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ΕΡΕΥΝΗΤΙΚΗ ΕΡΓΑΣΙΑ

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Students do not consider all subjects to be equally relevant
A method for quantifying relevance; implications for curriculum timetabling, teaching and learning, and student assessment of teachers

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Οι φοιτητές δεν θεωρούν όλα τα διδασκόμενα μαθήματα σπουδαία και σχετικά με το επάγγελμά τους – συνέπειες στη διαμόρφωση του προγράμματος σπουδών, στη διδασκαλία και στη μάθηση, καθώς και στην αξιολόγηση των καθηγητών

Περίληψη στο τέλος του άρθρου

OBJECTIVE **Learning depends on the learners' perceptions about the relevance to them of what is to be learned. The aim of this study was to discover the perceptions of medical students of subject relevance, and to describe a method quantifying perceived relevance.** METHOD **An anonymous questionnaire was distributed to 413 medical students at the University of Ioannina, asking them to rank the importance of all core subjects. Median rank and first and third quartiles were calculated.** RESULTS **Of the students approached, 188 students (response 46%) ranked subjects from the most to the least important: Anatomy median 1 (first quartile 1, third 4), Physiology 2 (2, 5), Pathophysiology 4 (3, 5), Internal Medicine 4 (3, 6), Pathology 5 (4, 11), Surgery 7 (4, 9), Pharmacology 7 (6, 12), Nosology 8 (5, 13), Orthopedics 12 (9, 15), Pediatrics 12 (9, 16), Microbiology 12 (9, 18), Neurology 13 (10, 16), Biochemistry 13 (6, 22), Ophthalmology 15 (12, 18), Radiology 15 (10, 19), Obstetrics and Gynecology 6 (11, 20), Urology 16 (12, 18), Dermatology 17 (13, 20), Biology 19 (8, 22), Psychiatry 19 (13, 22), ENT 19 (16, 22), Forensic Medicine 21 (16, 24), Hygiene-Epidemiology 21 (16, 24), Medical Psychology 22 (17, 26), Chemistry 25 (21, 26), Medical Physics 26 (23, 27), Foreign Language 27 (22, 29), Biostatistics 27 (25, 29), History of Medicine 28 (26, 29), and Sociology 29 (27, 30).** CONCLUSIONS **The medical students perceived some subjects to be less relevant. Perceived relevance does not coincide with the curriculum or curriculum timetabling. Discordance may reduce student enthusiasm and confound students' assessments of their teachers. Students' perceptions should not be ignored.**

Key words

Learning depends not only on the degree of relevance of what is to be learned,[1] but also (or perhaps mainly) on learners' perceptions of how relevant the subject matter is. After all, they are the ones who have to learn and must find the motivation to do so. Progressively, the emphasis in medical education has shifted from a teacher-centred to a learner-centred approach that focuses on adapting the curriculum to the students' interests and needs.[2] However, it is not known whether curricula take into account student perceptions of relevance. We performed a study to discover our students' perceptions of the relative importance of all the core subjects taught in our medical school.

MATERIAL AND METHOD

We were commissioned by the Dean to conduct a study on students' opinions of a variety of questions. After two pilot studies, an anonymous questionnaire entitled "medical students' opinions about their science, their school, and their personal life" was distributed to all students at the Ioannina University Medical School, Greece. In year 3 the questionnaires were distributed by a teacher (ID) at the beginning of a tutorial and collected at the end. In all other years they were distributed by research assistants (PS, GS) during a lecture and students were asked to return it the next day; if they failed to do so, they were given a verbal reminder. One question presented alphabetically all thirty core subjects of the School and students were asked to rank them in

descending order of importance. Median rank and quartiles (first, third) were calculated, because the distributions deviated from normal. Gender and year of study (preclinical 1–2, transitional 3, clinical 4–6) subgroups were also analyzed.

