



Yet (^5) another run
of SE course
OR
Which students'
feedback
we shall trust?

Putnik Z., Budimac Z.

Facts:

- During the school-year 2007/08, at the DMI in Novi Sad, a 1-semester undergraduate JCSE has been conducted for the fifth time
- As usual, we asked students to analyze our work, and fill in our standard questionnaire
- At the same time, our Faculty had to pass the “accreditation procedure”, which also included questionnaire about the lecturers



Facts:

- Course started with 87, ended with 81 students;
- Two groups of students belonging to two study directions were involved:
 - 66 students of “Computer Science” direction
 - 21 student of “Professor of Geography and Informatics” direction (6 of those decided to drop out)



Facts:

- As mentioned, there was 21 student of a *mixed direction* “Professor of Geography and Informatics”
- Those students:
 - have a lower background knowledge in CS,
 - have only about a 1/3 of CS exams in their curriculum
 - had a chance to *chose* exams on previous years, so even those CS exams that *were offered* to them, usually *are not* chosen.
- As a consequence – their grades were usually MUCH lower in previous runs of JCSE ...



Facts:

- This year, situation with the grades was – 7 assignments:
 - Out of possible 64 points
 - students of “Computer Science” direction, achieved **52** points on the average.
 - students of “Professor of Geography and Informatics” direction, achieved **32** points on the average.



Facts:

- This year, situation with the grades was – 4 tests:
 - Out of possible 60 points
 - students of “Computer Science” direction, achieved 29,5 points on the average.
 - students of “Professor of Geography and Informatics” direction, achieved 22 points on the average.
- We can notice that “on the average”, ALL students failed to pass!



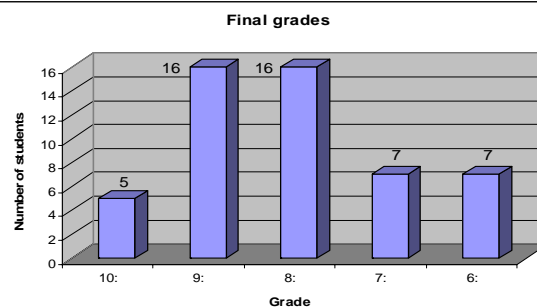
Facts:

- Still, considering tests - 19 students NEVER approached tests, deciding to take the exam on some other occasion.
- If we consider only those students who approached tests, results are as follows:
 - “Computer science” – 36,4 points on the average
 - Professors – 30,35 points on the average
- In other words, “on the average”, ALL of the students passed the exam.
- Again, in reality, they haven't 😞



Final marks:

- Total of 51 students (out of 81 enrolled), finished with a positive grade so far.
- The distribution of grades was the following:



Final marks:

- If we take a look at the results of “pure CS” students, here is what we got:

- Average number of students per test: 54
- Average number of students *passing* a test: 43
- (Average number of students *failing* a test: 11
- Average number of points gained at a test: 9.1



Final marks:

- So – if we draw a portrait of our average CS student, it would be something like this:

- (S)he gained 77% points for the assignments
- (S)he gained 57% points for the tests
- (S)he gained 25% bonus points
- Summing up all of the above, (s)he got mark 8.1



Surveys

- Our questionnaire was for the first time put on our LMS Moodle and filled by (only) 24 students.
- For the accreditation procedure, survey was answered by 26 students, so the results are comparable.
- Let us check the answers for some of the more similar questions in both surveys



Similarities

- For most of the questions, accreditation survey has four possible answers:
 - completely agree
 - partly agree
 - don't agree
 - can't estimate
- For “our” questionnaire, we used classi “Linkerton” scale from 1 (completely disagree) – 5 (completely agree).
- So, if we disregard “can't estimate” answer, results ARE comparable.



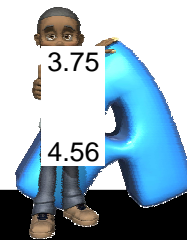
General questions about the course

	Accreditation survey	Our survey
• Lectures attendance:	3.61	2.75
• Pre-knowledge was enough	3.91	txt
• Free answers were mostly of the type: <ul style="list-style-type: none">– No special pre-knowledge needed, yet everything is useful.– All of the needed pre-knowledge was achieved in some other course throughout the studies.		
• Course is well-structured	3.64	3.83



General questions about the course

	Accreditation survey	Our survey
• Literature adequate:	3.8	txt
• Free answers were mostly of the type: <ul style="list-style-type: none">– There should be a specific book which follows the lectures.– It takes a lot of time to download lectures		
• Course content is interesting	2.92	3.75
• Course content is modern	3.48	3.75
• Course content is applicable	3.95	4.56



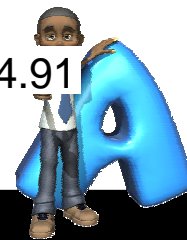
General questions about the course

	Accreditation survey	Our survey
• Lectures were interesting:	4.04	4.33
• Speed of lectures is too fast/to slow	3.00	2.33
• Amount of lectures	3.56	3.70/3.63
• Lectures and exercises harmonized	4.08	



Questions about the lecturer

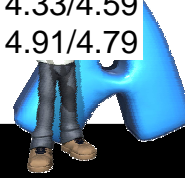
	Accreditation survey	Our survey
• Lectures were well prepared:	4.52	4.65
• Lecturer inspires engagement:	3.80	3.38
• Lecturer is willing to answer questions:	4.84	4.91



