universidade de aveiro
7ª edição
2 - 3 julho'25
forum@ua teaching & learning
fórum de ensino & aprendizagem@UA

SkillsLab – Laboratório de Competências Transversais:

um ecossistema para o desenvolvimento humano no Ensino Superior

Anabela Simões, Sónia Estrela, Dina Baptista
ESTGA-UA, Universidade de Aveiro

How can we prepare students for jobs that have not yet been created, to tackle societal challenges that we can't yet imagine, and to use technologies that have not yet been invented?
How can we equip them to thrive in an interconnected world where they need to understand and appreciate different perspectives and world views, interact respectfully with others, and take responsible action towards sustainability and collective well-being?

OECD, Future of Education and Skills 2030/2040

Introdução

Num mundo em constante transformação, marcado por desafios sociais, ambientais, económicos e tecnológicos cada vez mais complexos, a formação de estudantes no ensino superior deve ir além da componente técnico-científica. Tornou-se essencial cultivar competências como a comunicação eficaz, o trabalho em equipa, a adaptabilidade a contextos multiculturais, o pensamento crítico e a capacidade de agir de forma consciente e sustentável – qualidades indispensáveis ao sucesso pessoal, profissional e coletivo.
Neste contexto, as instituições de ensino superior assumem um papel decisivo não apenas na qualificação técnica dos futuros profissionais, mas também na formação de cidadãos conscientes, criativos e empenhados na construção de sociedades mais equilibradas e sustentáveis.
É com base nesta visão que, em janeiro de 2025, foi criado o **Skills Lab – Laboratório de Competências Transversais da ESTGA-UA**, espaço que se configura como um ecossistema de aprendizagem não formal, complementar ao percurso académico, no qual os estudantes podem desenvolver e aplicar, de forma prática e colaborativa, competências essenciais para a vida ao longo do seu percurso académico.

Objetivos do Skills Lab

- Criar oportunidades para a aprendizagem inter- e transdisciplinar através de contextos colaborativos e práticos;
- Fomentar o desenvolvimento de *core skills* essenciais à integração no mercado de trabalho;
- Reforçar a empregabilidade dos estudantes e a sua preparação para os desafios do mundo global;
- Promover a cidadania ativa, a responsabilidade social e o envolvimento dos estudantes nas suas comunidades;
- Estimular a autoeficácia, a criatividade e o pensamento crítico;
- Incentivar atitudes e comportamentos que contribuam para a sustentabilidade ambiental e social;
- Valorizar e dinamizar a cultura, reconhecendo o seu papel na construção de um mundo mais humano e plural.

Toolkit de competências transversais

Assente em quatro grandes domínios de atuação (Figura 1), o Skills Lab é dinamizado através de um conjunto diversificado de atividades extracurriculares, oficinas criativas e workshops temáticos que visam fortalecer competências essenciais para o desenvolvimento integral dos estudantes da ESTGA-UA:

1. Competências de comunicação
Foco no desenvolvimento da expressão escrita, oral e na literacia informacional, essenciais para o sucesso académico e profissional.

2. Empregabilidade e desenvolvimento profissional
Foco na capacitação dos estudantes para a transição para o mercado de trabalho e construção de percursos profissionais significativos.

3. Interculturalidade, cidadania e sustentabilidade
Foco na formação de cidadãos conscientes, participativos e comprometidos com um mundo mais justo e sustentável.

4. Bem-estar pessoal e gestão emocional
Foco na promoção do equilíbrio emocional e na saúde mental como pilares para o sucesso pessoal e académico/profissional.

Atividades

Dirigidas a todos os estudantes da ESTGA-UA, as atividades dinamizadas no âmbito do Skills Lab assentam em formatos flexíveis e interativos, incluindo laboratórios práticos, dinâmicas de grupo ou projetos colaborativos, assim como sessões com especialistas, ex-alunos e parceiros da comunidade para partilhar experiências e boas práticas.



Fig.1 Domínios de atuação do Skills Lab.

1º semestre '25: balanço

Entre janeiro e junho de 2025, o Skills Lab promoveu um conjunto diversificado de atividades com o objetivo de sensibilizar para a sustentabilidade, promover comportamentos ambientalmente responsáveis e reforçar o envolvimento cívico e comunitário dos estudantes. As iniciativas incluíram um seminário sobre biodiversidade, dramatizações dirigidas ao público infantil, palestras de sensibilização ambiental, campanhas que promoveram a recolha de beatas dos espaços comuns e um ciclo de workshops sobre moda circular, que culminou com uma ação solidária. A estas somaram-se workshops de escrita académica e de fotografia mobile, bem como uma sessão de yoga e uma caminhada *plogging*, que aliaram bem-estar à proteção ambiental – atividades que incentivaram a criatividade, a reflexão crítica e a adoção de hábitos mais sustentáveis no dia a dia.

Galeria de imagens:

No ano letivo 2025/26, o Skills Lab continuará a promover atividades dirigidas a todos os estudantes — como, por exemplo, a celebração do Dia Nacional da Sustentabilidade, assinalado a 25 de setembro —, integrando igualmente iniciativas especialmente orientadas para os estudantes do 1.º ano, em estreita articulação com o Programa de Tutoria/Mentoria da UA.

Considerações finais

Acreditamos que participar no Skills Lab é ter a oportunidade de aprender fazendo, colaborar em rede e sair da zona de conforto. É, acima de tudo, preparar-se para ser um profissional mais completo e um cidadão mais consciente, solidário e participativo, atento à diversidade cultural, comprometido com o outro e com o planeta, e pronto para contribuir para uma sociedade mais justa, inclusiva e sustentável.
Inspirado pelos princípios da **Educação 5.0** – que propõe uma abordagem mais humanista e centrada no bem-estar coletivo –, o Skills Lab posiciona-se como uma resposta às exigências de um mundo em rápida mudança, onde a tecnologia e a humanização caminham lado a lado. Este novo paradigma educativo valoriza não apenas o domínio técnico e digital, mas também o desenvolvimento da **empatia, da criatividade, da colaboração e da responsabilidade social**.
Ao proporcionar experiências interdisciplinares, orientadas para a ação, o Skills Lab procura, em suma, promover o desenvolvimento pessoal e interpessoal, a consciência crítica, o envolvimento cívico e comunitário e o compromisso com a sustentabilidade ambiental. Além disso, o Skills Lab reconhece a importância da cultura como catalisadora da coesão social e da valorização da diversidade, promovendo oficinas e iniciativas que estimulam o diálogo intercultural, a expressão artística e o pensamento inclusivo.

