









# Workshops of the Pedagogic Week 2021 of Centro Universitário FMABC

Sergio Baldassin<sup>1</sup> , David Feder<sup>2</sup> , Silvia Oliveira<sup>3</sup> , Ana Carolina Mota Ortiz<sup>4</sup> , Ana Júlia Fernandes Abdala Nicolau<sup>4</sup> , Gabriela de Nardi<sup>5</sup> , Júlia Silva<sup>5</sup> , Mario Paulo Faro Junior<sup>4</sup> 

<sup>1</sup>Departamento de Neurociências, Centro Universitário FMABC (FMABC) – Santo André (SP), Brazil

<sup>2</sup>Disciplina de Farmacologia do Centro Universitário FMABC (FMABC) – Santo André (SP), Brazil

<sup>3</sup>Disciplina de Histologia do Centro Universitário FMABC (FMABC) – Santo André (SP), Brazil

<sup>4</sup>Curso de Medicina do Centro Universitário FMABC (FMABC) – Santo André (SP), Brazil

<sup>5</sup>Diretório Acadêmico Nylceo Marques de Castro, Curso de Medicina do Centro Universitário FMABC (FMABC) – Santo André (SP), Brazil

## ABSTRACT

**Introduction:** Delivering quality medical education is a hot topic. The current discussion essentially addresses content versus competencies. Extensive curricula and matrices, and traditional assessments are against go against the modern concepts of medical education. Remote education stimulated this discussion and brought the opportunity to review the academic load and assessment. **Report:** In January 2021, a pedagogic workshop of the Medicine course of Centro Universitário FMABC was held. It began with a lecture by a visiting professor and coordinator of the medical school accreditation system on remote activities during the pandemic. Next, the person responsible for the Progress Test made a history of the latest assessments, and a professor who is a member of the Accreditation Committee of the Medical Schools presented a summary of the main insufficient points of the last assessment. Afterward, the students presented the last internal evaluations. Finally, the matrices of the course, from the 1st to the 4th year, were presented and compared with those of three other medical schools, and each year coordinator prepared their suggestions for changes to the matrices. Lastly, students, professors, and the course coordination presented a report and proposals, encouraging the integration of the academic community, the reassessment of teaching plans, repetition of content, and recognition of matrices of each year, offering ideas and tools, to reflection on remote learning, and opportunities for change and improvement in teaching, and learning. **Conclusion:** The disciplines showed willingness for integrative activities, extension, and creation of elective disciplines, complementing failures caused by the Pandemic.

**Keywords:** education, medical; education, distance; competency-based, education; teaching; pandemics.

## INTRODUCTION

The delivery of quality medical education and assessment has been a simmering topic since World War II, and the contending argument is essentially one of content versus competencies. The clash has gained momentum in the last two decades with the creation of the EPA (Entrustable Professional Activities), which is supposed to bridge the gap between design and practice. And the perception that only the training time criterion, of

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Corresponding author: Sergio Baldassin - Department of Neuroscience, Centro Universitário FMABC – Santo André (SP), Brazil - E-mail: [sergio.baldassin@fmabc.net](mailto:sergio.baldassin@fmabc.net)

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six years for graduation and two or more years for residency, was no longer sufficient or as efficient and reliable<sup>1</sup>. In Brazil, the competencies are addressed by the National Curriculum Guidelines of 2001 and 2014<sup>2</sup>.

At the international level, the CanMeds<sup>3</sup> and the World Federation for Medical Education (WFME) have been dealing with this task with relevant productions and guidelines. The Medical Course, inclusive, is internationally accredited by the WFME since 2019 since the Brazilian accreditation was recognized by the Brazilian School Accreditation System, the Brazilian medical school accreditation system (SAEME- CFM), of the Federal Council of Medicine and that evaluated us in person in 2017 and remotely in 2020.