Global marks

Accreditation survey Our survey

- Global mark for the course 3.58 3.95
- Global mark for the lecturer/assistant 3.96/4.32
- Lecturer/Assistant was:
 - familiar with the contents 4.65/4.79
 - engaged 4.33/4.59
 - willing to answer questions 4.91/4.79



Additional questions

Accreditation survey

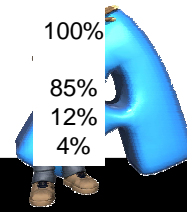
- Grade student expects:
 - 10 – 17%
 - 9 – 63%
 - 8 – 25%
 - 7 – 0%
 - 6 – 0%

Average 8.92
- Average grade student has:
 - 9-10 – 8%
 - 8-9 – 32%
 - 7-8 – 60%
 - 6-7 – 0%



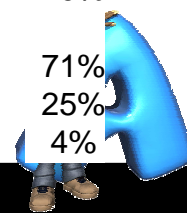
Usage of the equipment

Accreditation survey		
• Lecturer uses:	blackboard	12%
	computer	100%
	beam	100%
• Equipment is used	all the time	100%
• Equipment is adequate	agree	88%
	partly agree	12%
• Assistant uses:	blackboard	8%
	computer	100%
	beam	100%
• Equipment is used	all the time	100%
• Equipment is adequate	agree	85%
	partly agree	12%
	do not agree	4%



Relationship with students

Accreditation survey		
• Lecturer is fair:	agree	88%
	partly agree	12%
• Assistant is fair:	agree	85%
	partly agree	12%
	do not agree	4%
• Lecturer is objective:	agree	73%
	partly agree	19%
• Assistant is objective:	agree	71%
	partly agree	25%
	do not agree	4%



Rest of the questions from “our” survey

Our survey

- I have learned a lot of new things: 4.04
- It is important that course is internationally supported: 4.04
- Working in a team was valuable experience 4.04



Rest of the questions from “our” survey

Our survey

- Assignments were
 - too difficult - 5 /too easy - 1 2.70
 - motivating and encouraging (1 – disagree / 5 – agree) 3.20
 - would be easier alone (1 – disagree / 5 – agree) 1.78



Textual remarks

- Percentage of students wanting Serbian slides and those wanting English slides is equal!
 - Change from previous years, when more of them wanted Serbian slides.
- We had some constructive critics:
 - “The amount of lectures and assignments in the course was too much. This is mainly because the course was originally 2-terms long.”
 - “Too big for 1 semester”
 - “Need some time to adapt in the beginning of lecture”



Textual remarks

- We had some constructive remarks:
 - “Everything was fine.”
 - “Very interesting course. Different from other courses, and it should be obligatory for all CS students.”
 - “Good student-teacher relation. Students can be active and participate in discussions.”
 - “I like it, specially method of organization of theoretical part.”
- But also, on several occasions:
 - “There should be a specific book which follows the lectures.”



Textual remarks

- Considering assignments, we learned:
 - “There is too many assignments for just 1 semester.”
 - “I learned the light and dark side of working in teams.”
- But also:
 - “Assignments were mostly too simple.”
 - “I can’t see any use of team work, except for the speed of solving the assignments. It would be better if students are offered both options – working in teams and working alone, where those who decide to work alone should be given slightly easier tasks.”



Textual remarks

- And one specially important note:
 - “I hope this is not public, and that you will not misuse what I write ...
 - ... I’m writing this only so you can change something in team work organization, and no one have my experience in years to come...
 - Assignments 4 and 7 were given before new year, so *everyone was busy*, and I had to solve those alone.
 - For assignments 5 and 6:
 - one of the team members said that he is satisfied with his grades, so he doesn’t want to work anymore,
 - another one was ill,
 - the third one was busy.



Textual remarks

- And one specially important note:
 - I was not able to force anyone to work, threat or blackmail anyone. I could pretend I don't care, but honestly, I was ashamed to do that.
 - Two members of my team have the final grade same as me – 9, yet one of them have NO IDEA about the content of assignments 4 to 7.
 - I don't know HOW, but I think that team assignments should be reorganized somehow, so no one else have the same experience as I had this year.



Textual remarks

- Considering “the best” and “the worst” topics:
 - “Reverse engineering, it's very interesting topic and useful.”
 - “Functional testing: easy too understand way of testing.”
 - “The best topics were cost estimation, implementation, formal specifications, software metrics. These topics were generally interesting, and the corresponding assignments (if any) were highly "addictive"!”
 - “The OO topics (especially OOA) were not so interesting, but that's not because they are not important, but because they were the most difficult and longest lectures.”



Final remarks

- My favorite final remark:
 - I'm generally very satisfied with this course.
 - It taught me a lot of things that were previously unknown to me, but now everything makes sense (on a global level).
 - I understand it's significance and importance.
 - Also I've become very attached to it, and finally started to see my path and place in the future.



Difficult to compare

- Different years of study (different age)
- Different type of course (1 semester vs 1 week)
- Different background (CS / Polytechnic / Teachers of geography+CS)
- Different language (mother tongue vs non-native English)



Comparison

- Tirana master students “vs” Novi Sad regular students
 - II year master students
 - IV year regular students
 - I year master students
 - IV year “teachers”

