is how graduate work is supposed to be. This really brought a lot to my mind that I don't think I'd have gotten without the project format."

"Contractual grading is a great idea. It gave me an opportunity to pursue subject matter that otherwise would have been unavailable. Instructor's extensive and first hand experience in even the least publicized aspects of the class made it a one-of-a-kind experience beyond any textbook. A true graduate level experience."

Mathematical Foundations, Autumn 1999 (14 students responding)

"Homework and lectures. Dr. Bricken is excellent teacher, he explains class material clearly. I love it and useful tools in software engineering."

"It gave me a great idea of how discrete math related to computer science. The help can be used directly to my job. I also learn something new."

"Broad exposure to interesting and sometimes amazing mathematical ideas."

"Mathematical Philosophy made me think really important things. Graphs and trees - great!"

"The instructor has an extensive knowledge of topics discussed in class. This proved to be extremely beneficial to my learning."

"The lectures and handouts were very helpful. The final paper was extremely helpful in bringing all the lectures together."

"Great class and instructor."

"Broad nature of course, emphasis on exposure rather than total understanding."

"Instructor's experience and depth of knowledge. Did I learn a lot? May be not. Will I remember what I did learn? Undoubtedly."

"Since I have already taken most classes, effectively skipping this earlier and have good grasp of math, my interest in general was low. Were it not for william's approach to the course I probably would have gotten much less from it."

"The way of presenting like concepts of mathematics was really great. This is a different type of approach and I enjoyed it very much."

Artificial Intelligence, Autumn 1999 (8 students responding)

"The example programs to study the history of AI from the perspective of one who lived it. Great class, great experience. I thoroughly enjoyed it."

"I enjoyed the fact that this class didn't have a lot of structure to it. We were given the syllabus and used it as a guide to learn in our own way. I felt like I got a lot out of his class because of it."

"Bricken has a unique style of teaching that I flourish under. I'm not sure if it works for everyone but he leaves it up to you to learn for the most part, for me it always work."

"Great overview of the field. Definitely felt like I was given an insider's views."

"Philosophical discussions were important in helping the class root out the importance in not only the field but in how we interact as well as what we can expect from machines. As always Dr. Bricken was both enlightening and illuminating."

Data Structures and Algorithms, Spring 2000 (11 students responding)

"The assignments improves my understanding of course content."

"Exposure to an assortment of unconventional/non-traditional ideas."

"Instructor is very nice. Way of teaching inspired thinking with new direction."

"Dr. Bricken! I like the fact that he brings a more academic view to the curriculum. It forces me to think about why I code the way I do. I feel I can pretty much code/program anything but Dr. Bricken forces me to actually understand."

"allowing motivated students to learn on their own. Also, discussions about trade-offs using certain data structures and techniques. The final homework was fun."

"Final assignment was extremely valuable."

"Professor Bricken has an extraordinary approach to teaching and learning, the depth of the material in the course could take years of research to understand and fully appreciate. Free and exploratory thought is encouraged, and has opened a new world of interest and future inquiry for my learning and experience."

Programming Methods, Spring 2000 (19 students responding)

"Instructor's deep knowledge of the subject & his ability to expand my mind to think outside the conventional channels greatly enhanced my learning and enjoyment of the class. Great course well taught! I learned a lot, and as I have come to expect from Dr. Bricken, I learned to think slightly differently about the subject."

"Lectures which were hard core. Final and 1st assign."

"The lectures, the evaluation of programming language. Diagrammatic explanation. Explanation at a very low level understood by everyone. Understanding students diversity. Instructor was very understanding and understood the various levels of education the students had. He is an excellent teacher."

"Scale and scope of study was tailored for each students needs. Good student participation in class discussions."

"Very flexible assignments allowed us to customize completion or work within out own programming environment."

"Flexible nature of the curriculum. Nice to be asked what we wished to learn about."

"Real world examples. Exposure to various programming methods. The assignments challenged us to go 'outside the box'. Dr. Bricken's lectures are very good!"

"I probably wouldn't have gotten anywhere were it not for Dr. Bricken. I must say that the course material did a great deal to tie up things I have seen elsewhere at SU and at work. I am extremely happy he turned out to be teaching. More than ever the work outside of class and his personal attention was a key benefit."

"New methods of programming - understand all different kinds of programming techniques. Teach us how to think in critical thinking."

"Dr. Bricken has consistently improved my vision of what I can do."

"The instructor was awesome. He did a fantastic job of presenting the data. I thoroughly enjoyed this course and instructor. My mind was stretched beyond what I could imagine. Professor Bricken did this via his teaching style. You get out of this class what you put into it - like life. Thanks for the experience."

Computer Ethics, Winter 2001 (11 students responding)

"It's an excellent class. Very well-organized and structured. Dr. Bricken is an inspiration! He has great personality and charisma, that counts towards good effective teaching. It has been a very rewarding experience."

"Excellent teaching style. Very good. Gave up-to-date information on the subject and ways to know more."

"This was by far one of the best courses I have taken. It satisfied many of my views, encouraged thinking and demonstrated there are many non-technical issues to be addressed as well."