Several specific questions were also asked: "In your opinion, which of the existing subjects should not be included and what subjects should be added to the curriculum?", "do you think Philosophy, Health Economy, Ecology and Environmental management, Morals and Ethics, and Counselling should be in your curriculum?", "are there any subjects that should be moved to another semester?".

RESULTS

One hundred eighty eight students replied (46% of the students who received a questionnaire, n=413; 28% of the total number of students in the school, n=671). There were 86 male and 83 female respondents; 19 respondents did not declare their gender. This reflected the overall gender ratio in the school (336 male, 335 female). There were 45 preclinical, 88 transitional, and 58 clinical respondents, which did not reflect the ratio of the number of students in the different phases of the curriculum (219:122:330).

Respondents ranked all core subjects from 1 to 30. Some subjects were consistently highly ranked, with almost no respondents ranking them below 20: Anatomy, Physiology, Pathophysiology, Internal Medicine, Pathology. Other subjects were consistently ranked poorly, with almost none ranking in the top 10: Medical Sociology, History of Medicine, Biostatistics, Foreign Language, Medical Physics. The table 1 describes the rankings in more detail.

On top of the table are all thirty subjects ordered according to their median rank; on the left are all the possible rankings 1 to 30. For example, of the 162 students who included Anatomy in their ranking (86% of respondents; last two lines), more than half (86/162: 53%) ranked it first, 17 (11%) second, 11 (7%) third etc, and only one ranked it lower than twentieth (twenty-third). Of the 162 (86%) students who included Physiology in their ranking, 27 ranked it first (17%), 62 (38%) second, 15 (9%) third etc, and only two ranked it below twentieth (both twenty-second). At the other end of the scale, of the 157 (84%) students who ranked Medical Sociology, only one ranked it first, and more than one third (55/157: 35%) ranked it last (thirtieth), 27 (17%) ranked it twenty-ninth, 32 (20%) ranked it twenty-eighth etc, while only two ranked it higher than twelfth (eighth and first, respectively). Of the 156 (83%) students who ranked History of Medicine, 29 ranked it last (19% out of 156), 41 (26%) twenty-ninth, 30 (19%) twenty-eighth etc, and only two ranked it higher than twelfth (third and first, respectively).

Figure 1 presents the median rank and first and third quartiles (Q1, Q3) for each subject. For example, Anatomy's median rank was 1, its Q1 was 1, and its Q3 was 4. On the other end of the scale, Medical Sociology had a median rank of 29, Q1 27, and Q3 30. Radiology's rankings were in the middle: Median 15, Q1 10, and Q3 19. The highest as well as the lowest ranked subjects were less spread (had smaller inter-quartile ranges, IQR=Q3−Q1), while those ranked in between were more spread (had a greater IQR). As expected from the table, Biochemistry and Biology (in general bimodals, see below) had the greatest spread (the more the bimodality, the greater the IQR).

Other characteristics of the table are:

It seems to be "divided" into three parts: The top-left to bottom-right diagonal where the median ranks lie, the bottom-left triangle representing subjects with few low preferences, and the top-right triangle representing subjects with few high preferences.

The subject frequency distributions begin skewed towards the right (Anatomy; reverse J shape) and end skewed towards the left (Medical Sociology; J shape). Figure 1, showing six subjects from the spectrum "most important to least important", clarifies this. Anatomy is skewed towards the right, has a reverse J shape, shows an exponential decrease, it is ranked first, with most students considering it the most important subject (it has almost only "fanatic friends"). On the other utmost, Sociology is Anatomy's mirror: skewed towards the left, J shaped, with an exponential increase, it is ranked last, with most students considering it the least important (it has almost "zealous enemies"). Pharmacology and Forensic Medicine, ranked 7th and 22nd, were skewed towards the right and the left, respectively, but some considered them as less or more important than other subjects (they have more friends than enemies and more enemies than friends, respectively). In the middle, Urology has a "typical" bell shape (normal) distribution with as many enemies as friends. Finally, Biochemistry has two modes, one around six (zealous friends) and another around 23 (fanatic enemies).