Referências

OECD (n.d.). *Future of Education and Skills 2030/2040.* https://www.oecd.org/en/about/projects/future-of-education-and-skills-2030.html

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

universidade de aveiro
7ª edição
2 - 3 julho'25
forum@ua teaching & learning
fórum de ensino & aprendizagem@UA

Contar para Comunicar

Escrita Criativa como Prática Interdisciplinar

Ana Estima
Instituto Superior de Contabilidade e Administração / GOVCOPP, Universidade de Aveiro
Alexandra das Neves
Departamento de Educação e Psicologia / CLLC / CIDTFF, Universidade de Aveiro

Resumo / Abstract
O ensino superior enfrenta desafios na formação de estudantes com competências transversais, essenciais num mercado de trabalho dinâmico que valoriza a criatividade, o pensamento crítico e a comunicação eficaz. A segmentação disciplinar dificulta abordagens interdisciplinares, mas a Universidade de Aveiro tem procurado promover práticas pedagógicas inovadoras que incentivem estas práticas. O projeto "**Do Marketing às Línguas: A Arte da Escrita Criativa**" surgiu neste contexto, envolvendo estudantes de Marketing e de Línguas numa experiência conjunta de escrita criativa.
Desenvolvido nas unidades curriculares de "**Seminários de Marketing**" e "**Técnicas de Expressão de Alemão VI**", o projeto envolveu cerca **de 80 estudantes das licenciaturas em Marketing, Línguas e Relações Empresariais e Línguas e Estudos Editoriais.** A metodologia baseou-se na aprendizagem ativa, com destaque para um *workshop* inicial de escrita criativa ministrado por um autor de renome. A partir daí, os alunos trabalharam em grupos interdisciplinares, criando histórias originais e aplicando os conceitos aprendidos. Os estudantes de alemão traduziram os textos, reforçando a componente colaborativa e linguística. O processo incluiu momentos de feedback contínuo e resultou na publicação de um *e-book* coletivo.
A avaliação da atividade combinou questionários e observação direta. A atividade foi avaliada de forma positiva, com destaque para melhorias na escrita, criatividade e comunicação. Os principais desafios foram a gestão de horários e a articulação entre o *workshop* e a produção final.
Apesar dos desafios enfrentados, o projeto demonstrou o potencial da interdisciplinaridade para inovar no ensino superior, promovendo competências aplicáveis em vários contextos profissionais A valorização do *storytelling* e da comunicação eficaz revela-se essencial não apenas no contexto académico, mas também no mundo do trabalho, onde a capacidade de estruturar narrativas envolventes pode ser um diferencial competitivo. O projeto abre caminho para novas experiências pedagógicas, incentivando outras instituições a explorarem abordagens semelhantes para enriquecer a formação dos seus estudantes.

Objetivos

Este projeto teve como principal objetivo promover a interdisciplinaridade no ensino superior, articulando saberes das áreas do Marketing e das Línguas através da prática da escrita criativa. Pretendeu-se responder à necessidade de desenvolver competências transversais valorizadas no mundo profissional, como a criatividade, o pensamento crítico, a comunicação eficaz e a capacidade de trabalho em equipa. A iniciativa procurou ainda aproximar os estudantes de contextos reais e socialmente relevantes, incentivando-os a refletir sobre os desafios da sua geração e a transformar essas reflexões em narrativas originais e significativas. Através do contacto com um autor profissional e da constituição de grupos interdisciplinares, o projeto visou também reforçar a capacidade de expressão escrita em diferentes línguas e contextos, estimular a empatia e fomentar a colaboração entre estudantes com percursos académicos distintos, preparando-os para contextos profissionais cada vez mais complexos e exigentes.

Implementação

A implementação do projeto decorreu em várias fases articuladas. Numa primeira etapa, procedeu-se à planificação conjunta entre as docentes das áreas envolvidas, à definição dos objetivos pedagógicos e à candidatura ao prémio de Inovação Pedagógica da Universidade de Aveiro.



Fig.1 Ebook elaborado como produto final do projeto (ISBN 978-972-789-931-9)



Fig.2 Workshop de escrita criativa, realizado com Pedro Chagas Freitas.

Seguiu-se a organização logística de um *workshop* de escrita criativa, adaptado aos contextos de Marketing e de Línguas, orientado por um autor de renome. Participaram cerca de 80 estudantes de três licenciaturas, organizados em grupos interdisciplinares formados por sorteio, de forma a garantir a diversidade de perfis. Após atividades de acolhimento e quebra-gelo, os grupos começaram a conceber histórias originais, com base em desafios sociais previamente identificados. Os textos foram trabalhados colaborativamente, com apoio docente, e posteriormente traduzidos pelos estudantes de Alemão. Ao longo do processo, foram promovidos momentos de reflexão, partilha e feedback. O projeto culminou na publicação de um *e-book* bilingue, reunindo os contos desenvolvidos. A avaliação foi realizada através de questionários e observação direta, com indicadores de elevada satisfação e valorização da experiência interdisciplinar e criativa.

Resultados

O projeto resultou na criação de 11 histórias originais por grupos interdisciplinares de estudantes das áreas de Marketing e de Línguas. Inspirados por desafios sociais atuais, os textos foram reunidos no e-book *"As Histórias que Nos Unem: Escrita Criativa e Diversidade Linguística"*, publicado pela editora da Universidade de Aveiro. As narrativas abordam temas como solidão, desinformação, crise da habitação, ansiedade e emigração, sendo apresentadas em português e alemão. A experiência reforçou competências interculturais, linguísticas e criativas, promovendo a colaboração entre áreas distintas e incentivando a reflexão crítica sobre questões contemporâneas. O projeto contribuiu para uma formação mais completa, inclusiva e socialmente relevante.

