



THE PDCA CYCLE AS A MANAGEMENT TOOL IN EDUCATION: Examining the Practical Application in a Language School**O CICLO PDCA COMO FERRAMENTA DE GESTÃO EM EDUCAÇÃO: Examinando a Aplicação Prática em uma Escola de Idiomas**CASTRO, Augusto Everton Dias¹**ABSTRACT**

This study addressed, through a bibliographic research combined with theoretical reflection, the application of the PDCA Cycle in the educational context, more specifically in a language school. The PDCA was explored as a tool for continuous improvement in education, highlighting the importance of each of its stages: planning, execution, checking, and action. Planning involves the collaborative setting of goals and delineation of strategies, with a focus on adaptation and flexibility based on students' needs. Execution is characterized by the implementation of the plan and results management, through the collection and analysis of data to inform educational practices. Assertive decision-making, evidence-based and aligned with educational objectives, is emphasized as crucial for effective educational management. Checking allows assessing the effectiveness of the adopted strategies and practices, through tools such as formative assessments and satisfaction surveys. The study concludes that the implementation of the PDCA Cycle can contribute significantly to the improvement of teaching and learning, recommending its adoption by more schools.

Keywords: PDCA Cycle. Educational Management. Educational Processes.

RESUMO

Este estudo abordou, por meio de uma pesquisa bibliográfica combinada com uma reflexão teórica, a aplicação do Ciclo PDCA no contexto educacional, mais especificamente em uma escola de idiomas. O PDCA foi explorado como ferramenta para a melhoria contínua da educação, destacando a importância de cada uma de suas etapas: planejamento, execução, verificação e ação. O planejamento envolve a definição colaborativa de metas e a delimitação de estratégias, com foco na adaptação e flexibilidade com base nas necessidades dos alunos. A execução é caracterizada pela implementação do plano e pela gestão de resultados, através da coleta e análise de dados para informar práticas educacionais. A tomada de decisões assertiva, baseada em evidências e alinhada com os objetivos educacionais, é enfatizada como

¹ Graduação em Enfermagem pela Universidade Federal do Piauí. Especialização em Saúde e Qualidade de Vida pela Faculdade de Educação e Tecnologia da Região Missioneira. Mestrando em Tecnologias Emergentes em Educação pela Must University. E-mail: augusto.everton@hotmail.com

crucial para a efetiva gestão educacional. A verificação permite avaliar a eficácia das estratégias e práticas adotadas, através de ferramentas como avaliações formativas e pesquisas de satisfação. O estudo conclui que a implementação do Ciclo PDCA pode contribuir significativamente para a melhoria do ensino e da aprendizagem, recomendando sua adoção por mais escolas.

Palavras-chave: Ciclo PDCA. Gestão Educacional. Processos Educacionais.

1 INTRODUCTION

Education, essential for socioeconomic and human development, faces challenges inherent to its own nature. The constant evolution of social needs, demographic changes, technological advances, and the demand for a more holistic formation are some of the issues that require an effective and adaptable educational management. Amidst this scenario, the PDCA Cycle (Plan, Do, Check, Act) emerges as a promising strategy, providing a systematic framework for the continuous improvement of educational management.

Originating in the field of quality management, the PDCA Cycle has been successfully applied across various sectors, including education. This management model, which encompasses the stages of planning, execution, verification, and action, has the potential to enhance the effectiveness of the educational process, aligning it with institutional objectives and promoting continuous improvement.

The adoption of the PDCA Cycle in education can offer significant benefits, including a greater alignment between educational activities and institutional objectives, the improvement of the effectiveness of teaching strategies, and the promotion of a culture of continuous improvement. In addition, the cyclical and iterative nature of PDCA allows for continuous adaptation and evolution, which are fundamental in a field as dynamic and complex as education.

However, the effective implementation of PDCA in education is not without challenges. Issues such as resistance to change, the need for appropriate training and resources, and the importance of an organizational culture open to continuous improvement are critical factors to be considered. It is crucial that educational managers are aware of these challenges and are prepared to face them in order to

reap the potential benefits of PDCA. Furthermore, the adaptation and application of this cycle in education can still be further explored in the literature.

This article aims to fill this gap, exploring the application and impacts of the PDCA Cycle in a language school. The methodology adopted for this study is bibliographic research combined with theoretical reflection, exploring both theoretical literature and existing case studies that illustrate the implementation of PDCA in education.

The objectives of this article are: to analyze how educational planning should be carried out in practice, considering the context of the PDCA Cycle; to investigate how the management of results can be carried out within language teaching institutions; to explore how language schools can make assertive decisions to guide student learning; and to verify how educational processes can be monitored to ensure they align with the institution's objectives.

