SUGESTÃO DE PESQUISA FUTURA PARA A PERSPECTIVA DE EDUCAÇÃO E CAPACITAÇÃO EM GESTÃO DE PROJETOS.

SUGGESTED FUTURE RESEARCH FOR THE PERSPECTIVE OF EDUCATION AND CAPACITATION IN PROJECT MANAGEMENT.

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SUGESTÃO DE PESQUISA FUTURA PARA A PERSPECTIVA DE EDUCAÇÃO E CAPACITAÇÃO EM GESTÃO DE PROJETOS.

Objetivo do estudo
Identificar a aprendizagem baseada em projetos e suas integração com abordagens gamificadas e pedagogias ativas, principalmente no contexto de projetos gerenciamento.

Relevância/originalidade
Este estudo destaca a necessidade de integrar mais profundamente educação, treinamento e gestão de projetos, enfatizando a importância da avaliação a longo prazo e adaptação contextual para melhorar a eficácia organizacional e o sucesso dos projetos.

Metodologia/abordagem
A metodologia inclui uma revisão de literatura focada na integração de educação, treinamento e gestão de projetos, seguida de estudos de caso e análises empíricas para avaliar impactos a longo prazo e adaptações contextuais em ambientes organizacionais.

Principais resultados
O estudo identificou 103 artigos e 41 sugestões de pesquisa futura, destacando a integração de educação, treinamento e gestão de projetos, especialmente através do aprendizado baseado em projetos.

Contribuições teóricas/metodológicas
O estudo mapeia tendências como aprendizado baseado em projetos e gamificação, contribuindo para a teoria da educação em gestão de projetos, e sugere novas direções de pesquisa, combinando ou criando novas dimensões de estudo.

Contribuições sociais/para a gestão
O estudo promove métodos inovadores como aprendizado baseado em projetos e gamificação, aprimorando habilidades transversais, empregabilidade, e eficiência na resolução de problemas reais, beneficiando instituições, professores, alunos, profissionais de gestão de projetos e a sociedade.

Palavras-chave: Gerenciamento de projeto, Aprendizado baseado em projeto, Conhecimento em projetos, Capacidade em projetos

SUGGESTED FUTURE RESEARCH FOR THE PERSPECTIVE OF EDUCATION AND CAPACITATION IN PROJECT MANAGEMENT.

Study purpose
Identify project-based learning and its integration with gamified approaches and active pedagogies, mainly in the context of project management.

Relevance / originality
This study highlights the need to more deeply integrate education, training and project management, emphasizing the importance of long-term assessment and contextual adaptation to improve organizational effectiveness and project success.

Methodology / approach
The methodology includes a literature review focused on the integration of education, training and project management, followed by case studies and empirical analyzes to assess long-term impacts and contextual adaptations in organizational environments.

Main results
The study identified 103 articles and 41 suggestions for future research, highlighting the integration of education, training and project management, especially through project-based learning.

Theoretical / methodological contributions
The study maps trends such as project-based learning and gamification, contributing to the theory of project management education, and suggests new research directions, combining or creating new study dimensions.

Social / management contributions
The study promotes innovative methods such as project-based learning and gamification, improving transversal skills, employability, and efficiency in solving real problems, benefiting institutions, teachers, students, project management professionals and society.

Keywords: Project Management, Project-based Learning, Project knowledge, Project capacity

SUGGESTED FUTURE RESEARCH FOR THE PERSPECTIVE OF EDUCATION AND CAPACITATION IN PROJECT MANAGEMENT.

1 INTRODUCTION

Project management is one of the most popular professions around the world. Consequently, project management education has reached its peak due to its demand in the industry. However, research shows that teaching in project management focuses too much on project management methodologies. (Tan & Huet, 2021).

Likewise, industry and higher education increasingly use online environments due to digitalization. As a result, learning experiences in these new digital learning ecosystems as communities must be critically re-examined (Mielikäinen & Viippola, 2023). Several implementation challenges are associated with project-based learning (Hussein, 2021).