Conclusões / Conclusions

A análise dos dados recolhidos revelou um elevado nível de satisfação dos participantes, que destacaram a componente prática, o trabalho em equipa e o caráter interdisciplinar como os aspetos mais valorizados. A interação com o autor convidado e a criação colaborativa das histórias foram apontadas como momentos marcantes. Entre os desafios, referiram-se dificuldades logísticas, como a gestão dos horários e o equilíbrio na divisão de tarefas nos grupos. Ainda assim, o projeto teve um impacto muito positivo no desenvolvimento de competências criativas, comunicativas e interculturais, demonstrando o potencial transformador de práticas pedagógicas inovadoras no ensino superior.

Referências / References

Estima, A. & das Neves, A. (2025). Fostering Innovation and Interdisciplinarity in Higher Education: A Project on Creative Writing for Marketing and Language Students. HEAd'25.
Carvalho, A. Teixeira, S. J., Olim, L., Campanella, S. & Costa, T. (2020). Pedagogical innovation in higher education and active learning methodologies - a case study. *Education + Journal*, 63(1), 1-15.
Li, F., & Su, H. (2021). Storytelling engages a reader's interest through written texts. *Journal of Language and Linguistic Studies*, 17(1), 123–135.
Neira-Piñeiro, M. del R., & Montañez, M. L. (2017). Enhancing vocabulary and writing skills through digital storytelling in higher education. *Journal of Language and Linguistic Studies, 13(2)*, 366-377.
Repko, A.F., Szostak, R. & Buchberger, M.P. (2020). *Introduction to interdisciplinary studies (3rd ed.)*.

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

Em tempos desafiantes… cidadania ativa em forma de UC …

Marta Ferriera Dias
/GOVCOPP, DEGEIT, Universidade de Aveiro

Resumo / Abstract
A UC de Economia Europeia da Licenciatura em Economia (3º ano), todos os anos, desde 2008, pretende desenvolver, nos estudantes, competências técnicas relacionadas com a forma como a Teoria Económica explica o processo de integração europeia e a sua evolução, as consequências, impactos e funcionamento. Contudo, a singularidade e originalidade da abordagem é a dinamização de atividades diversas, como desafio e em colaboração com os alunos, de envolvimento com a comunidade académica e com a comunidade em geral, que lhes permite desenvolver não só as competências já referidas, mas também as competências transversais tão pedidas na transição dos nosso estudantes para o mercado de trabalho. No essencial, existe em toda o desenvolvimento da UC, em cada ano letivo, a preocupação para a vivência da cidadania europeia. Num contexto internacional de tanta incerteza, ao longo do segundo semestre, os estudantes colaboram, em grupo, na escrita de uma coluna de opinião, para dois jornais da região centro, gravaram um podcast sobre um tema europeu, organizam e participam, em conjunto com a docente, num concurso universitário, a "Simulação do Parlamento Europeu", onde se discutem os temas do seu interesse e onde têm a presença de especialistas com quem os discutem. A participação em todas as atividades, que decorrem no enquadramento da UC, permitem o contacto e diálogo com a sociedade e com diferentes públicos com quem os estudantes precisam comunicar ciência. De uma forma colaborativa e ativa é desenvolvida nos estudantes a perceção da cidadania europeia e como é que este sentimento se pode revelar como essencial para que aumente o seu interesse e participação como cidadãos. O sucesso desta UC decorre do grande envolvimento e interesse dos alunos, da colaboração com o Núcleo de Estudantes de Economia e de organizações externas ligadas a estas temáticas. Todos os anos é percetível nos alunos o aumento do seu interesse nas temáticas europeias, que se espera se reflita num mais profundo exercício da sua cidadania (europeia).

Quando começou e como?
A partir do ano letivo de 2008/2009, a unidade curricular de Economia Europeia passou a incluir um objetivo adicional de desenvolvimento de competências no domínio da cidadania europeia ativa, nos estudantes .

O ano de 2009 era um ano de eleições europeias e o mote para esta necessidade foi dado pela perceção pela docente do desinteresse completo por temas europeus e pelas próprias eleições.
Várias diretivas, a nível nacional e Europeu, têm apontado para a pertinência de se desenvolverem ações integradas no domínio da educação para a cidadania e democracia que permitam aproximar os jovens da vida cívica (Annette, 2009). Estas diretivas estão ancoradas em estudos que apontam para um crescente desinteresse dos jovens pela participação na política e na sociedade. Segundo o Eurobarometro (2025), 61% dos jovens europeus estão otimistas quanto ao futuro da UE e 60% acreditam que a UE tem um impacto positivo na sociedade. Os jovens europeus associam ser parte da UE, principalmente, à liberdade de viajar e explorar outros países (39%) e ao acesso a programas e apoios financiados pela UE (30%). Ainda assim, ainda se nota um afastamento dos jovens relativamente à EU.

O que acontece?
Todos os anos letivos os alunos do 3º ano da licenciatura em Economia são chamados a participar ativamente e de forma colaborativa em vários desafios com o intuito de despertar neles a participação civica ativa. Em primeiro lugar, a darem testemunho da sua visão sobre o que é notícia, durante o semestre, através de uma revista de imprensa apresentada em poster. Esta exposição decorre num espaço da UA e depois posteriormente percorre várias escolas e bibliotecas da região Centro. O segundo desafio é a participação num concurso universitário, criado no âmbito da UC, que já conta com a 10ª edição, aberto a toda a comunidade académica e co-organizado com o Núcleo de Estudantes em Economia, no qual os alunos simulam o funcionamento do Parlamento Europeu.



Fig.1 Padlet do trabalho colaborativo da UC durante o semestre



Fig.3 Eventos variados no âmbito da UC no 2º semestre 2023-2024

Nesta experiência os estudantes propõem soluções para problemas europeus, pelos quais revelam preocupações, e discutem em sessões temáticas e, posteriormente, em plenário.
Na mesma lógica, esta participação visa não só a consciencialização sobre temas atuais e importantes que têm impacto no seu dia a dia, mas também e principalmente, a procura de soluções para esses problemas.
Esta experiência pretende desenvolver igualmente a maior proaticvidade e o espírito critico.
Ainda durante o semestre, os alunos são desafiados a gravarem um podcast sobre um tema europeu do seu interesse que depois será divulgado por uma rádio regional. A acrescer, os estudantes escrevem um artigo de opinião a ser publicado no Diário de Aveiro e/ou Diário de Viseu.