The subjects seem to be grouped into three parts; the first and third are unimodal but skewed towards the right and left, respectively, while the second is either unimodal and normal (Orthopedics, Neurology, Ophthalmology, Obstetrics and Gynecology, Urology, Dermatology) or bimodal (Microbiology, Radiology, Biology, Biochemistry) with the most exaggerated examples being Biology (11% ranked it third to fourth and 48% ranked it nineteenth to twenty-fifth, while fewer students put it in between) and especially Biochemistry (37% ranked it second to eighth

Table 1. Subject rank frequency distribution.

Rank	Anatomy	Physiology	Pathophysiology	Internal Medicine	Pathology	Surgery	Pharmacology	Nosology	Orthopedics	Pediatrics	Microbiology	Neurology	Biochemistry	Ophthalmology	Radiology	Obstetrics and Gynecology	Urology	Dermatology	Biology	Psychiatry	ENT (ORL)	Forensic Medicine	Hygiene and Epidemiology	Medical Psychology	Chemistry	Medical Physics	Foreign Language	Biostatistics	History of Medicine	Medical Sociology
1	86	27	14	25	3	11	4	4	2	4	3	3	3	2	2	2	2	2	5	3	2	2	1	1	1	1	1	–	1	1
2	17	62	21	14	11	17	3	3	1	2	1	2	9	1	1	1	1	1	3	–	2	2	1	1	1	3	–	1	–	–
3	11	15	36	27	17	7	4	10	1	4	1	–	9	1	–	2	–	–	11	1	–	–	–	–	1	–	1	1	1	–
4	15	10	25	16	30	8	15	9	1	–	1	4	5	–	2	3	–	–	6	1	–	–	1	1	4	–	–	–	1	–
5	11	9	25	21	15	13	8	20	3	4	1	1	9	3	–	1	–	1	4	2	2	2	–	2	–	1	1	1	–	–
6	3	8	9	20	11	13	18	16	6	2	6	3	7	2	3	2	3	2	4	2	1	1	2	2	2	3	–	1	1	–
7	–	3	6	8	7	20	28	11	4	7	7	7	8	3	4	4	2	2	6	3	–	1	1	3	4	2	1	1	–	1
8	2	1	6	5	6	20	10	12	10	9	10	3	10	3	8	5	3	–	7	2	2	3	4	1	2	2	4	–	–	–
9	2	1	3	1	9	12	11	7	12	6	17	14	4	4	9	4	11	3	5	1	1	1	8	2	3	1	–	–	–	–
10	2	1	3	6	4	5	5	11	12	13	15	11	4	7	9	5	3	3	7	5	2	3	4	2	3	–	5	–	–	–
11	2	2	–	3	5	1	4	4	14	14	10	11	3	7	9	11	8	8	1	7	4	5	4	4	–	3	–	4	2	1
12	1	2	2	2	6	6	7	5	10	15	9	12	4	10	8	7	7	9	3	5	3	2	3	5	2	2	1	–	–	2
13	3	3	1	2	3	2	7	6	15	11	7	11	4	11	10	7	8	10	1	9	1	5	2	4	–	1	2	2	1	–
14	–	3	1	1	2	3	9	7	14	8	10	9	5	13	5	10	12	11	3	2	9	4	4	–	–	1	1	–	1	–
15	–	5	2	–	4	3	6	4	14	10	1	16	–	9	9	10	14	8	2	8	7	6	1	3	1	–	2	2	–	–
16	–	3	–	–	3	–	2	3	14	6	9	10	1	13	4	8	11	13	4	9	8	6	6	6	2	1	4	–	–	1
17	2	–	–	2	2	1	2	2	3	7	4	10	4	15	8	8	23	9	5	4	12	2	4	9	1	2	4	–	2	–
18	1	1	–	–	2	2	2	2	2	9	11	9	4	14	8	16	8	12	2	9	13	5	6	2	3	–	3	–	2	2
19	2	2	1	1	1	3	2	4	2	7	3	3	4	9	16	4	11	16	6	9	11	10	8	5	3	4	8	1	–	2
20	1	–	–	–	–	1	5	5	2	4	8	4	8	4	3	11	3	10	10	11	10	12	10	11	4	3	10	1	–	1
21	–	2	1	–	3	2	1	1	3	2	3	3	12	6	6	5	4	4	11	13	18	12	17	4	6	5	7	2	2	–
22	–	–	–	–	1	–	1	3	1	2	3	–	14	4	9	5	8	9	16	14	10	12	9	11	7	6	6	1	5	4
23	–	–	–	–	2	1	–	1	3	1	5	1	7	2	6	3	3	5	15	6	11	13	13	14	6	11	18	6	14	9
24	1	–	–	–	–	–	–	2	1	1	–	–	7	1	3	3	–	3	13	9	10	15	11	13	15	16	17	6	12	7
25	–	–	–	–	–	–	–	1	–	–	–	1	3	1	1	6	2	4	6	6	2	9	9	7	25	37	23	14	15	14
26	–	–	–	–	2	1	–	–	–	–	–	1	2	–	1	2	2	1	–	4	4	9	5	12	22	22	24	19	30	32
27	–	–	–	–	–	–	1	–	–	–	2	–	1	2	–	2	1	2	2	1	2	6	7	8	20	9	–	25	41	27
28	–	–	–	–	1	–	–	–	–	–	1	–	–	1	1	–	–	1	1	3	2	2	7	12	6	12	–	22	29	55
29	–	–	1	–	–	–	–	1	–	–	–	1	1	–	2	1	–	–	1	–	–	–	4	8	5	2	–	20	–	–
30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1	2	–	1	3	6	–	–	26	–	–
Sum	162	162	157	156	151	152	155	152	150	150	151	150	156	149	148	148	150	149	160	149	150	150	153	155	155	152	152	155	156	157
%188	86	86	84	83	80	81	82	81	80	80	80	80	83	79	79	79	80	79	85	79	80	80	81	82	82	81	81	82	83	84