The integration of production and education represents a common paradigm for the development of professional education worldwide. Project-based teaching serves as a crucial pedagogical model. However, the manifestation of this model in professional undergraduate institutions has not yet reached the desired state of integration (Wang et al., 2023).

As well, the complex contemporary scenarios in which research and innovation activities are carried out in academic institutions change the definition of appropriate management and administration approaches (Santos et al., 2022). And business schools also aim to educate and train the managers of tomorrow, who will be responsible for leading their organizations towards success (Holzmann, 2021).

For Guraziu, 2023, the development of transversal skills that enhance sustainable employability are possible with the use of project management as a pedagogical device for higher education students. Especially because project delivery organizations need to develop a competitive advantage against new entrants (Salwan et al., 2023).

Software applications in educational technology have been a strong driving force for the success of online learning at all levels (Wang-Trexler, 2021). The rapid growth of digital technologies, as well as the amount of data that devices and applications collect daily, are increasingly leading organizations to radically transform their business models (Marnewick & Marnewick, 2022).

Research on game-based learning methods shows that they can increase student motivation and learning in the context of higher education. However, there is still no clarity on how game- based learning methods can be used in project management education (Jääskä et al., 2022).

However, with the popularity of educational evaluation studies, researchers have begun to extract data from texts to provide useful information to those interested in education (Wang et al., 2022).

Several aspects of project management education in contemporary contexts can be found in the literature. There is concern about the predominance of methodologies to the detriment of pedagogy in teaching this area. The transition to online environments in education is also discussed, revealing challenges in implementing project-based learning in new digital ecosystems. The integration of industry and education is seen as essential, although the project-based teaching model still needs improvements.

Furthermore, the application of game-based learning methods underscores the need for clearer use in project management education. Finally, data-driven educational evaluation is growing, offering valuable insights for those in the educational field.

Due to the number of dimensions that can relate education to project management, available in the literature, this systematic literature review aims to first identify the researched dimensions and then relate dimension suggestions with future studies. In this way, it will be possible to continue and make knowledge on the topics more robust. For academic purposes, the research suggestions will constitute a theoretical basis and for education and project management practitioners insights to adapt in their courses or organizations.

2 THEORETICAL FOUNDATION

Project-based learning is applied in various disciplines around the world and its benefits are well known and researched (Marnewick, 2023). At a high level, project management is not yet digitalized, but technologies are used as tools to optimize project management processes (Marnewick & Marnewick, 2022). Project-based teaching serves as a crucial pedagogical model (Wang, 2023).

For Hellström et al., 2023, project management education is suitable for active learning through serious games, and many researches have been published on the use of serious games in project management education. Furthermore, serious games can lead to educational changes, such as the transition to active pedagogies, the development of new skills, such as interpersonal skills, and changes in the teacher-student relationship (Jaccard et al., 2022).

However, there are positive and negative student perceptions related to the applied game- based learning method, which influenced students' motivation to study and learn project management phenomena. Game-based learning solutions can be used to motivate students and prepare them to deal with uncertainty, like in real-life projects (Jääskä et al., 2022).

Toader et al., 2023, indicated significant differences in some items related to skills that can be developed through participation in educational games: communication, empathy, awareness, problem solving, productivity at work and time management, but also items that help students understand the importance of some aspects related to project management: productivity, team size, time management and request tracking.

Project-based learning and gamified learning have been two effective learning approaches, leading to innovative exploration of combining both to improve learning outcomes. Gamified approaches to project-based learning can be divided into four types of gamification: structure, content, integration, and activity (Huang et al., 2023).

Key factors in research projects lead to questioning the applicability of standard project management methodologies and exploring optimal organizational approaches to supporting projects (Twohig et al., 2023). But, despite the difficulties in learning the subject, students ended up being able to obtain a conceptual and motivational understanding, due to the flexible integration of teachers, practical laboratory work, the use of information technology and project-based learning (Awad, 2023).

Universities should include vocational education at the beginning of the qualification, so that preparatory skills and knowledge are developed. The importance of perceived employability in relation to project management and how employability differs between industries and types of projects are also items that are part of students'

perception during the courses (Gilbert et al., 2022).