Impacto pretendido (além da UC)
Por capacitação entende-se um processo interativo que ocorre entre o indivíduo e o seu ambiente, no decurso do qual os sentimentos iniciais de limitação ou incapacidade se transformam numa aceitação crescente do seu papel, poder e responsabilidade como cidadão assertivo e participativo (Rappaport citado por Sadan, 2002). Com esta capacitação pretende-se mudanças internas e externas nos alunos. As primeiras dizem respeito à crença do estudante na sua capacidade de tomar decisões e resolver ativamente problemas. As mudanças externas manifestam-se na capacidade de agir e implementar conhecimentos, competências e outros recursos de modo prático, para cumprir os seus objetivos. O resultado desta capacitação será o desenvolvimento de competências pessoais e sociais ancoradas numa consciência crítica.



Fig.2 Vencedores da Simulação do PE

Conclusões
Consciência crítica e a cidadania ativa devem ser formadas e consolidadas através das experiências que são incentivadas na UC e que resultam não só da interação entre os alunos, mas também da interação com as parcerias desenvolvidas.
A UC de Economia Europeia procura, através de parcerias com o Núcleo de Estudantes de Economia (NEEC) ou com entidades externas à UA (Europe Direct Vseu Dão Lafões), desenvolver nos alunos competências, para além de técnicas, de forma a que se formem não só economistas, mas também cidadãos europeus esclarecidos, informados e por isso ativos.

Referências / References
Annette, J. (2009). `Active learning for active citizenship': Democratic citizenship and lifelong learning. Education, Citizenship and Social Justice, 4(2), 149–160. https://doi.org/10.1177/1746197909103934
Eurobarometer (2025). EU challenges and priorities: young Europeans' views. Sadan, E (2002), Empowermen and Community Planning, Israel: Hakibbutz Hameuhab Publishing House

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

BEYOND THE PITCH

Game-based journeys in Entrepreneurship in an ETP

Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves
GOVCOPP, DEGEIT, University of Aveiro

Abstract
The "Game it Away" project – funded by the Erasmus+ Programme – aims to design and pilot as main output, the Entrepreneurship Training Programme (ETP), a short and accessible course tailored for higher education students, at both graduate and postgraduate levels, across various fields of study.
The ETP combines elements of game design and maker-centered learning to foster entrepreneurial mindsets and develop key entrepreneurial skills, as
The project's first international ETP took place in the University of Aveiro, between November 4 and 8, 2024. It was designed to develop entrepreneurial skills through the use of game-based learning and interdisciplinary collaboration.
The activities carried out during the programme, namely critical thinking, problem-solving and teamwork, contributed to the main aim: the development of an entrepreneurial mindset and skills. The programme combined interactive modules and practical sessions to create physical games using the Makers Lab of the "Fábrica da Ciência Viva" (https://www.ua.pt/en/fabrica/).
Participants had to engage in an entrepreneurial mindset to present their games in a Game JamMaster event.
Feedback, not only from the participants, but also from the facilitators showed that the ETP International Edition programme effectively developed entrepreneurial thinking and innovation through practical and immersive learning experiences. The strengths of the programme, in terms of engagement, teamwork and teaching quality, were widely recognized by the participants at the end of the experience and by the trainers involved. More editions are forecasted to happen in the near future.
The ETP programme is offered as a microcredential in the University of Aveiro.The feedback and comments from the first international edition was used to propose this flexible, targeted way to help people develop entrepreneurial skills and competences they need for their personal and professional development.



Fig.1 Game It Away Logo

ETP International Edition
The ETP International Edition programme had a diverse group of 18 participants from the Higher Education Institutions involved in the Game It Away project consortium: University of Aveiro (UA), Bialystok University of Technology (BUT), Cyprus University of Technology (CUT), Kaunas University of Technology (KTU) and University of Western Macedonia (UOWM), creating a multidisciplinary learning environment.
The group had undergraduate, master's and doctoral students, with most of them being master's students.
The ETP International Edition was enriched by diverse student backgrounds. Business students contributed entrepreneurial knowledge, engineers brought innovation and problem-solving, and marketing students enhanced branding and user engagement. Education students added insights into learning design and teamwork, supporting game-based learning development.
The ETP International Edition programme followed a well-structured agenda, ensuring progressive learning, hands-on activities, and interactive engagement. The six modules built upon each other logically, allowing students to develop entrepreneurial skills in a structured and immersive way.

Participants Experience
The international edition of the ETP received a very high overall satisfaction (4.3/5), with students praising its structure, interactivity and relevance to the real world. The fact that participants came from different backgrounds, at different academic, age and gender levels reflected the inclusive nature of the programme. The students appreciated the experience of the facilitators and the opportunity to work in interdisciplinary teams, which promoted entrepreneurial thinking, problem-solving and collaboration not only between the participants themselves but also with the facilitators. They also highlighted the value of the practical activities, although many recommended clearer guidelines and more time for the final presentations.
The participants faced some challenges such as different skill levels, language barriers and limited access to materials. Suggestions for improvement included personalized guidance, pre-assessments to adapt content, structured peer reviews and better logistical support.
Despite some organizational problems, the feedback was extremely positive.



Fig.2 ETP International Edition: participants at Fábrica da Ciência

Students reported great personal growth, increased motivation and the practical application of skills, with many expressing an interest in participating in programmes like this again.



Fig.3 Book published

Facilitators Experience point of view
The facilitators of the international edition of the ETP also gave the programme a high rating (4.2/5). They praised its clear structure, interactive design and practical methodology, highlighting its strong alignment with the students' learning objectives. Student participation was highly rated (4.3/5).A significant development of critical thinking, communication and entrepreneurial skills was observed. The use of a maker space and real-world examples was considered a strength of the programme.
However, several challenges were also identified. Time management, especially during the prototyping phases. Cultural and language barriers between participants from different teams sometimes led to problems within group dynamics.
The facilitators also highlighted the need for better coordination, more flexibility in the pace and greater involvement in the design of the programme and they proposed advisory groups to improve collaboration with the organizers.
Despite these challenges, the facilitators found the experience professionally enriching and aligned their feedback with the ones of the students, confirming the programme's positive impact on learning and collaboration.