With the pandemic to COVID-19, all these institutions mobilized for the challenges of remote e-learning. And with the distancing and closing of essential practical activities, except those of the internship, caused by SARS-CoV-2, new challenges arose in our institution with the beginning of remote electronic learning, still confused by some with distance learning (DL). With this, the concept of Distributed Electronic Learning, initially designed in Europe and the United States to improve access for disadvantaged populations, is also being taken up.

But although it is not possible for a good part of the health sciences, either because of the inherent needs of the practical activity or because of the non-recognition of regulatory bodies, the virtual and remote delivery of knowledge provoked great opportunities for new discussions of what was possible with activities now called synchronous and asynchronous.

The failures and omissions of educators, disciplines, and even courses have also become clear. What was bad has gotten worse. And the educational work now definitely has to be collaborative and, even so, with major failures and repercussions<sup>4</sup> to be managed for years from elementary school to university.

Some shortcomings were pointed out in local polls and some disciplines were noted for their inability to use the new instruments. However, most felt invigorated by discovering new tools for delivering and assessing knowledge. And most improved. A few insist that medicine is an art to be shared only in person, and refuse to teach or put up all kinds of obstacles.

In the midst of all this, a great deal of stress has taken over society. In the academy it was no different, as students and professors were overwhelmed with bureaucratic procedures, confusing ministerial edicts, fear of acting by charging knowledge, attacked by the exaggerated use of the concept of harassment, for example, alleged by students and even professors who refused to open their cameras, arguing possible bullying, etc. As said before, what was already bad got worse. And all sorts of opportunism arose, with cheating, plagiarism, and political activism, especially from those with a diminished sense of academic ability.

But in any case, many of the changes are here to stay. In informal polls or in petit comité conversations some students have said that they are being listened to more by teachers, teachers feel that students, especially boarders, are more rested, many have turned more toward their families and even lost overweight as they have started to eat more regularly and healthily.

In contrast, the depressive and anxious symptoms that are already pronounced among medical students<sup>5</sup>, of course, have worsened. Everyone is stressed, and teachers are especially overloaded.

## REPORT

At the end of 2020 and the request of the Medicine Course Coordinator, we designed a project for a pedagogical week that would make a difference in an objective and useful way for everyone. Thus, in January 2021, and after several brief communications, including slides with few and clear information that were sent to teachers clarifying objectives and operation of the Workshops, it was defined that they should: 1) Encourage faculty and students to know the course pedagogical project (PPC) and the Medicine Course Matrices, 2) Offer an overview of internal and external evaluations to FMABC, 3) Update on the needs for pedagogical improvement and reaccreditation of FMABC, 4) Know the evidence collected on repetitions and time use in the construction of FMABC matrices, 5) Reflect on the experiences of Medicine Students and Professors in the midst of the COVID-19 pandemic, 6) Analyze contemporary models of medical teaching and restructured after the SARS-Cov-2 Pandemic, 7) Stimulate joint work of Disciplines and Departments, 8) Know the synthesis of the results of the historical series of the Progress Test in the last years, 9) Know the synthesis of the results of the historical series of the 1st and 2nd years Student Forum, 10) Objective and collective construction of teaching plans by the Disciplines of each Year of the Medicine Course.

In summary, the week is designed to consist of objective and concise lectures on assessments, followed by moments of discussion and joint construction of the teaching plans and schedules for all subjects from the 1st to the 4th years of the 2021 Medical School.

The resources used were virtual rooms on Google Meet<sup>®</sup> in continuous programming with the capacity for chats and PowerPoint slide shows<sup>®</sup>. The face-to-face activities were transmitted during the Workshops in four rooms with the necessary distance and care implemented by the Infection Control Commission (ICC), and with at least one teacher representative from each subject and a Student Representative from 2020, armed with spreadsheets prepared by the Year Coordinators, containing all the themes of the classes of each year, from 1st to 4th grade, grouped by descriptors, where it is clear which themes can be approached together or repeated in a pedagogically built form beforehand.

Our intended product would be the delivery of the completed standardized Teaching Plans for 2021 after the presentations and discussions of the results of the internal and external evaluations presented by the workshop participants.