Presenting the lessons learned in the creation of fundamental integrative projects as tools for the design and control of processes, generates significant improvement in the competencies defined by the teaching staff (Ocampo-López et al., 2022). The use of social media in learning communities also contributes, as it stimulates learning performance within teams (Chen et al., 2023).

Another set of studies on knowledge management indicates that it improves the organization's talent-driven learning strategy and increases the ability of individuals to learn faster and gain sustainable competitive advantage in a fast-paced, ever-changing environment (Anshari & Hamdan , 2022). The integration of knowledge provides positive learning results (Bes-Piá et al. 2023).

General project planning, definition of project scope, planning, and analysis of the work involved, project implementation, presentation of study results and project evaluation are steps for project-based learning management (Sittisak et al., 2022). Using a project-based learning methodology, it is possible to connect knowledge between disciplines and use transversal skills (Bes-Piá et al., 2023).

Students benefited from a formal approach when subjected to project-based learning. They acquire diverse skills due to project-based learning that can be applied directly in the workplace (Marnewick, 2023). Students positively perceive project-based learning in an online environment. However, there are problems with social interactions and the actual application of learned knowledge and skills (Mielikäinen & Viippola, 2023).

It is important to highlight that project-based learning, requires a method for its implementation. Researches revealed that risk of dynamics groups and the risk of teacher training are the two main risks in implementing project-based learning. While, the risk of anxiety and the risk of poor prior learning experience are relatively low-ranking risks (Pasi et al., 2022).

Another characteristic of business school learning environments is that they are generally highly structured, cognitively oriented, predictable and therefore not particularly conducive to the orchestration of disruptive experiences that can develop such skills (Blascoet al., 2022). Despite areas for improvement, instructors were in favor of project-based learning as a teaching strategy and the overall student experience is also positive (Alrasheed et al.,2023).

Meng et al., 2023, in the same direction, also diagnosed project-based learning as an effective pedagogy for instructors to help students learn interdisciplinary knowledge, problem- solving skills, ways of thinking and collaborative practices through resolution problems in a real- world context.

And yet, according to Kemaloglu-Er & Sahinos, 2022, project-based learning has affected students' progress in multidimensional ways. Student interest and confidence increased. Furthermore, it was discovered that students developed skills related to real life, such as time management, creativity, autonomous decision-making, oral presentation and computer use.

The pedagogical value of the learning environment, as it provides multiple pedagogical benefits, has a positive effect on student engagement (Sofias & Pierrakeas, 2023). In the same direction, greater teaching efficiency was proven using project-based learning compared to traditional verbal-visual teaching. Project-based learning has its place among teaching methods, as it can also have other advantages over traditional teaching (Maros, 2023).

The complex contemporary scenarios in which research and innovation

activities are carried out in academic institutions require the definition of appropriate management and administration approaches (Santos et al., 2022). In this sense, Palacio Sprockel et al., 2022, identified dimensions of innovation in educational management: transformations in the functions of practitioners, new practitioners who disrupt paradigms, processes, assessments, innovation strategies in communication in education.

It is also possible to consider redesigning university courses that deal with open-ended problems, increasing students' ability to deal with uncertainty and ambiguity (Pereira Pessoa, 2023). And with regard to increasing students' employability, the management of learning projects proves to be effective, promoting a process of critical reflection that allows you to develop a sustainable career aligned with your personal expectations (Guraziu, 2023).

Regarding project evaluation, this activity has been shown to be effective in helping students develop, reflect and gain confidence in their skills, time management, problem solving, interpersonal skills and autonomy (Amorati et al., 2022). In the study by Bes-Piá et al., 2023, the organization and development of the activity of a new program with project-based learning methodology were positively evaluated, highlighting the importance of teacher evaluation.

Future agile education could be improved to strengthen the sustainability of agile education, aiming to meet industries' growing demand for agile talent in non-software development domains (Dong, 2023). Project-based learning and the iterative nature of agile as an approach to developing the artifact complement each other (Marnewick, 2023).