Improvements from lessons learned
The ETP International Edition programme was praised for its strong engagement, interdisciplinary collaboration and hands-on approach to learning. However, both students and facilitators identified areas for improvement. The main suggestions included implementing structured and timely feedback sessions, allowing more time for prototyping and proposal preparation, and improving transitions between modules.
Teamwork was a point of emphasis, but challenges such as the uneven distribution of workload and cultural differences suggested the need for team-building activities in the beginning of the ETP.
Facilitators recommended including even more real-world case studies, interactive content and conflict resolution training.
To improve coordination, it was suggested to include pre-programme alignment meetings and the creation of an advisory group of facilitators, as well as stronger collaboration with decision-makers through regular feedback loops.

Conclusões / Conclusions
The ETP International Editon programme successfully fostered an entrepreneurial mindset through its dynamic combination of game-based learning and interdisciplinary collaboration. The strongest aspects of the programme were a structured curriculum and interactive approach, which resulted in strong student engagement, teamwork and skill acquisition.
To further strengthen the programme, future editions should implement more feedback mechanisms, time management, clearer definition of team roles, and better access to learning resources. Addressing these aspects would significantly enhance the overall effectiveness and learning experience for participants.

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

universidade de aveiro
7ª edição
2 - 3 julho'25
forum@ua teaching & learning
fórum de ensino & aprendizagem@UA

Enhancing BioMedical Education:

The DCM Initiative

Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha
Medical Sciences Department's Commission for Pedagogical Strategy and Mobility
Medical Sciences Department, University of Aveiro

Abstract
Pedagogical Strategy Centers in biomedical faculties are increasingly vital for enhancing educational quality and students' success by providing faculty and students with resources, training, and strategies to improve teaching effectiveness and learning outcomes. These centers aim to promote innovative teaching practices, foster a positive learning environment, and encourage continuous professional development to ensure student success and engagement. This work will specifically address the activities carried out by the Center for Pedagogical Strategy and Mobility of the Department of Medical Sciences (DCM), established in May 2024, highlighting its inclusive approach aimed at driving educational improvement.

Center organization and Main objectives

The Center for Pedagogical Strategy and Mobility was intentionally structured to include faculty members, technical staff, and students, adopting an inclusive approach that recognizes the importance of multiple perspectives in the educational process. This diverse structure enables a holistic view of pedagogical needs and fosters a sense of shared responsibility for teaching quality.

The main objectives are:

Educational Improvement
by enhancing the overall quality of teaching

Interdisciplinary Collaboration
by promoting shared responsibility

Faculty Development
by enhancing teaching methodologies

Diagnostic assessment

The initial activities involved a comprehensive diagnostic assessment of the current state of pedagogical practices within the DCM. This process was essential for gaining a deep understanding of existing strengths and identifying specific areas requiring development .

Strategic Intervention Areas

Based on the diagnostic assessment, the Center for Pedagogical Strategy and Mobility has identified priority areas for strategic intervention. These areas were selected by priority in improving educational quality and by the potential impact on students' success (Fig. 2).

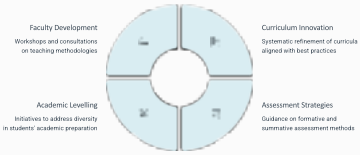


Fig.2. Intervention areas.

Planning

After identifying the priority areas, the Center for Pedagogical Strategy and Mobility developed evidence-based measures for impactful improvements. This process involved a review of the scientific literature on biomedical education and the adaptation of proven practices to the specific context of the DCM (Fig. 3).



Fig.3 Planning process.

Implementation Methodologies

We adopted carefully planned implementation methodologies to ensure the effectiveness of the interventions. The phased approach allowed for progress monitoring and adjustments as needed, while continuous feedback ensured that the needs of all stakeholders were considered (Fig. 4).



Fig.4 Implementation Methodologies



Impact Assessment

An evaluation system was implemented to measure the impact of the interventions. This evaluation used quantitative and qualitative methods to capture both measurable outcomes and the subjective experiences of the participants, providing a comprehensive view of the implemented measures (Fig 5).



Fig.5 Impact assessment.

1st year results

Implemented Actions

- Pedagogical project submitted and approved by the NEA.
- Curriculum modifications planned and submitted to the UA Pedagogical Council to replace PBL with TBL in three curricular units.
- Peer teaching implemented in collaboration with NECIB.
- Strategic coordination of teaching assignments across all departmental courses.
- Engagement of faculty members involved in teaching development activities.

Observed Outcomes

- Progress in key educational quality indicators: student satisfaction and academic performance.
- Increase in faculty involvement in professional development and adoption of innovative teaching methodologies.

Conclusions

The results achieved so far are encouraging and provide a solid foundation for future iterations.
The Center for Pedagogical Strategy and Mobility will continue to refine its approaches based on the lessons learned, gradually expanding the scope of interventions and sharing best practices with other departments.

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

universidade de aveiro
7ª edição
2 - 3 julho'25
forum@ua teaching & learning
fórum de ensino & aprendizagem@UA

Enhancing knowledge and professional skills through escape rooms in medical embryology

Célia Azevedo Soares, Juliana Sá, João Firmino Machado
Mestrado Integrado em Medicina, Departamento de Ciências Médicas , Universidade de Aveiro

Resumo / Abstract

Embryology often presents a challenge in undergraduate medical curricula, frequently being perceived by students as a tangential subject.
To address this, the Integrated Master in Medicine program at Universidade de Aveiro has implemented a novel pedagogical approach, integrating gamification exercises subsequent to traditional expository embryology classes. This initiative aims to deepen students' understanding of embryological concepts and foster the development of essential professional skills.
Our innovation centers on the design and implementation of sequential, collaborative escape rooms, structured across three distinct levels. Level one focuses on foundational theoretical embryology, incorporating games such as crosswords for word recognition and dominoes for concept definition. This initial stage solidifies basic knowledge in an engaging format. Level two introduces a clinical dimension to embryology to solve clinically relevant scenarios. This encourages active learning and reinforces the practical application of embryological knowledge. Finally, Level three emphasizes cooperative problem-solving. Students engage in collaborative activities to decipher the ultimate clue, leading to the password that unlocks a safe and concludes the escape room.
Throughout the design and execution of these gamified activities, a deliberate focus was placed on cultivating key competencies within the student cohort. These include time management, collaboration, efficient bibliography utilization, and problem-solving.
Preliminary observations suggest that this gamified approach not only enhances knowledge retention in embryology but also effectively develops crucial professional skills, thereby enriching the overall medical education experience.