Sum: Participants who ranked corresponding subjects
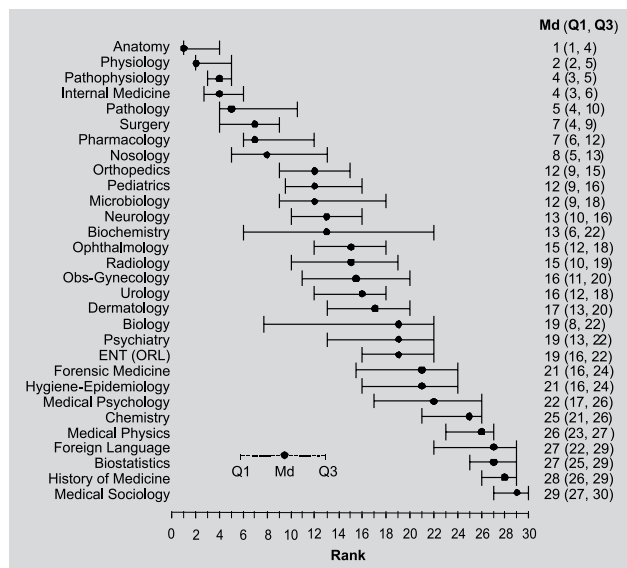%188: 100 sum/188
"–": Frequency=0

Figure 1. Median ranks and first and third quartiles (Q1, Q3) for all subjects, sorted from the first (Anatomy) to the last rank (Medical Sociology).

and 31% twenty-first to twenty-fifth, while only 26% put it ninth to twentieth, and 0% ranked it fifteenth) (fig. 2). In general, the first part includes core medicine, the second includes medical specialties if unimodal and core biomedical subjects if bimodal, and the third includes the "irrelevants".