Based on the literature review, the objective was to identify project-based learning and its integration with gamified approaches and active pedagogies, mainly in the context of project management. Benefits such as the development of transversal skills, interpersonal skills and preparation to deal with uncertainty stand out.

The importance of professional education at the beginning of qualification is highlighted, aiming to develop preparatory skills and the perception of employability in project management. On the other hand, studies highlight the need for careful implementation of project-based learning, with attention to the risks of group dynamics and teacher training.

Innovative educational management is discussed in the articles, recognizing the need for appropriate approaches to deal with contemporary research and innovation challenges. And project-based learning is seen as an effective pedagogy for promoting interdisciplinary knowledge and practical skills in a real-world context.

In summary, the approach taken in the literature review highlights the effectiveness of project-based learning, its integration with the importance of practices in educational management and combined with project management concepts. However, the studies were carried out in several directions, this is important to highlight that project-based learning, educational management and project management are constructs that have relationships with several other concepts. Thus, the objective of this research is to present suggestions for future studies in a structured way. This research will be able to contribute to the conceptual theoretical advancement and practitioners will have more robust materials on the topics of project-based learning, educational management and project management.

3 METHOD

With the purpose of establishing the current state of academic productions on the topic, Creswell & Vergara, 2013 and with an exploratory nature enabling a better understanding (Creswell, 2007), this research carries out a systematic review of the literature, on the topic of research initiatives and emerging trends in education and capacitation, within the field of project management.

This research explorer articles published in the base Scopus, filtered as explained below and considering the premise where bibliographical research is considered a systematized study based on material published in newspapers, magazines, and electronic media (Creswell & Vergara, 2013).

For the initial search in the Scopus, the expression *((TITLE-ABS-KEY (education) OR TITLE-ABS-KEY (learning) OR TITLE-ABS-KEY (teaching) OR TITLE-ABS-KEY (capacitate) OR TITLE-ABS-KEY (capacitation)) AND (TITLE-ABS-KEY (project)) AND (TITLE-ABS- KEY (manag*))) AND PUBYEAR > 2017 AND PUBYEAR < 2024 AND (LIMIT-TO (SUBJAREA , "SOCI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (EXACTKEYWORD , "Project Management") OR LIMIT-TO (EXACTKEYWORD , "Project-based Learning") OR LIMIT-TO (EXACTKEYWORD , "Project Based Learning")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Portuguese") OR LIMIT-TO (LANGUAGE , "Spanish"))* was used.

The objective was to extract all publications containing the constructors of this research.

The string also filters articles under Social Science area, where the document kind is article, and a timespan from 2020 to 2023. Moreover, only publication in Journals and in final Publication status. Finally, only articles written in English, Portuguese (Brazil) and Spanish were accepted. A total of 301 articles were selected to be reviewed.

Dimension: "Education and capacitation perspective"

Title: 1. Future researches suggested for Education and capacitation perspective in project management

Title: 2 Final: Suggested Future Research for the Perspective of Education and Capacitation in Project Management.

Research Question: How can future research initiatives address gaps and emerging trends in the education and capacitation perspective within the field of project management?

Goal:

1. Look recent researches covering Education and Capacitation.
2. Map articles limit and future research suggestions
3. Cross future research suggestions with corpus, extracting the gap.

4. Propose a research roadmap, considering the gap mapped.

Start String:

((TITLE-ABS-KEY(education) or TITLE-ABS-KEY(learning) or TITLE-ABS-KEY(teaching) or TITLE-ABS-KEY(capacitate)or TITLE-ABS-KEY(capacitation)) AND (TITLE-ABS-KEY(project)) AND (TITLE-ABS-KEY(manag)))*

Bases: Scopus

Scopus Filters:

72.311 articles

Social
Science +
Article 2018 -
2024
Journal and Final Publication

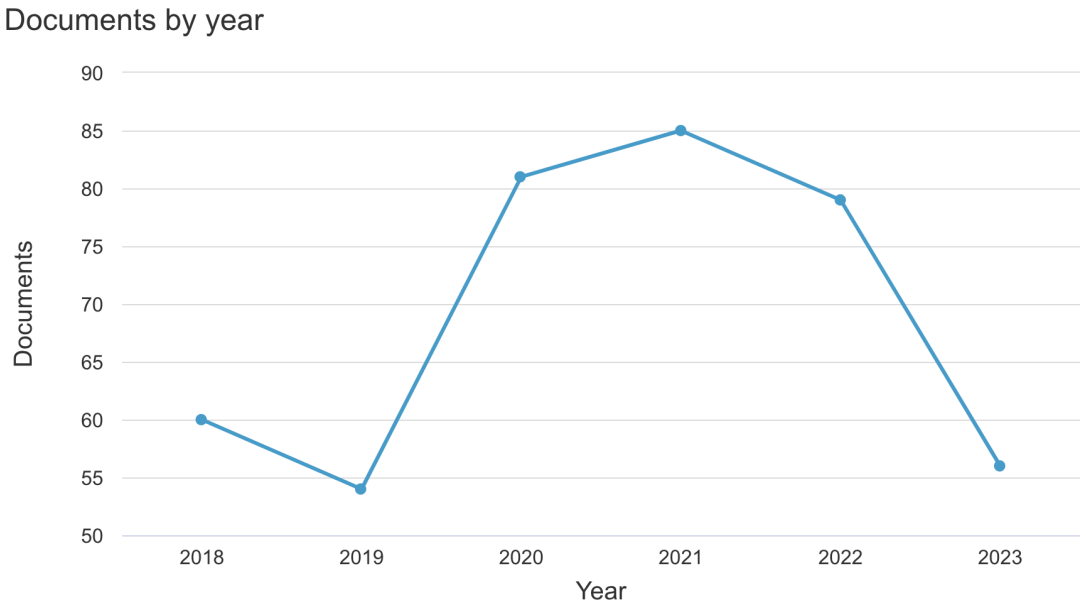
Keywords: Project Management, Project-based Learning, Project Based Learning Language: English, Portuguese and Spanish

Final string:

((TITLE-ABS-KEY (education) OR TITLE-ABS-KEY (learning) OR TITLE-ABS-KEY (teaching) OR TITLE-ABS-KEY (capacitate) OR TITLE-ABS-KEY (capacitation)) AND (TITLE-ABS-KEY (project)) AND (TITLE-ABS-KEY (manag*))) AND PUBYEAR > 2017 AND PUBYEAR < 2024 AND (LIMIT-TO (SUBJAREA , "SOCI")) AND (LIMIT- TO (DOCTYPE , "ar")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (EXACTKEYWORD , "Project Management") OR LIMIT-TO (EXACTKEYWORD , "Project-based Learning") OR LIMIT-TO (EXACTKEYWORD , "Project Based Learning")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Portuguese") OR LIMIT-TO (LANGUAGE , "Spanish"))

Corpus: 415 Refining:

PUBLICATION QUANTITY
+ Date range 2020 to 2023



Source: Scopus..

New string:

((TITLE-ABS-KEY (education) OR TITLE-ABS-KEY (learning) OR TITLE-ABS- KEY (teaching) OR TITLE-ABS-KEY (capacitate) OR TITLE-ABS-KEY (capacitation)) AND (TITLE-ABS-KEY (project)) AND (TITLE-ABS-KEY (manag*))) AND PUBYEAR > 2019 AND PUBYEAR < 2024 AND (LIMIT-TO (SUBJAREA , "SOCI")) AND (LIMIT- TO (DOCTYPE , "ar")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (EXACTKEYWORD , "Project Management") OR LIMIT-TO (EXACTKEYWORD , "Project-based Learning") OR LIMIT-TO (EXACTKEYWORD , "Project Based Learning")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Portuguese") OR LIMIT-TO (LANGUAGE , "Spanish"))

Current corpus: 301

4 MAIN RESULTS

The search string in the Scopus database resulted in an initial list of three hundred and two (302) articles. The abstracts of articles from this initial list were read with the primary objective of identifying articles prominently featuring the constructs of education, training, and project management. The identified articles were grouped into a second list. Articles in the second list were scrutinized to discern future research suggestions.