Recognizing escape rooms as a key teaching strategy in higher education

Escape rooms require students to actively participate, collaborate, and apply knowledge to solve puzzles, fostering deeper engagement and more effective retention of subject matter compared to traditional lecture-based methods
Escape rooms could offer a dynamic and interactive way to teach embryology, a subject that is often perceived as complex or overlooked in medical training, thereby increasing student interest and motivation to engage with the material.

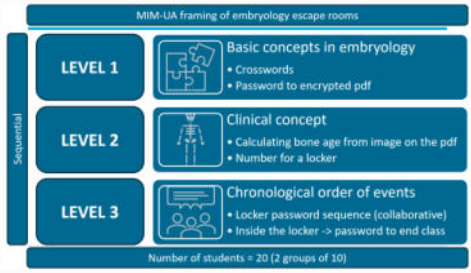


Fig.1 Framing of the escape rooms of medical embriology to support the organization of each class

Two-phase embryology class: conventional exposition and escape room experience

We created a learning experience in the classroom dividing the lecture in two phases:
First Phase: students begin with a traditional lecture session that introduces fundamental embryology, providing a solid foundation for understanding developmental processes.
Second Phase: following the lecture, students participate in an escape room activity that requires them to apply and reinforce their newly acquired knowledge.
This two-phase approach combines the clarity and structure of classic teaching with the active, immersive experience of escape rooms, fostering deeper comprehension and greater enthusiasm for embryology among students.

Curating strategic content for the escape room

Effective escape room design begins with deliberate content curation. During the planning phase, a key decision involved defining the specific concepts to include in the game, with division in:

- **Essential foundations**: reinforcing critical core concepts.
- **Enrichment opportunities:** introducing supplementary topics for broader understanding.
- **New lenses**: different perspectives of the concept not included on the exposition class.

Designing a progressive learning journey in three levels

Our embryology escape rooms are designed to have a sequential aspect divided in three levels:

Level 1: Focuses on theoretical basics through solidifying core knowledge.

Level 2: Integrates a clinical dimension, requiring students to solve scenarios, reinforcing practical application and active learning.

Level 3: Culminates in a cooperative challenge where students decipher clues collaboratively to unlock the final password, emphasizing teamwork.

Enhancing learning selecting game mechanics for specific objectives

Each game mechanic is purposefully selected to meet precise student learning objectives and optimize knowledge acquisition. Examples include: crosswords for vocabulary recall, dominoes for concept definition and matching, and embryology Pictionary for anatomical visualization and orientation.

Tailoring skills training to students needs

Gaining insights into each student cohort allowed us to thoughtfully integrate the development of specific professional skills, recognizing their importance for future practice:

- Cooperation: Fostered through Level 3's cooperative challenge, where groups must collaborate to access the final escape password.
- Problem-solving: Enhanced by designing new levels where the next steps aren't obvious, encouraging students to actively deduce the game's progression.
- Time management: Developed through the inherent time pressure of the escape room, necessitating efficient strategic planning.
- Consulting the recommended bibliography: Addressed a identified gap; games requiring time-pressured bibliography consultation cultivate rapid and effective information retrieval from scholarly sources.

Conclusion

Our escape room approach successfully transformed medical embryology from a perceived "tangential" subject into an engaging, dynamic, and memorable learning experience.

Beyond knowledge retention, the sequential, game mechanics, and collaborative design actively cultivates critical competencies such as cooperation, problem-solving, time management, and efficient bibliography consultation.

Initial aims for content mastery evolved into a profound recognition that experiential gamification offers a unique and effective means of preparing future clinicians with essential professional skills.

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

universidade de aveiro
7ª edição
2 - 3 julho'25
forum@ua teaching & learning
fórum de ensino & aprendizagem@UA

The good life on Campus:

Linking Emotions, Relationships, and Academic Thriving

Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo
DCSPT, CIPES, University of Aveiro

1. Abstract

Subjective well-being (SWB), encompassing life satisfaction, positive affect, and negative affect has become a central focus in positive psychology and in student success research (1). Rather than defining a "good life," SWB research examines how individuals cognitively and emotionally evaluate their own lives. In higher education, elevated SWB is linked to improved academic performance (2–5), engagement (5,6) , motivation (7,8) , and self-regulation (9). Conversely, negative affect correlates to dropout risk, lower academic success and engagement (9–11) . This study will analyze longitudinal data from the University of Aveiro using the Satisfaction With Life Scale (SWLS) and the Scale of Positive and Negative Experience (SPANE) to explore how SWB dimensions relate to perceived satisfaction with the relationship with professors and peers. Findings will inform targeted interventions, drawing on evidence-based practices such as gratitude journaling (12), mindfulness (13) and strengths-based exercises (14) to enhance student well-being and academic achievement.

2. Why Is the Transition to University a Critical Period?

The transition to university coincides with a critical developmental stage (emerging adulthood) marked by increased autonomy, identity exploration, and neurological changes that heighten sensitivity to stress. During this time, students are expected to manage responsibilities such as academic workload, social integration, financial independence, and often living away from family support for the first time (1).These stressors occur at a moment when young adults are at the peak age of onset for mental health disorders, particularly anxiety, depression, and substance use disorders. Mental health difficulties during this period are linked to academic underachievement, increased dropout risk, and long-term negative outcomes on well-being and employment (1).Recent studies show that over 60% of university students meet the criteria for at least one mental health problem, a nearly 50% increase since 2013. Specifically, 44% report symptoms of depression, 37% experience anxiety, and 15% have seriously considered suicide, marking the highest rates ever recorded in student populations (2). In Portugal, a national study by Amaro et al. (2024) with 3,399 students found that 75% showed mild to severe symptoms of anxiety, and 61.2% reported depressive symptoms (3).Given these rising mental health challenges, universities are starting to focus not only on treating problems but also on promoting student well-being. Recent research shows that helping students feel happier, more satisfied, and emotionally balanced can support both mental health and academic success (4). This has led to growing interest in studying Subjective Well-Being (SWB) as a key factor in students' overall development.