NEGATIVE COMMENTS

Since negative comments stand out prominently, I will address *all* substantively negative comments within the last two years (in reverse chronological order).

SE500 Spring 2000

"A more applied/traditional data structures approach would prove more valuable to most students. Another concern is seeing the same material from CSE502, and again in programming methods. I do not feel that this class was worth the money spent for it."

"Due to the disparity in the students' experience level, it is difficult to accommodate all students with a single teaching formula. However, some inexperienced students complained about the lack of structure in the course. Perhaps some adjustments are in order to better direct such students."

"A few more traditional lectures and assignments on the fundamentals of the subject would be welcome."

SE500 Spring 1999

"Structured mandatory homework assignments"

DISCUSSION OF NEGATIVE COMMENTS

Within the last two years, the data structures and algorithms class was the
only one to receive negative commentary. There is somewhat of a mismatch
here between expectations. Specifically, many years ago this class was
remedial, for those students without an appropriate CS background. In 1996,
the faculty decided to move these classes to graduate content, expecting weak
students to catch up outside of class. However, the deeper issue is that, in
my professional opinion, the traditional content of a data structures class
is no longer relevant to the industry. Yes, students should know what a
linked list is, but three things dominate this subject matter:

    1) Most programming languages have elementary data structure
facilities built-in. This requires a higher level of abstraction than
elementary approaches.

    2) Programming theory has moved heavily into graph data structures
because of their generality and maintainability.

    3) The dominance of object-oriented programming has obsoleted even the
conceptual grounding of data structures and algorithms. This content belongs
to a particular type of structured programming, and does not reflect the
majority of modern language paradigms.

I have elected to teach data structures as a graduate subject, emphasizing
abstraction and program partitioning. This does not match the expectations
of the weaker students. The course does provide a clear option for self-
study (the text was particularly selected for this), but these students have
not yet learned to work without supervision. My belief is that rapid self-
learning is mandatory in our business, it is simply changing to fast to
expect stable knowledge. The students without basic skills should take an
undergraduate course.

As well, 4 other students (in two years) expressed a desire for more
structured teaching, and 5 requested more evaluative exercises. These
concerns are valid, however I believe that the essential difficulty is
students with broken expectations who were suddenly asked to think deeply.
This is not a simple rationalization. For my entire 16 years of teaching,
there have always be a small percentage of my students who find my techniques
disquieting. This is a small price to pay for the gains associated with an
adult, flexible classroom. Recently to address this concern, I have provided
a structured set of assignments in all classes.

The first comment is unique. It was unfortunate that this student was caught
with redundant content when I was in the process of building a new course,
and shifting content between the two. The redundant content was the most
difficult section of the course, and I felt comfortable at the time repeating
it, although only a few students experienced this. The others in the same

boat expressed satisfaction that they had an opportunity to review the difficult content. The above student is asking both for less content (in the name of other students) and more content (in the name of value for dollars). Somehow I expect that the issue here is more complex than dissatisfaction with the class content.

COMMENTARY ON LEARNING AND GRADING

1) Some students simply could not comprehend the idea of taking responsibility for their own learning. They insisted on being tested and graded. This was an easy fix: I provided three grading options (contract, normative, and negotiation). Those who wanted traditional assignments and grading have the option of choosing a normative approach. In each class, as appropriate, I provide a selection of gradable exercises for those who wish them. Statistically, this group is approximately 5% of my students (when my first year of classes at SU is not counted).

Frankly, grades in the MSE program are either A or B. This provides no useful discrimination tools, and the students generally know that grades are not too important, with two exceptions: 1) some gain self-respect from good grades, and 2) all must have a sufficiently high grade (usually A or B) in order for their employers to pay for their tuition. I alleviate the concerns of the latter group, and reserve the straight A grade for superior performance for the former group. In this way, the A grade must be earned by differential learning or productivity. As well, the A grade then stands as a mark of excellence in the classroom. (Although our registrar does not distinguish between A and A-, our students certainly do.)

2) Some students find it difficult to see the structure in my teaching approach. For my own satisfaction, I avoid giving the same lecture more than once. I find that when I do take packaged material into the classroom, my presentation becomes stagnant and unexciting. Thus I go into class prepared to teach a broad range of topics, following the interests and tides of the class and of myself. I have available at any time literally hundreds of relevant stories about the software industry, about future technologies, about the personalities and cultures of our business, about technical strengths and weaknesses, and about the quality and philosophy of life in general. Whenever the opportunity arises to tell a story, both I and the class relish it. In my opinion, this is the central content of graduate classes, sharing the realities of life and business in order to gain a deeper understand of one's own place and abilities.

Students with a strong expectation of a specific structure in the classroom get very confused at first. Only a very few fail to learn the new structure; these students usually have a rigid expectation and have yet to learn the dynamics of knowledge. Statistically, they account for 7% of my students,

with a strong overlap between this group and those with rigid evaluation expectations.

Above are positive comments from a selection of seven classes. The consistency and strength of these comments lead me to believe that not only am I achieving my personal teaching objectives, but that the students also share these goals.   Statistically, just over half of all students recorded specific positive comments about my teaching style.