In the end, it is expected that this work will contribute to the understanding of the PDCA Cycle as a valuable tool for educational management, providing practical and theoretical insights that can be applied by educational managers.

2. THE PDCA CYCLE IN EDUCATION

The PDCA Cycle, originated in the field of quality management by Deming (1986), has been applied across various sectors as an effective strategy for continuous improvement. In education, this cycle provides a structured framework for effective management, aligning the educational processes with the institutional objectives and promoting continuous adaptation and evolution (MINTZBERG, 1994). However, the application of the PDCA Cycle in education requires a clear understanding of its four stages: planning (plan), execution (do), verification (check), and action (act).

In the planning stage, educational objectives are defined, and the strategies to achieve them are outlined. This might involve analyzing existing data, identifying learning needs, setting goals, and creating a detailed action plan (FILIPE, 2023; FULLAN, 2007).

Execution involves implementing the action plan. In an educational context, this may include classroom teaching, assessing student progress, and adjusting teaching strategies as necessary. At this stage, it is critical that educators are flexible and adaptable, responding to students' needs and modifying their approaches as needed (RASZL et al, 2012).

Verification is the stage at which outcomes are evaluated against the objectives set out in the planning. In education, this may involve assessing student performance, analyzing the effectiveness of teaching strategies, and identifying areas for improvements (CAVALCANTI; GUERRA, 2022).

Finally, the action stage implies making adjustments based on the verification results. In education, this might mean revising curriculums, implementing additional training for teachers, or introducing new teaching technologies (SILVA et al., 2019). Action, in this context, aims to improve educational processes and ensure they align with the institution's objectives.

3. EDUCATIONAL PLANNING IN PRACTICE

Planning is a crucial step in the PDCA cycle and of utmost importance for educational management. According to Fullan (2007), effective educational planning involves defining clear goals and outlining strategies to achieve them. In the context of a language school, this may include linguistic proficiency goals, student engagement objectives, and curriculum progression milestones.

To begin with, goal setting should be carried out in collaboration with all stakeholders - including teachers, students, parents, and the broader community. This ensures that the goals are relevant, realistic, and aligned with the students' needs (RASZL et al, 2012). In a language school, goals might include reaching certain levels of proficiency in a foreign language, enhancing intercultural communication skills, or increasing student retention rates.

Once the goals are set, the next step is to develop strategies to achieve them. This may involve selecting suitable teaching materials, determining effective teaching methodologies, and preparing detailed lesson plans. It's important that teaching

strategies are adaptable and flexible, allowing adjustments based on student progress and needs (FILIFE, 2023).

For example, to achieve linguistic proficiency goals, the language school might adopt a communicative approach, focusing on practical language use and authentic interaction. This can be complemented by a variety of teaching materials, including textbooks, online resources, and authentic materials such as newspaper articles and videos.

Planning should also consider evaluation mechanisms to monitor progress towards goals (ALMEIDA, 2020). In a language school, this might include regular assessments of student progress, as well as constant feedback to support continuous learning.

4. EXECUTION OF RESULTS MANAGEMENT

Execution is the phase where the action plan developed in the planning stage is put into practice. For Mintzberg (1994), effective execution is characterized by action aligned with the established objectives and the ability to adapt to unexpected changes and challenges. In educational management, execution involves activities such as teaching, assessing student progress, and responding to emerging needs (RASZL et al, 2012).

In a language school, executing the plan could involve implementing new teaching strategies, administering regular assessments to monitor student progress, and conducting frequent feedback meetings between teachers and students. For execution to be successful, it is crucial that teachers are supported with adequate resources and are able to adapt their practices as needed to respond to the individual needs of students (ALMEIDA, 2020).

Results management, in particular, is an essential component of the execution phase. According to Filipe (2023), results management involves using data to inform educational practice and to assess progress towards the set objectives. In practice, this may involve using formative assessments to collect data on student performance,

analyzing this data to identify areas of strength and weakness, and using this information to adapt teaching practices.

In the language school, for example, teachers can use formative assessments, such as oral or written tests, to assess student proficiency in different aspects of the language. This data can then be used to adapt teaching practices, such as focusing on specific areas of the language where students are struggling, or to adapt teaching methods to meet the different learning needs of students.

5. ASSERTIVE DECISION-MAKING

Assertive decision-making is a fundamental element for success in educational management. The decision-making process involves selecting an option among several alternatives, based on relevant information and data (CAVALCANTI; GUERRA, 2022). In education, assertive decisions are those that are evidence-based, that consider student needs, and that are aligned with educational objectives (RASZL et al, 2012).

In practice, this may involve using student performance data to inform decisions about teaching strategies, or considering student feedback when deciding on changes in curricula or school policies. For example, in a language school, the management team can analyze formative assessment data to identify areas where students are struggling and then make decisions on how to adapt teaching practices or learning resources to better meet these needs.

