

Chapter 83

Learning stimulated by clinical cases – experience with the use of active methodology in the discipline of allergy and clinical immunology during the COVID-19 pandemic

  <https://doi.org/10.56238/devopinterscie-083>

Nícolas Apratto de Almeida

Juliana Louise Dias Lima

Iramirton Figuerêdo Moreira

1 INTRODUCTION

In March 2020, the Director-General of the World Health Organization declared a state pandemic due to the spread of COVID-19. As a result, all educational institutions in Brazil were forced to interrupt face-to-face classes, which has led to the multiplication of virtual education environments, according to Silva et al. (2020).

The need for remote education in the health area, which depends on practical activities, required the development of new methodologies, such as the use of weekly Directed Studies based on clinical cases by monitors of the elective discipline Allergy and Clinical Immunology.

Academic monitoring, present in Higher Education Institutions (HEIs) and provided for by law, has objectives such as enhancing learning, using appropriate language, and encouraging research and extension. Furthermore, it intensifies the teacher-student-institution relationship (Natário, 2007), becoming an important agent of the teaching-learning process, according to Câmara, Akaishi, Cabreira, and Camargo (1997).

Thus, we describe the experience and complementary teaching strategy implemented by the monitors of the elective discipline of Allergy and Clinical Immunology, who sought to remotely associate the virtual learning environment with clinical practice.

2 CONTEXT

During the exceptional school period (PLE) and the 2020.1 periods, the discipline's classes were taught remotely through the Google Meet platform, on Thursdays, from 4 pm to 5:30 pm. In addition, asynchronous activities were made available on the topics covered in class.

The monitoring carried out had 12 hours per week divided into two days, and the monitors were always available to help students and teachers through the WhatsApp group. A six-hour synchronous meeting was held in which the monitors supported the teacher, recording and editing the class, if necessary.

After each synchronous meeting, classes were made available on the YouTube platform and each student received a guided study on the topic of the week on the Google Classroom platform. In addition, the WhatsApp social network was used for closer communication between students, teachers, and monitors, being one of the advantages brought by the internet and allowing greater use of the discipline, as highlighted by Azevedo et al. (2020).

The main objective was to address clinically relevant content and form a solid theoretical basis for the general practitioner, since education in allergology and clinical immunology is fundamental for better management of allergic and immunological conditions, which are extremely frequent, as highlighted by Moreira, Mundim, & de Jesus (2018). In this context, the role of monitors in helping to resolve the needs of students and teachers was essential, as pointed out by Goudouris, Giannella, & Struchiner (2013).

Due to the pandemic, it was necessary to use the virtual environment as a means of learning, being fundamental for the continuity of scientific and educational activities. The 21st century was marked by sociocultural changes influenced mainly by digital information and communication technologies (TDIC), which are increasingly present in almost all layers of society (Silva, 2017), and these technologies were crucial to reduce losses when adopting digital platforms for teaching and academic integration, allowing learning objectives to be achieved.

3 DIRECTED STUDIES

According to Melo et al. (2014), the traditional teaching approach is characterized by the centrality of the teacher, who is responsible for transmitting information, while the student occupies a secondary position. To overcome this limitation, a form based on real clinical cases was created, to bring students closer to clinical practice.

The clinical cases presented (Figure 1) consisted of one or two questions that required essay answers from the students, based on the analysis and collective and individual discussion of the information provided in the case. According to Vieira, Vieira, and Pasqualli (2017), this process stimulates students' argumentative and critical capacities. Each student had one week to respond to the directed study, which, together with the standard assessment, made up the final grade for the discipline.

Figure 1 - Example of Guided Study sent to students Source: Prepared by the authors (2021).

Paciente com 5 anos de idade apresenta urticária cerca de 24 horas após ter comido camarão pela primeira vez na vida. Não apresenta angioedema associado. Não possui comprometimento de outro sistema ou queda de pressão arterial. Ele chega no seu plantão da UPA com mais de 50 lesões urticariformes em face, tronco e membros inferiores associadas a prurido intenso. Sua mãe relata que iniciou quadro respiratório em via aérea superior (tosse, coriza e picos subfebris) há 3 dias.
Referente a esse caso, responda as seguintes perguntas:

Qual a possibilidade do paciente estar desenvolvendo alergia a camarão? Leve, moderada ou alta? Justifique a resposta. Após estabilização do quadro, você recomendaria fazer um teste de sensibilidade a camarão?

Qual seriam os exames necessários para investigação diagnóstica do quadro atual? *

Qual seria o tratamento para esse quadro agudo do paciente? *

Source: Prepared by the authors (2021)

4 OUTCOME

Through the integration between the Google Classroom and Google Forms platforms, it was possible to have control over the activities carried out by the students and, thus, identify the most common mistakes and successes. The activities were a significant part of the final course grade and were highly beneficial, with a 100% response rate and extremely positive student feedback. In the final course evaluation, students rated the course with an average of 9.75 on a scale of 0-10 and 100% recommended.