In practice were: the opening by the Coordinator of the Medicine Course of FMABC; a lecture by an educator about the teaching commitment in a time of pandemic; a block with professors describing external evaluations of our institution by the Progress Test and by the federal system of Accreditation, the SAEME; followed by a Block I presenting internal evaluations with students describing actions and results of the internal Forum evaluations. There was also a presentation of the current 1st, 2nd, 3rd, and 4th-grade Matrices, comparing them with those of three other well-known and well-evaluated schools in the State of São Paulo.

Finally, teachers and students from the 1st to the 4th year were invited to hold workshops to 1) promote the integration of themes, especially the so-called “repeated” ones, by disciplines of the Medicine Course and by other courses of the University Center, 2) stimulate the creation of extension programs or activities, and 3) create elective recovery or reinforcement disciplines.

In general, the stimulus of the pedagogical week was enough for the disciplines to show interest in integrating or to offer themselves if invited by other disciplines. Only one discipline stated that it saw no purpose in integrating. And one subject said that it would withdraw from the 2nd Year Matrix, already overloaded with seventeen subjects and that it would share its classes with the others.

Soon after, other disciplines already offered proposals, and invitations, or made themselves available to integrate (Tables 1 and 2). And immediately after the end of the workshops, the participating students already registered the fact in the pedagogical week memories and prepared a list of the results of the integration of disciplines and courses.

The 31 remaining in the last discussion room, faculty and students, were offered a poll. That on the idea of using a single, on-line, shared management tool, in the form of an EXCEL spreadsheet®, for the deposit of all the classes of the subjects of the same year, was considered very useful or useful by a significant number of the respondents (Figure 1).

Also, about the repetition of subjects, during the classes of the school year, the workshop participants emphasized that the problem is not the repetition, but the rarity of integration - which is also not each one teaching a class with their slides, but the search and planning of an integrated teaching script for the attainment of competencies with other disciplines and courses.

In the end, 61.5% of the 1st year subjects and 68.8% of the 2nd year subjects (Tables 1 and 2), proposed the creation of more robust and pragmatic electives, which were quickly incorporated, for example by 39% and 25% of the 1st and 2nd year subjects that have already proposed them (Tables 1 and 2).

Regarding Extension activities, it also took only a stimulus from the year coordinators during the workshops for the subjects, for example, 7% and 50% of the 1st and 2nd Year Subjects (Tables 1 and 2) to already present proposals for interdisciplinary and inter-course extension activities.

Finally, during the presentations of year matrices and comparisons with other institutions well evaluated by the National Student Performance Exam (ENADE), and by the Brazilian accreditation system for medical schools (SAEME), it became evident during the discussions in the room that our matrices are excessive and that there is a lack of knowledge of what is recommended as the ideal total workload in the Matrix. In general a total of 7,500 hours - for the Medicine Course. And also, our Matrix has, in general, a lower load of practical activities from the 1st to the 4th year of the Medicine Course.

**Table 1:** Integration and extension subjects and activities, and creation of elective subjects for the 1st year of the Medical School in 2021

Disciplines	Integration Activities	Extension Activities	Elective Activities	Disciplines Aimed at Integration
Anatomy	2	No	readily	Tissue Biology, Physiology
Primary Care	2	readily	readily	Physiology, Anatomy
Biostatistics	No	No	No	No
Tissue Biology	3	readily	2	Biochemistry, Anatomy, Physiology
Developmental Biology	3	readily	1	Tissue Biology, Anatomy, Physiology
Biochemistry	2	readily	1	Tissue Biology, Physiology
Epidemiology	No	No	No	No
Physiology	4	readily	No	No
Genetics	3	readily	No	Tissue Biology, Developmental Biology, Biochemistry
Methodology	readily	readily	readily	No
Medical Psychology	No	No	No	No
Collective Health	2	1 (Rondon Project)	1	Epidemiology, Biostatistics
Sociotechnical	No	readily	No	No
Disciplines that offer activities	<b>8 (61,5%)</b>	<b>1 (7,7%)</b>	<b>4 (30,8%)</b>	
Total Activities	<b>21</b>	<b>1</b>	<b>5</b>	

## DISCUSSION

Teachers in the 70s and 80's often resorted to the phrase: "Medicine is Art, it is a science of transitory truths transformed into laws for didactic purposes". And we used to use it, irreverently and anecdotally, in several situations to define anything, challenging this concept.