A total of 103 articles were identified, each focusing on the core constructs of this literature review, specifically pertaining to education and project management, training and project management, or education, training, and project management.

However, the constructs under study here are associated with various perspectives such as transactive memory systems, specific formations (e.g., in engineering), the fourth industrial revolution, among others.

This realization evoked a dual sentiment: it was intriguing to discover the interrelation between education, training, and project management with numerous themes, yet this could potentially lead to a misalignment with the core objective, which is to pinpoint the directions for future study suggestions.

For a more methodical approach to this research, we divided the study into two dimensions. The first dimension is associated with technical issues like online classes, digitization, processes, machine learning, artificial intelligence, serious games, etc. The second part addresses sensory aspects such as satisfaction levels, enthusiasm, well-being, security, and team cohesion.

Possibly, project-based learning emerged as the most prominent theme for encompassing both technical and sensory elements. Project-based learning is an educational approach that places students at the heart of the learning process, emphasizing the practical application of knowledge. In this approach, students engage in significant real-world projects, applying concepts and skills learned in the classroom to solve concrete problems or create tangible outputs.

This research underscores that education, training, and project management are pertinent constructs for personal and professional development, as well as organizational success. For the purpose of this research, education is regarded as the process of acquiring knowledge and skills, training involves developing specific competencies for a given job or role, and project management entails the planning, execution, and control of projects.

Forty-one suggestions for future studies were identified; it's imperative that these directions undergo reassessment so that forthcoming studies are grounded in the articles that gave rise to these suggestions, thereby contributing to both literature and practice.

Table 1 compiles the findings of this literature review, highlighting key points of convergence and identifying the respective references.

HIGHLIGHTED CONCEPTS AND THEIR AUTHORS	
1. Longitudinal design to measure cause and effects, 2. compare organizational cultures in different countries.	Chen et al., 2023
1. Deepen and test the hypotheses that project management education can be transposed to the use of serious games in education in general.	Jaccard et al., 2022
1. skills in Knowledge Management and Industry 4.0, 2. evolution of skills, 3. knowledge of machines, 4. intuitive decision making, 5. rational decision making, 6. technological stress, 7. digital fluency, 8. innovation collaborative, 9. industrial policies, 10. human-machine interaction and 11. social systems	Anshari & Hamdan, 2022

1. the students' perspective in subsequent periods; 2. students highlighted skills during a given period and 3. feedback from product owners and mentors will be obtained.	Marnewick, 2023
1. digitalization in project management	Marnewick & Marnewick, 2022
1. explore creative approaches to improve agile engagement and appreciation all members in agile teams. 2. conduct a large-scale study to establish the significant causal impact of applying agile on team performance.	Dong, 2023
1. more research on project failure, 2. replicate and expand the current study, with empirical data evidence of project results (not surveys), 3. use of alternative machine learning methods alongside traditional parametric statistical techniques.	Strang & Vajjhala, 2023
1. teacher's point of view, 2. including serious PM games in a coherent approach to pedagogical scenarios, 3. on the implementation of learning in serious PM games.	Hellström et al., 2023
1. explorar dimensões de empregabilidade (collaboration, professional practice and standards, integration of theory and practice, informed decision making, lifelong learning e commencement readiness), 2. outros países, 3. continuar colhendo dados nos próximos anos.	Gilbert et al., 2022
1. same analysis conducted with a larger sample size, 2. extended over the years with different generations of students to obtain more evidence for the study.	Toader et al., 2023
1. to guide the design and implementation of gamified project-based learning (GPBL), 2. on the competence of GPBL teachers 3. theoretical foundations through interactive design for GPBL.	Huang et al., 2023
1. Integration of educational assessment with computerization 2. the needs of educational practice 3. national strategic development.	Wang et al., 2022
1. empirical study with real users 2. moderate support for teachers 3. promote student autonomy, 4. explore how to prepare pre-service and in-service teachers in a pedagogical and digital way.	Meng et al., 2023

Table 1: Source: Scopus prepared by the authors

5 THEORETICAL CONTRIBUTIONS

Conducting this study through a systematic literature review provides a significant contribution to scientific production by synthesizing and organizing existing knowledge in project management education. The use of diverse approaches and trends provides a solid foundation for researchers to explore suggestions for future studies and fill gaps in the field.