According to gender and year of study, Anatomy and Physiology were ranked first and second by all students, both male or female, preclinical, transitional, and clinical. Pathophysiology, Internal Medicine, and Pathology completed the top five. On the other end of the spectrum, Medical Sociology, History of Medicine, Biostatistics, Foreign Language, and Medical Physics were considered the
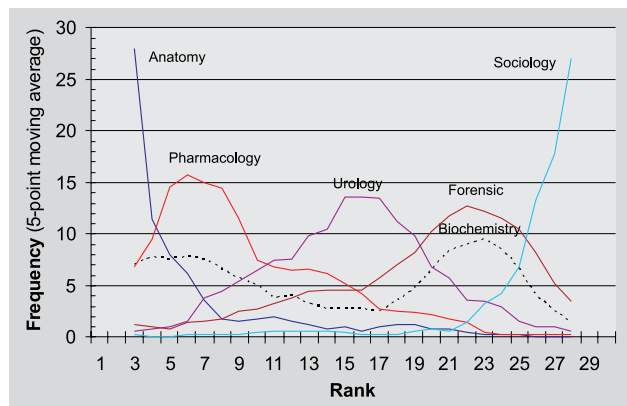
most irrelevant, irrespective of students' gender or year of study. In general, no important ranking differences found according to gender or year of study.

Of the 130 students (69% of 188) who replied to the question about what subjects should not be in the curriculum, 64% (83/130) listed Medical Sociology, 38% Biostatistics, 35% History of Medicine, 25% Chemistry, 24% Physics, 18% Foreign Language, and 17% Psychology. This is compatible with the table.

Of the 80 (43% of the 188) who answered the question what subjects currently not in the curriculum should be in the curriculum, almost half (45%, 36/80) said First Aid, 19% Informatics, 11% Morals Ethics and Law, 9% Preventive Medicine, and 8% Patient Approach. Other proposals included dietetics/nutrition, health economy, nursing, dentistry, and philosophy.

Of the 177 (94% of the 188) who answered the question of whether Philosophy should be in their curriculum, 58% said no, 38% optional, and 3% core. Of the 177 (94%) who answered for Health Economy, 32% said no, 54% optional, and 14% core. Of the 175 (93%) who answered for Ecology and Environmental Management, 38% said no, 55% optional, and 7% core. Of the 181 (96%) who answered for Morals and Ethics, 13% said no, 41% optional, and 46% core. Of the 171 (91%) who answered for Counselling, 19% said no, 60% optional, and 21% core.

Finally, while only one in five preclinical students (20%) commented on which subjects should be moved to different semesters, one in three clinical students (35%) did so. The most common proposal (17/45: 38%) was for Pharmacology to be moved from the preclinical to the clinical semesters, and History of Medicine (7/45: 16%) and Medical Physics (4/45: 9%) to go even earlier (to the first semester from fourth and second, respectively).

DISCUSSION

Ioannina University medical students considered some of their core subjects to be the most important (Anatomy, Physiology, Pathophysiology, Internal Medicine, Pathology) and others the least important (Medical Sociology, History of Medicine, Biostatistics, Foreign Language, Medical Physics). These perceptions were similar for both genders and all years of study. The least important subjects should, students wrote in the open question, not be in their curriculum, while some subjects that were not taught (First Aid, Medical Informatics, Morals and Ethics) should be brought in. Students also seemed to feel that Pharmacology should be taught later, in the clinical phase of their curriculum.

Figure 2. The frequency distribution of the perceived ranks for six subjects, from the most important (Anatomy) towards the least important (Medical Sociology).

What is the message here? Does our curriculum coincide with or contradict students' perceptions of what is important? How could these perceptions influence students' rating of their faculty?