Just in time, back in the 1970s, we applied that phrase to physics and mathematics among others that admitted they were not immutable, or after the discoveries of immunology, when we discarded our recently acquired books, and also when we saw the fall of the concepts of psychological dependence, or just a "habit", attributed to cannabis and tobacco.

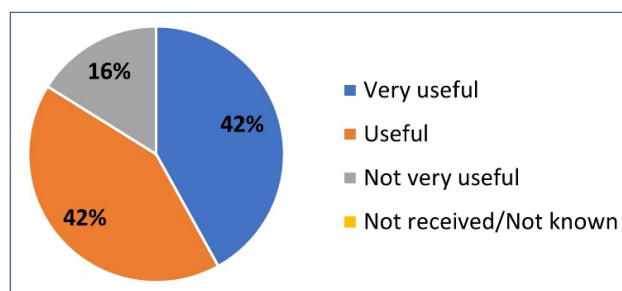
Now, we are reminded of that phrase just after we finished an informal poll with some medical students to check the gains and losses of remote emergency activities during the COVID-19 pandemic.

The definition of Art and transience of Medicine, we believe, is exuberantly demonstrated, now, during the challenge of having to embrace emergency remote teaching during the COVID-19 pandemic, in a traditional and integral Course as Medicine that did not match with electronic teaching. True because, as a noble Art, it is inspired and transmitted by centuries-old Masters who have served as models for us to never abandon our patients.

The phrase is true too, but now embarrassing us, as we witness teachers abandoning their students, using the same concept of Art, to irreducibly deny themselves remote teaching in times of pandemic. Because "Art cannot be delivered virtually," some have claimed. They refuse, and that's that.

Technology proves otherwise, and can even improve the teaching of this Art or even help students who don't do well in the theoretical classroom, or who are timider. Telemedicine also, for example, criticism or not, advances. Prescription becomes digital with the support of the Federal Council of Medicine. Yes, it is an Art, but with this Art, it is up to us, as teachers, also to form the citizen<sup>6</sup>. And, here we also add that this Art, like many, demands that we do not abandon our students, since we have become teachers, right?

And as Dr. Wheelhouse, a member of the General Medical Council, and a former president of the British Medical Association, stated as early as 1891 during a lecture: there is still weight in the old argument that medical education should, in any case, be as gentlemanly as possible for the student. And that the more you reduce it to the purely commercial standard, the less its elevated



**Figure 1:** Results of the poll "What did you think of the creation of the shared spreadsheet containing all lessons of all subjects for the whole year as a management and planning tool?"

**Table 2:** Integration and extension subjects and activities, and creation of elective courses for the 2nd year of the Medical School in 2021

Disciplines	Integration Activities	Extension Activities	Elective Activities	Disciplines Aimed at Integration
Primary Care II	readily	No	No	Pediatrics
General Surgery	1	1	No	No
Diagnostic Imaging	readily	No	No	No
Integrated Discussion Clinical Cases	No	No	No	No
Pharmacology	2	No	1	Physiology, Micro and Immunology, Pathology and Hematology
Physiology	4	2	1	Pharmacology, Pathology, Public Health, and Gynecology/Obstetrics
Gynecology	2	1	No	No
Hematology	2	No	No	Gynecology/Obstetrics, Vascular Surgery, Micro Immunology, Internal
Microbiology and Immunology	2	2	1	Infectology and Nephrology
Obstetrics	1	No	No	Hematology
Parasitology	1	2	4	Nutrition and Pharmacy, Pediatrics, Primary Care, and Micro Immunology
Pathology II	readily	No	No	No
Pediatrics	2	2	No	Neuropediatrics and Physiology
Propaedeutics I	readily	No	No	No
Collective Health	2	1	No	Primary Care and Mental Health, Epidemiology and Biostatistics
Sexual and Reproductive Health and Population Genetics	2	1	1	Urology
Disciplines that offer activities	11 (68,8%)	8 (50,0%)	5 (31,3%)	
Total Activities	21	12	8	