Furthermore, by identifying trends such as project-based learning and gamification, sustainability, innovation, processes, learning and training, the review contributes to the evolution of theory, presenting contemporary perspectives to improve educational approaches.

Taking into account the main construct, project management education, the analysis reveals valuable insights into the theory of project management education, highlighting the importance of integrating modern methodologies and focusing on the development of practical skills. And relating project management theory, the review highlights the relevance of modern pedagogical approaches, sustainability and innovation.

In this context, the article presents theoretical contributions, since in addition to mapping in current studies on education in project management the dimensions that researchers are interested in, it also projects new scientific research, both evolutionary in the same dimensions and proposing the combination of combination dimensions or even new dimensions that have been identified.

6 SOCIAL CONTRIBUTIONS FOR MANAGEMENT

When starting this research, it was possible to verify in the first articles that the theme of education has a very broad social aspect, even though our focus is education in project management, this study can contribute to educational institutions, organizations, teachers, students, practitioners of project management and the way society has the perception of the projects delivered.

Educational institutions need to innovate methods to be attractive, the integration of project-based learning and gamified approaches can contribute to the effectiveness of teaching methods. In the same direction, the development of university courses that deal with open problems, explore sustainable, agile, organizational themes and promote students' ability to deal with uncertainty and ambiguity are more prominent.

The contribution to students is numerous, such as the development of transversal skills, interpersonal skills, preparation to deal with uncertainty, increased interest, confidence and development of skills related to real life.

While for teachers, the recognition of project-based learning as an effective teaching strategy, appreciation of the integration of methodologies and technologies and the necessary care for implementing project-based learning and other teaching methods.

The study also suggests contributions for project management practitioners in the sense of applying technologies as tools to optimize education and project management processes. The use of serious games in project management education to develop competencies such as interpersonal skills and problem solving. Ultimately, promote the results of education, with recognition of the importance of employability.

To conclude, the contribution to society in the development of professionals,

participating in the workforce in the largest number of sectors. The innovative approach to educational management, promoting the sustainability of agile education and increasing efficiency in solving real-world problems.

7 CONCLUSIONS

Motivated by our Professor to write an article with the objective of presenting the current frontier of knowledge in project management education, we opted for a systematic review of the literature. This specific approach offers a comprehensive and organized analysis of existing research in a specific area, providing fundamental insights for the academic and professional community.

Education in project management is essential to train professionals to lead effectively, ensuring successful deliveries. The integration of modern methodologies and the emphasis on practical skills are fundamental to training highly qualified managers who are adaptable to the demands of the contemporary corporate environment.

We found that management education studies move towards the concepts of project-based learning, gamification, digitalization, innovation, sustainability, personal skills and participation in groups, most of the time related to positive aspects, but negative feelings such as Expectations regarding the safety of applying teachings in organizations are also part of the research.

The central objective of the study was achieved, we identified forty-one suggestions for future studies in different dimensions, an interesting point is the highlight of the suggestions for carrying out research on reflective skills of students and teachers that broaden the horizon of education and practice, this education in project management, both formal and personal relationship skills, can be improved during projects and between projects.

These suggestions for future studies, in addition to enriching the academic field, also provide practical guidance to improve the effectiveness of project management education. By focusing on the development of sustainable and renewable skills, it is expected to broaden the educational horizon, preparing professionals for present challenges, but also for the future demands of project management. Thus, project management education emerges as an essential catalyst for shaping the future of project management, promoting innovation, sustainability and professional excellence. Also, a dedicated etymological study could be held to identify similar dimensions and reduce the list.

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