Our students' overall ranking does not coincide with what comes first or second in our curriculum timetable. What we teach in the first (preclinical) semesters is what students perceive as less relevant, which means they have a long wait before they come in contact with the subjects they perceive as important. After passing tight admission examinations (the hardest and biggest leap towards becoming medical doctor in Greece), we think that nothing else could evaporate enthusiasm and cause boredom, perhaps even burnout, than this sort of discrepancy between expectations and experience. Perhaps this is why we anecdotally feel that our students seem to contradict the ancient Greek wisdom *πάντες άνθρωποι του ειδέναι ορέγονται φύσει* (human beings, by their nature, covet [desire] to learn; Aristotle).[3] Anybody can be forced to undergo teaching, but nobody can be forced to learn; learning is an inner procedure (i.e. covet). Students came to medical school to become doctors, to deal with patients; however, they start their studies confronted with such –in their opinion– irrelevant and unimportant subjects as Sociology, History, Mathematics, Foreign Languages, Physics, and Chemistry. Our curriculum, therefore, is not student-centred.[2]

Since the study was performed, Medical Sociology has been withdrawn from the curriculum, and History of Medicine and Biostatistics are under pressure. For example, in the School's general assembly, the opinion was voiced that Biostatistics should be amalgamated with Epidemiology, which itself was rated as the eighth least important subject. Should these subjects get reduced teaching time or even be excluded from our curriculum? Or should they be taught later when their importance is more likely to be appreciated? As one student nearing graduation said, having realized the importance of Biostatistics for practicing doctors, "you are wasting your subject, having it in the first semester!".

We think that the major implication of this research is the necessity to adapt the curriculum to students' perceived needs. Otherwise, we risk vaporizing our students' enthusiasm for becoming doctors and thus their covetousness for learning. Our curriculum violates most of the CRISIS criteria of effective learning (convenience, relevance, individualization, self-assessment, independent learning, and systematic approach).[1] We acknowledge that these were developed for effective continuing education, that undergraduate and postgraduate education are different things, and that the participants in undergraduate and postgraduate education are different, but we think that by and large these criteria do apply to undergraduate education. We believe they should not be violated, especially in the era of the educational philosophy "just-for-you learning" (learning customized to the content, educational strategy, and distribution needs of the individual learner).[4]

We have also asked the same students through the same questionnaire to mark their teachers using the familiar 0 to 10 scale and give their marking criteria, provided they had personal experience of the teacher they were assessing.[5] Their marking criteria were, from the most to the least important, instructional ability, personality, expertise, fairness, and –last– research activity. This work did not correlated marks with students' own perceptions of the importance or relevance of the subjects being taught. Although an interested tutor or expert teacher can motivate the students to like the subject they teach, even if it is not perceived relevant (and a poor teacher could reduce enthusiasm for an important subject), perceived relevance could be a confounder of students' opinions of their teachers. This hypothesis, however, remains to be proven.

Limitations

The small response rate and lack of representativeness of the year of study are limitations of this study. They were the outcomes of at least two factors: the distribution/collection procedure (no protected time except for year 3) and the lengthiness of the whole questionnaire (20 pages). We cannot exclude the possibility that the students who did not respond may somehow have been different from those who did; however, had all students replied, we think that rankings would have been similar and that the reported rankings represent our students' "wisdom of the crowds".[6] More importantly, while it may appear to be reasonable to believe that these rankings are not generalizable to medical schools the world over, to all Greek medical schools, or even to our School in different years, this is not the case. We have identified student rankings of subjects according to their perceived importance and this is the case. Our findings indicate that students do rank subjects, and that students' rankings and our curriculum contradict each other. Student ranking and curriculum adaptation taking into account this ranking is generalizable. All students all over the world have opinions –conscious or unconscious, explicit or otherwise– about the relevance of what they are being asked to learn. Our case is a specific example of a general principle.