influences will be felt. And the higher the standard you aim for, the higher the aspirations you will stimulate<sup>7</sup>.

We understand that the concept is still current. And eternal. For fundamental are the incorporation of learning and the improvement of the interpersonal aspects of the assistential task, without having to become a psychologist<sup>8</sup>.

Rereading Masetto's 1998 exploration of the topic of University Teaching and the current technological changes<sup>9</sup> it seems he was speaking to us today. About what we face with remote teaching and the socialization of knowledge through technology. And the challenges of how to manipulate, work, organize, and select. For isn't this exactly what we are facing now? And how strongly will these developments influence medical education and the Brazilian system of accreditation of medical schools?<sup>10</sup>

We see then, during this pandemic, an opportunity to explore, study, plan and face the challenge of remote learning, as several educators and technical notes already issued by national and international councils state. An opportunity to change educational standards and discover new concepts and methods.

Thus, we also agree that the problems that already existed will be intensified. And, of course, one of them, often forgotten, and highlighted long ago by Prof. Ernesto Lima- Gonçalves<sup>11</sup> is the search for the emotional balance of the medical student as a pedagogical objective to be seriously considered.

And the search for this emotional balance of students, teachers, and patients, will find a great challenge in a great wave of mental disorders that affects the whole world, during and after the pandemic, promoting sequels and challenging educators of this population already more susceptible to depressive and anxiety disorders<sup>5,12-14</sup> in its various manifestations<sup>5,14,15</sup> throughout their training and already with consequences in professional training<sup>4</sup>.

After a year of remote classes and some evaluations, we decided to investigate further what has worked and been considered good and what has not worked and was not good. And to discuss and think about the future.

Our first findings, when evaluating our pedagogical plan for the medical course, were that our pedagogical matrix has different characteristics from other schools, whether public or private. It has more hours, fewer practical loads in all years, and a larger number of

subjects. A few years ago, the decision to increase the internship to five semesters and the need to anticipate several clinical disciplines to fit them all together and to accumulate hours of clinical disciplines to traditionally extensive and traditional disciplines such as Pharmacology, Pathology, Physiology, and Micro Immunology contributed, in part, to this overload of our current Medicine course. However, these are necessary for the basic training of future physicians.

And now, this overload revealed and measured by remote teaching during the pandemic, has left exposed the unhelpful or harmful overload, the pedagogical inadequacy, and the little success or less success of the previous delivery compared to the emergency process.

The current discussion is to give priority to competencies and no longer to content, which is only increasing. And according to the needs of our country, even in our region, we have to train general practitioners and, if necessary, offer specialization afterward. And for the specialized residency and post-graduation, what is being sought is to get away from equal time for all and maintain the focus on quality evaluations in the sufficiency of the competencies delivered. Hence the proposal to discuss the reform of the matrices, also the revisited writing of the competencies required for each discipline in each year.

This evidence recommends an urgent and very timely revision of the matrix and the workload of each discipline, because we have, compared with some schools, a surplus of more than 1,000 hours.

Finally, here we have evidence indicating an opening for the improvement of our educational management and the planned revision of a leaner and healthier matrix, in "Covidian" times

Our overall impression was that the Medical School Pedagogical Week 2021 was very objective, and productive, and rekindled the interest of teachers and students in working together to improve teaching and learning.

An anonymous remark from a workshop participant sums up the spirit of this work: "We need at least two annual events: one for planning and, at the end of the year, one to evaluate what has been planned and accomplished.

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