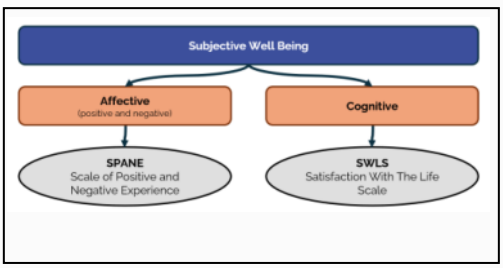


Fig.1 Dimensions of Subjective Well-Being: Affective and Cognitive Components

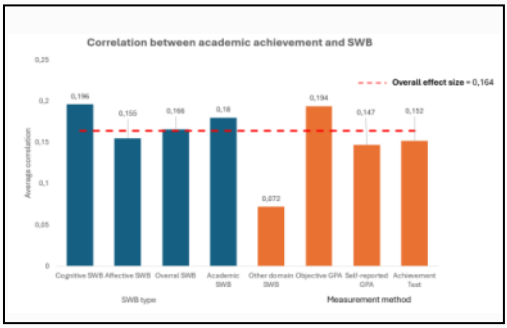


Fig.2 Average correlations (r

3. What Is Subjective Well-Being (SWB)?

Subjective Well-Being (SWB) is a broad term that refers to how people evaluate their own lives, both in terms of emotions and satisfaction (5). SWB includes two main components: a cognitive dimension, called life satisfaction, and an affective dimension, made up of positive and negative emotions (see Figure 1). Life satisfaction involves people reflecting on their lives and judging whether they are meeting their personal goals or expectations. Emotions refer to how often individuals experience pleasant or unpleasant feelings in daily life.

4. How Do We Measure Subjective Well-Being in Students?

Two important tools used to measure SWB are the Satisfaction With Life Scale (SWLS) and the Scale of Positive and Negative Experience (SPANE).The SWLS (6) asks students to rate statements like "In most ways, my life is close to ideal" on a 7-point scale. It captures a global judgment of life satisfaction based on personal goals and values. The SPANE (7) measures how often students experience a range of emotions, positive (e.g., joy, contentment) and negative (e.g., sadness, anger), over the past four weeks. Both scales have shown strong psychometric properties and have been validated in several countries, including Portugal (8, 9), with good reliability and validity in student populations.

5. How Is SWB Related to Academic Outcomes?

Several studies have found that SWB is linked to important academic outcomes. Students with higher life satisfaction tend to perform better academically (10–13) and show greater engagement (13, 14). Those who experience more positive emotions often achieve higher grades (11), regulate their behavior more effectively (15), and display more autonomous motivation (16, 17). In contrast, students with negative emotional experiences are more likely to underperform (15, 18), disengage (19), and lack motivation (20).A recent meta-analysis (21), combining data from 47 studies and nearly 39,000 participants, confirmed a small to moderate positive correlation (r = .164) between SWB and academic achievement. This relationship was stable across demographics (age, gender, country) and measurement methods (objective GPA, subjective GPA, standardized tests), highlighting SWB as a meaningful and consistent factor in student success.

6. What Will Our Study Explore?

This study will analyze longitudinal data from the University of Aveiro using the SWLS and SPANE to explore how different dimensions of SWB relate to students' satisfaction with their relationships with professors and peers. The findings may inform practical, evidence-based interventions.

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo

universidade de aveiro
7ª edição
2 - 3 julho'25
forum@ua teaching & learning
fórum de ensino & aprendizagem@UA

Student Engagement: Between Institutional Practices and Academic Achievement

Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo
DCSPT/CIPES/DEP/CIDTFF, Universidade de Aveiro

Abstract
Earning a degree is associated with cognitive, social, and economic benefits for individuals, their families, and society at large (1,2). Academic achievement in higher education is shaped by a complex interplay between individual characteristics and institutional contexts (1,3). Within this landscape, student engagement emerges as a critical mediating construct that not only links institutional practices to learning outcomes but also plays a pivotal role in student persistence and dropout prevention (4,5). Drawing on an extensive body of theoretical and empirical literature, including meta-analyses and integrative reviews, this paper frames engagement as a multidimensional process encompassing behavioral, emotional, and cognitive dimensions. We argue that institutional practices such as formative feedback, collaborative learning, faculty-student interaction, and peer collaboration can meaningfully enhance engagement, which in turn fosters both academic success and sustained enrolment. This theoretical synthesis contributes to a more integrated understanding of how engagement operates at the intersection of achievement and retention, offering insights for the development of institutional environments that support long-term student success.

Student Engagement Mediating Academic Persistence and Success

Higher education has long been associated with a range of individual and societal benefits, including cognitive development, improved economic opportunities, as well as increased civic engagement (1,2). However, these outcomes largely depend on students' sustained enrollment and academic success, both of which are shaped by a complex interplay of personal and institutional factors (1,3). Despite significant expansion in tertiary education, with increased enrollment and graduation rates, student attrition remains a concern (4,6). In addition to everyday demands, students often face ongoing academic pressures, learning challenges, financial strain, social isolation, and difficulties related to cultural/social adjustment. These stressors can result in psychological distress and hinder academic performance. Notably, such difficulties arise as students are also navigating a critical developmental stage: emerging adulthood (7). Recognizing these challenges, institutions and scholars have long been committed to ensure that students, once enrolled, remain and successfully complete their studies (1,2). Within this context, the concept of student engagement has gained prominence as a key construct for understanding how individual and institutional factors jointly influence learning and persistence (8). Student engagement refers to the extent of an individual's active involvement in learning activities. Broadly, it includes motivation, effort, concentration, participation in academic and extracurricular activities, and interactions with peers and faculty (9).