Of course students may not understand the bigger picture of the curriculum and what will be important during their medical careers, and they may not be able to make appropriate judgements about the value of different curricular components. Such criticism raises the question of whether the teachers understand the bigger picture better than their students do, but the answer is beyond the scope of this study. Concentrating on students, they do rank subjects and this is the reality. This is their picture and nobody can force anybody to learn anything they perceive as non-important and non-relevant. Unfortunately, we (only we?) do exactly this. We teach Statistics, for example, in the first semester, but students rate it as irrelevant. Should we teach it in the fifth year, when students might have come to appreciate its importance? Yes we should do, we think. We must do. After all it is all about their learning, not ours. Not even our teaching; it is not about teaching, it is about learning: they will become doctors.

We have suggested that the perceived importance of a subject could confound student evaluations of teachers.[5] The opposite could also be true: The quality of the teaching may affect perceptions of the importance of the subject. We believe that such an influence would not be large enough to significantly alter perceived importance, but it might explain some of the variance in rankings that we identified between students.

Finally, we chose for the questionnaire the word "importance" because we believed it was readily comprehensible. Perhaps "importance" and "relevance" are not completely interchangeable, but we think that "importance" is the best proxy of "relevance". We also believe that the statistical procedures used to quantify and present relevance are the appropriate.

In conclusion, medical students perceive some subjects as more relevant than others. Their rankings may not coincide with curriculum timetabling, and this may affect their enthusiasm for learning. Furthermore, student perceptions of subject importance may confound their assessments of their teachers. As learning depends on the relevance of what is to be learned, and since the emphasis is progressively given on learner-centred approaches whereby students are not forced to adapt to the curriculum but the curriculum incorporates their perceived interests and needs, students' perceptions of the relative importance of their subjects cannot be ignored when timetabling the curriculum or asking students to assess their teachers.

"How could curricula best be adapted to take into account the relevance, as assessed by students, of the subjects offered" and "is student-perceived subject importance a confounder when assessing their teachers" are questions for further research.

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AUTHORS' CONTRIBUTION

ID perceived the study, performed the analyses, produced the table and the figures and commented extensively on drafting. ID, PS and GS designed, distributed and collected the questionnaire. PS, SG, XT and AS verified electronic data against original questionnaires. XT wrote the first draft and all authors contributed to draft improving. All authors have read and approved the final draft.

CONFLICT OF INTEREST

There is no conflict of interest other than the strong interest for education improvement.

ΠΕΡΙΛΗΨΗ

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ΣΚΟΠΟΣ Πάντες άνθρωποι του ειδέναι ορέγονται φύσει, δίδαξε ο Αριστοτέλης. Δεν μπορείς να φας ένα φαγητό που δεν σου αρέσει· μπορείς βέβαια να εξαναγκαστείς να το κάνεις, παρ' ότι ενδέχεται να το κάνεις μέχρι και εμετό. Το