Figure 2 - Results of the Discipline Assessment Survey



Source: Prepared by the authors (2021)

Subtitle: Blue recommended
 Red not recommended
 Yellow maybe
 SUBJECT RECOMMENDATION AVERAGE: 100%

5 MONITORS PERSPECTIVE

Mentors play a crucial role in helping students and teachers achieve their learning goals and facilitating access to knowledge and technologies. The more a teacher can master different digital technologies and contextualize them for teaching, the more diversified their work will be and, consequently, the greater the positive impact on student learning, according to Souza and Carvalho (2021).

Monitoring also offers many benefits for the monitor, such as the opportunity to build and consolidate knowledge of the discipline, mediate doubts between students and professors, review subjects for scientific production, and correct weekly activity forms. In addition, monitoring helps to expand the

social network of contacts, which can have a positive impact on future academic and professional life, according to Santos and Batista (2015).

6 FINAL CONSIDERATIONS

Participation in monitoring contributes to the growth of monitors in the academic field, as it is through it that the monitor is encouraged to deepen their knowledge in the discipline, in addition to the fact that the monitor becomes an essential factor for the development of the discipline remotely. In addition, it also encourages academic monitors to have a sense of responsibility and cooperation both with other monitors and with professors, encouraging them to keep up to date with technologies that can improve the use of the discipline.

Regarding methods, the use of activities carried out in continuous learning has a positive impact on student training and learning, enabling optimized use of time.

Thus, the importance of using weekly activities that address clinical situations required in practice during the teaching of Allergy and Immunology is reiterated, mainly due to the great clinical and epidemiological relevance of their conditions, which can have serious consequences.

REFERENCES

- AZEVEDO, Carlos Rafael Lopes de; FARIAS, Maria Eduarda Leão de; BEZERRA, Camila Carlos. Monitoria acadêmica em uma disciplina semipresencial: relato de experiência. *Research, Society and Development*, v. 9, n. 4, p. e39942788–e39942788, 2020.
- CÂMARA, S. S. P. et al. Monitoria Acadêmica em Semiologia Médica: Descrição e Avaliação de uma Nova Experiência. *Revista Brasileira de Educação Médica*, v. 21, p. 47–54, 9 nov. 2020.
- GOUDOURIS, Ekaterini Simões; GIANNELLA, Taís Rabetti; STRUCHINER, Miriam. Tecnologias de informação e comunicação e ensino semipresencial na educação médica. *Revista Brasileira de Educação Médica*, v. 37, p. 396–407, 2013.
- MELO, Myllena Cândida de; QUELUCI, Gisella de Carvalho; GOUVÊA, Mônica Villela. Problematizando a residência multiprofissional em oncologia: protocolo de ensino prático na perspectiva de residentes de enfermagem. *Revista da Escola de Enfermagem da USP*, v. 48, p. 706–714, 2014.
- MUNDIM, Andressa Carolina Oliveira; JESUS, Kathiane Pereira de; MOREIRA, Iramirton Figuerêdo; et al. Conhecimento sobre Anafilaxia entre Estudantes de Medicina de Maceió-AL. *Revista Portal: Saúde e Sociedade*, v. 3, n. 1, p. 655–665, 2018.
- NATÁRIO, Elisete Gomes (2007). Monitoria: um espaço de valorização docente e discente. *Anais do 3º Seminário Internacional de Educação do Guarujá, 2007* (1, 29). Santos: Editora e Gráfica do Litoral.
- SANTOS, G. M., & Batista, S. H. S. da S. (2015). Academic monitoring in health teaching: challenges and possibilities in an interprofessional health curriculum. *ABCS Health Sciences*, 40(3). <https://doi.org/10.7322/abcshs.v40i3.79>
- SILVA, João Batista da. O contributo das tecnologias digitais para o ensino híbrido: o rompimento das fronteiras espaço-temporais historicamente estabelecidas e suas implicações no ensino. *ARTEFACTUM - Revista de estudos em Linguagens e Tecnologia*, v. 15, n. 2, 20 out. 2017. VIEIRA, Josimar de Aparecido;
- SOUZA, José Batista de, & Carvalho, Tainah dos Santos (2021). Formação de professores para o uso de tecnologias digitais: Um relato de experiência no Colégio Estadual Professora Luzia Carvalho Silva. *Research, Society and Development*, 10(4), e33710414156–e33710414156. <https://doi.org/10.33448/rsd-v10i4.14156>
- VIEIRA, Marilandi Maria Mascarello; PASQUALLI, Roberta. Estudo de caso como estratégia de ensino para a Educação Profissional e Tecnológica. *Série-Estudos - Periódico do Programa de Pós-Graduação em Educação da UCDB*, p. 143–159, 26 abr. 2017.