Moreover, assertive decision-making in education also involves considering the broader context, including social, cultural, and political factors. This might mean taking into account the cultural diversity of students when deciding on teaching materials, or considering government education policies when developing strategic plans for the school (DUTTON; MENDES; VIEIRA, 2022).

Assertive decisions can also be facilitated by creating a school environment that promotes collaboration, reflection, and continuous learning. This may involve promoting a culture of open feedback, where teachers, students, and parents feel

comfortable expressing their opinions and ideas, and where continuous learning through experimentation and reflection is encouraged (FULLAN, 2007).

6. VERIFICATION OF EDUCATIONAL PROCESSES

Verification is a crucial stage in the PDCA cycle, allowing educational institutions to evaluate the effectiveness of their strategies and practices. This process involves collecting and analyzing data to determine whether objectives are being met and to identify areas that may require improvements (DEMING, 1986).

Various tools and methods can be used for verifying educational processes. A common example is formative assessment, which provides ongoing feedback on student progress and can help identify areas of difficulty that require attention (ALMEIDA, 2020). In the language school, formative assessment could include regular tests, student self-assessments, classroom observations, and feedback meetings between teachers and students.

In addition, student and parent satisfaction surveys can provide valuable information about perceptions of education quality and can help identify areas for improvement. These may include questions about the quality of teaching, the relevance of the curriculum, the adequacy of learning resources, and student well-being at school (GUIMARÃES; MONIZ; SANTOS, 2022).

Data analysis is a crucial aspect of verifying educational processes. This may include analyzing trends in student performance, comparing performance with established goals, and analyzing correlations between different variables, such as school attendance and academic performance (DUTTON; MENDES; VIEIRA, 2022).

7. FINAL CONSIDERATIONS

This study explored the application of the PDCA Cycle in education, focusing particularly on a language school. We found that the PDCA Cycle, when properly implemented, can be a powerful tool for continuous improvement in education. In particular, the study highlighted the importance of effective educational planning,

execution of results management, assertive decision-making, and verification of educational processes.

In the case of the language school, it became clear that each stage of the PDCA Cycle has a crucial role to play. Planning provides direction and objectives; execution and results management ensure these plans are put into practice and that progress is monitored; assertive decision-making allows the school to adapt and effectively respond to emerging needs; and verification ensures the school is achieving its objectives and identifies areas for improvement.

Thus, we conclude that the application of the PDCA Cycle in education, involving careful reflection, strategic action, rigorous monitoring, and continuous review, can contribute significantly to the improvement of teaching and learning. We recommend that more schools consider adopting this management model, as a strategy to promote excellence in education.

BIBLIOGRAPHIC REFERENCES

ALMEIDA, R. C. **O ciclo PDCA como ferramenta para uma gestão de qualidade na educação superior**. 2020. Dissertação (Mestrado em Educação) - Universidade Vale do Sapucaí, Pouso Alegre, 2020.

CAVALCANTI, L. M. R.; GUERRA, M. das G. G. V. Uso de modelo de utilidade para avaliação de cursos de graduação. **Avaliação**: Revista Da Avaliação Da Educação Superior (Campinas), v. 27, n. 3, p. 513-530, 2022.

DEMING, W. E. **Out of the crisis**. Cambridge: MIT Press, 1986.

DUTTON, D.; MENDES, M. S. L.; VIEIRA, V. S. Propondo um sistema de gestão ambiental para o ambiente escolar. **Research, Society and Development**, v. 11, n. 13, p. e63111334596, 2022.

FILIPE, A. D. S. **Impacto do ciclo PDCA na gestão da qualidade de uma organização escolar: Estudo de caso**. 2023. Dissertação (Mestrado em Gestão) - Instituto Universitário de Lisboa, Lisboa, 2023.

FULLAN, M. **The new meaning of educational change**. 4. ed. New York: Routledge, 2007.

GUIMARÃES, U. A.; MONIZ, S. S. O. R.; SANTOS, J. O. A análise PDCA como

ferramenta de suporte a instituição escolar. **Recima21 Revista Científica Multidisciplinar**, v. 3, n. 11, p. 1-6, 2022.

MINTZBERG, H. **The rise and fall of strategic planning**. Englewood Cliffs: Prentice Hall, 1994.

RAZSL, S. M. et al. Gestão da qualidade na educação. **E-Tech: Tecnologias para Competitividade Industrial**, p. 15-33, ed. especial, 2012.

SILVA, R. O. et al. O ciclo PDCA como proposta para uma gestão escolar eficiente. **Revista De Gestão E Avaliação Educacional**, v. 1, n. 1, p. 1–13, 2019.