ειδέναι, η μάθηση, είναι χαρά και απόλαυση αν συμπίπτει με την αντίληψη του μαθητή για το πόσο σπουδαίο είναι αυτό που πρόκειται να μάθει. Αν είναι άσχετο, αν είναι ασήμαντο, αν δεν είναι ενδιαφέρον, τότε ο άνθρωπος του ειδέναι ανόρεκτος φύσει: η μάθηση από χαρά μετατρέπεται σε βάσανο. Μπορείς να υποχρεώσεις κάποιον να διδαχθεί, δεν μπορείς να τον υποχρεώσεις να μάθει: απλά θα τον εξαναγκάσεις να «περάσει τις εξετάσεις». Υποχρεώνουμε τους φοιτητές μας να διδαχθούν αντικείμενα που είναι ανόρεκτοι να μάθουν; οπότε η φυσική αντίδραση του εγκεφάλου τους είναι να «περνούν εξετάσεις»; (ή να αντιγράφουν). Σκοπός της παρούσας εργασίας ήταν η σχετική διερεύνηση. Θεωρούν οι φοιτητές μας ότι τα μαθήματα της σχολής τους είναι σπουδαία και σχετικά με το επάγγελμα που διάλεξαν; Θα περιγραφεί μια μέθοδος ποσοτικής εκτίμησης της συγκεκριμένης πίστης. **ΥΛΙΚΟ-ΜΕΘΟΔΟΣ** Ανώνυμο ερωτηματολόγιο μοιράστηκε σε 413 φοιτητές της Ιατρικής Σχολής Ιωαννίνων, ζητώντας τους να ιεραρχήσουν με σειρά σπουδαιότητας τα μαθήματα κορμού της σχολής τους, κατά την αντίληψή τους, από το περισσότερο έως το λιγότερο σχετικό και σπουδαίο. **ΑΠΟΤΕΛΕΣΜΑΤΑ** 188 φοιτητές τα ιεράρχησαν ως εξής: Ανατομία διάμεση σειρά 1 (πρώτο τεταρτημόριο 1, τρίτο 4), Φυσιολογία 2 (2, 5), Παθοφυσιολογία 4 (3, 5), Παθολογία 4 (3, 6), Παθολογική Ανατομία 5 (4, 11), Χειρουργική 7 (4, 9), Φαρμακολογία 7 (6, 12), Νοσολογία 8 (5, 13), Ορθοπαιδική 12 (9, 15), Παιδιατρική 12 (9, 16), Μικροβιολογία 12 (9, 18), Νευρολογία 13 (10, 16), Βιοχημεία 13 (6, 22), Οφθαλμολογία 15 (12, 18), Ακτινολογία 15 (10, 19), Μαιευτική-Γυναικολογία 6 (11, 20), Ουρολογία 16 (12, 18), Δερματολογία 17 (13, 20), Βιολογία 19 (8, 22), Ψυχιατρική 19 (13, 22), Ωτορινολαρυγγολογία 19 (16, 22), Ιατροδικαστική 21 (16, 24), Υγιεινή-Επιδημιολογία 21 (16, 24), Ιατρική Ψυχολογία 22 (17, 26), Χημεία 25 (21, 26), Ιατρική Φυσική 26 (23, 27), Ξένη Γλώσσα 27 (22, 29), Βιοστατιστική 27 (25, 29), Ιστορία Ιατρικής 28 (26, 29), Κοινωνιολογία 29 (27, 30). **ΣΥΜΠΕΡΑΣΜΑΤΑ** Οι φοιτητές αντιλαμβάνονταν ορισμένα γνωστικά αντικείμενα ως λιγότερο σπουδαία και σχετικά. Στην πρώτη περίπου δεκάδα ιεράρχησαν τα αντικείμενα που θεωρούνται η καρδιά της Ιατρικής, στη δεύτερη τα αντικείμενα ειδικοτήτων και στην τρίτη τα «άσχετα», διάταξη που δεν είναι πιθανό ότι θα άλλαζε αν το δείγμα ήταν αντιπροσωπευτικό. Το πρόγραμμα σπουδών δεν λαμβάνει υπ' όψη αυτές τις αντιλήψεις τους: τους υποχρεώνει να αρχίσουν τις σπουδές τους από «άσχετα πράγματα»: να υποστούν (έτσι βιώνεται) τη διδασκαλία τους. Ακόμη κι αν οι αντιλήψεις αυτές είναι λαθεμένες, η ασυμβατότητα πεποιθήσεων και προγράμματος καταστρέφει το σπουδαιότερο απ' όλα: Τον ενθουσιασμό του φοιτητή να μάθει. Δευτερογενώς, ενδέχεται να αποτελεί και συγχυτικό παράγοντα στην εκ μέρους του αξιολόγηση των καθηγητών του. Οι πρότερες αντιλήψεις των φοιτητών δεν μπορεί να αγνοούνται, αλλά να αποτελούν εφαλτήριο βελτίωσης της εκπαίδευσής τους.

Λέξεις ευρετηρίου: Αξιολόγηση καθηγητών, Διδασκαλία και μάθηση, Ιατρική εκπαίδευση, Πρόγραμμα σπουδών, Σχετικότητα/σπουδαιότητα/κατάταξη των μαθημάτων, Ιωάννινα, Ελλάδα

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