Conceptualizing Student Engagement

Research has defined student engagement in various ways (10), with some scholars referring to it as a "meta-construct" (9) encompassing multiple dimensions. Kahu (11) identified four distinct perspectives from which engagement has been studied: behavioral, psychological, sociocultural, and holistic. These conceptualizations underscore the multifaceted and dynamic nature of engagement. While multiple definitions and frameworks have emerged in the literature, this paper adopts a conceptualization that identifies three core dimensions of engagement: emotional, behavioral, and cognitive (8,9). These dimensions are interdependent and shaped by both individual characteristics and institutional practices. Emotional engagement reflects students' affective reactions to learning and the academic community, including their sense of belonging and the value attributed to education (8,9). Behavioral engagement refers to students' persistence, participation in academic and extracurricular activities, as well as adaptive actions within the educational setting (8,9). Cognitive engagement encompasses students' self-efficacy, use of regulatory strategies, learning expectations, and their investment in the learning process (8,9). Although some scholars, such as Reeve (12), propose a fourth component (agentic engagement, which captures students' proactive efforts to enrich their learning experience) our research and review of the literature suggest that the three-dimensional model offers a more coherent and widely supported framework for understanding student engagement.

Theoretical and Empirical Support

The significance of student engagement is well articulated in foundational theoretical models. Astin's (13) theory of student posits that the quantity and quality of students' investment in academic and extracurricular activities are key predictors of their development and success. Similarly, Tinto's (14) model of student departure underscores the role of academic and social integration in influencing students' decisions to persist. Both frameworks position engagement as a mediating mechanism through which institutional conditions and pedagogical strategies impact learning outcomes and retention. Contemporary research continues to affirm the central role of engagement. For example, Borja-Gil et al. (4) identify emotional and cognitive engagement as strong predictors of student persistence, particularly in post-pandemic contexts. Likewise, van Kessel et al. (5) highlight the importance of inclusive and formative institutional practices in promoting engagement among diverse student populations, including non-traditional and first-generation learners.

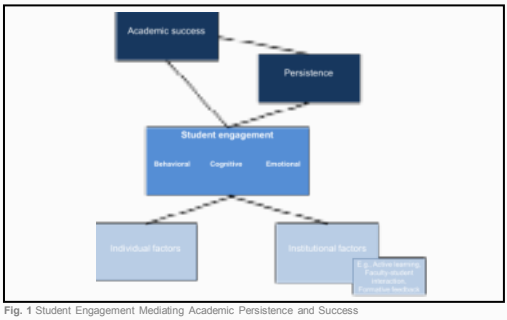


Fig. 1 Student Engagement Mediating Academic Persistence and Success

Conclusions

The theoretical premise guiding this research is that student engagement operates at the intersection of achievement and retention. By integrating theories of learning, motivation, and institutional practice, it provides a holistic perspective on how educational structures can promote sustained academic success. Grounded in this theoretical orientation, we examine institutional practices that have consistently been shown to foster deeper and more sustained engagement, such as active learning, timely and formative feedback, meaningful faculty–student interaction, and structured peer collaboration (1,5). These practices transform students from passive recipients into active participants in their education and enhance both motivation and intellectual investment.

References

1. Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature. National Postsecondary Education Cooperative.
2. Mayhew, M. J., Rockenbach, A. N., Bowman, N. A., Seifert, T. A., Wolniak, G. C., Pascarella, E. T., & Terenzini, P. T. (2016). How college affects students: Volume 3: 21st century evidence that higher education works. Jossey-Bass.
3. Schneider, M., & Preckel, F. (2017). Variables associated with achievement in higher education: A systematic review of meta-analyses. Psychological Bulletin. Advance online publication.
4. Borja-Gil, A., Oviedo-García, M. Á., Castellanos-Verdugo, M., & Vega-Vázquez, M. (2024). Engagement and commitment in higher education: Looking at the role of identification and perception of performance. European Journal of Education, 59(1), 123–140.
5. van Kessel, G., Ryan, C., Paras, L., Johnson, N., Zariff, R. Z., & Stallman, H. M. (2025). Relationship between university belonging and student outcomes: A systematic review and meta-analysis. The Australian Educational Researcher.
6. Aina, C., Baici, E., Casalone, G., & Pastore, F. (2022). The determinants of university dropout: A review of the socio-economic literature. Socio-Economic Planning Sciences, 79, 101102.
7. Arnett, J. J., Žukauskiene, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18-29 years: Implications for mental health. The Lancet Psychiatry, 1(7), 569–576.
8. Trowler, V. (2010). Student engagement literature review. Department of Educational Research, Lancaster University.
9. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. Review of Educational Research, 74(1), 59–109.
10. Lester, D. (2013). A review of the student engagement literature. Focus on Colleges, Universities, and Schools, 7(1), 1–8.
11. Kahu, E. R. (2013). Framing student engagement in higher education. Studies in Higher Education, 38(5), 758–773.
12. Reeve, J. (2012). A self-determination theory perspective on student engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), Handbook of research on student engagement (pp. 149–172). Springer.
13. Astin, A. W. (1999). Student involvement: A developmental theory for higher education. Journal of College Student Development, 40(5), 518–529.
14. Tinto, V. (1993). Leaving College: Rethinking the Causes and Cures of Student Attrition (2nd ed.). Chicago, IL: University of Chicago Press.

02

SkillsLab – Laboratório de Competências Transversais: um ecossistema para o desenvolvimento humano no Ensino Superior
Anabela Simões, Sónia Estrela, Dina Baptista

Contar para Comunicar - Escrita Criativa como Prática Interdisciplinar
Ana Estima, Alexandra das Neves

Em tempos desafiantes… cidadania ativa em forma de UC …
Marta Ferriera Dias

BEYOND THE PITCH - Game-based journeys in Entrepreneurship in an ETP
Marta Ferreira Dias, Marlene Amorim, Isabel Gomes, Ana Luísa Ribeiro, Yioula Melanthiou, Tharrenos Bratitsis, Audrone Daubariene, Asta Daunoriene and Urszula Ryciuk, Joana Carrilho, Verónica Kryvohubchenko, Cristiana Alves

Enhancing BioMedical Education: The DCM Initiative
Alexandra Nunes, Maria de Lourdes Pereira, Vanessa Póvoa, Matilde Cidrais and Margarida Fardilha

Enhancing knowledge and professional skills through escape rooms in medical embryology
Célia Azevedo Soares, Juliana Sá, João Firmino Machado

The good life on Campus: Linking Emotions, Relationships, and Academic Thriving
Bruno Fernandes, Gustavo Veiga, Cláudia Figueiredo

Student Engagement: Between Institutional Practices and Academic Achievement
Gustavo Veiga, Bruno Fernandes, Sara Diogo, Betina Lopes, & Cláudia Figueiredo