Personalizing Learning Strategies for Students Failing in School

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ABSTRACT: This article explores personalization of learning as a strategy to help students who are failing, based on their individual preferences. By identifying learning styles (visual, auditory, kinesthetic), it highlights the importance of an adapted approach to meet the specific needs of each student. A personalized learning model is presented, emphasizing flexibility, engagement, and the use of technology to support learning. The article suggests concrete strategies, personalized tutoring and the formation of adapted learning groups. It also presents a case study that illustrates the effectiveness of these approaches. Finally, it emphasizes the importance of continuous assessment and feedback to adjust pedagogical approaches, the importance of regularly assessing student progress and collecting feedback to adjust methods, thus encouraging educators to adopt more personalized practices in order to promote the academic success of students in difficulty.

KEY WORDS: Personalization, Strategy, Failure, Learning Styles, Approach.

INTRODUCTION

Academic failure is a major challenge in the contemporary education system, affecting a growing number of students around the world. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020), nearly 258 million children and young people are out of school, and many of those in the classroom experience significant learning difficulties. These difficulties can result from a variety of factors, including unsuitable learning environments, a lack of pedagogical support, and teaching methods that do not take into account students' diverse learning styles and preferences (Felder & Silverman, 1988). Traditional education, often centered on a one-size-fits-all approach, may not meet the specific needs of students, especially those who find themselves failing. Studies show that adopting personalized learning strategies can play a crucial role in improving academic performance and student engagement (Tomlinson, 2014). Personalizing educational approaches not only makes it possible to meet the individual needs of students, but also to encourage greater motivation and understanding of the content (Gagné & Parks, 2013). This work aims to explore personalized learning strategies, based on student preferences, in order to combat academic failure. We will examine how an individualized learning model, which takes into account students' specific learning styles, interests, and needs, can be implemented to improve the engagement and outcomes of struggling students. By integrating personalized tutoring, the use of adaptive technologies and the formation of homogeneous learning groups, this work will highlight concrete and effective solutions to promote academic success.

THEORETICAL FRAMEWORK

Academic failure is a complex phenomenon that has significant repercussions both on students and on the education system. It refers to a situation where a student fails to achieve the expected academic results, often measured by insufficient grades, a lack of understanding of the content taught or the inability to progress in his or her learning. This notion goes beyond simple grades: it also includes aspects such as demotivation, dropping out of school, and difficulties integrating into the school environment. Consequences for students include lower self-esteem, increased anxiety and depressive disorders, and an increased risk of dropping out, which compromises their future prospects (Rivière, 1996). In addition, students who are struggling may develop gaps in foundational skills, making future learning even more difficult (Chamberland, C., & McAndrew, M. 2011). In terms of the education system, school failure entails additional costs for schools, which must invest in specific support programs and interventions (Larose, S., & Roy, R. 1993). It can also damage the reputation of schools and their overall performance, exacerbating educational inequalities (Mingat, 1994). In sum, school failure has profound implications that require special attention to foster equitable and inclusive education.

1. Factors contributing to failure

Academic failure is a complex phenomenon influenced by a multitude of interconnected factors. Among the main factors are individual elements such as lack of motivation and learning strategies, which can hinder students' academic success (Kwiek, M., & Roszka, W. 2024). Family factors, such as parental support and the home environment, also play a crucial role, as a stable and

supportive home promotes school retention (Blaya, 2010). In addition, socioeconomic conditions and school experiences, such as repeated failures or discipline problems, are often correlated with the risk of dropping out (Janosz, 2000). Finally, the school climate and the quality of teacher-student relationships can significantly influence student engagement and success (Galand, 2004). Academic failure is often the result of a combination of factors, which can be grouped into several categories, detailed in the following table:

Table 1: Factors that influence school failure

Family Environment Audebert, P. (2014).	Parental Support	A lack of support or encouragement from parents can affect the student's motivation.
	Socio-economic conditions	Students from disadvantaged backgrounds may face additional challenges, such as a lack of educational resources.
Motivation and Psychological State Ndagijimana, J. B. (2013).	Self-esteem	Low self-esteem can lead to feelings of helplessness and demotivation.
	Stress Management	Students who have difficulty managing the stress of academic demands may perform poorly.
Teaching methods Başkan, N. S. (2023).	Pedagogical approaches	Teaching methods that are too rigid or not adapted to students' learning styles can create barriers to learning.
	Lack of interaction	The lack of an interactive and engaging approach can lead to a lack of interest in the subjects being taught.
School and School Climate Debarbieux, É. (2015).	Classroom atmosphere	A negative school climate, marked by bullying or disrespect, can hinder student engagement.
	Educational Resources	Limited access to quality educational resources can also impact academic performance.
Learning difficulties	Cognitive impairment	Difficulties such as dyslexia or ADHD (attention deficit hyperactivity disorder) can affect a student's ability to learn in the traditional way

Understanding the different dimensions of school failure and the factors that contribute to it is essential for developing personalized learning strategies. By targeting these elements, it becomes possible to develop effective interventions to support students in difficulty and help them overcome barriers to their academic success.

2. Learning Style Analysis

2.1 The different learning styles

Students learn in different ways, and understanding their learning styles can help personalize teaching strategies, our work focuses on the three styles (Visual, Auditory, and Kinesthetic):

- Visual Style: Visual learners prefer to see and use graphs, diagrams, and other visual representations to understand concepts. They retain information better when it is presented in the form of images or videos (Felder & Silverman, 1988).
- Auditory Style: These learners benefit from oral explanations and discussions. They retain what they hear better. Lectures, podcasts, and group discussions are effective methods for this type of learning (Gardner, 1993).
- Kinesthetic Style: Kinesthetic learners prefer to learn by doing. They engage best when they can manipulate objects or perform hands-on experiments. Hands-on activities, role-playing, and simulations are particularly beneficial for them (Dunn & Dunn, 1993).

2.2 How to Identify Learning Preferences

Personalizing learning strategies, it is essential to identify student preferences:

- Learning Quizzes: Use standardized quizzes (such as VARK) to assess learning styles. These questionnaires help to identify which style predominates in each student (Fleming & Mills, 1992).

- One-on-One Interviews: Conduct interviews with students to discuss their learning experiences. Ask questions about which methods they find most effective and which ones they like to use.

- Classroom Observations: Observe student behaviors during lessons. Note how they interact with the teaching materials and identify the activities that engage them the most.

- Feedback and Self-Assessment: Encourage students to reflect on their own learning methods and provide feedback on what works for them. Use reflective journals to help them become aware of their preferences.

3. Strategy Customization Template

Personalization of learning strategies is the process of adapting instructional methods to meet students' individual needs, preferences, and interests. This approach recognizes that every student has learning styles and that teaching methods must be flexible to maximize engagement and success. By incorporating elements such as learning pace, personal interests, and prerequisite skills, teachers can create a more inclusive and effective learning environment (Tomlinson, 2014).

- Flexibility implies the ability to adapt teaching methods according to the changing needs of students. This may include modifying learning objectives, activities, and resources used in the classroom, a teacher may choose to use interactive videos for a group of visual students, while also offering group discussions for those who learn best audibly (Felder & Silverman, 1988).

- Engagement is key to motivating students. Personalized strategies should be designed to capture students' interest and actively involve them in their learning. Projects based on personal choices or specific interests can increase this engagement, allowing students to choose their research topics can foster intrinsic motivation (El Messaoudi, 2024).

- Adaptability refers to the teacher's ability to adjust their methods in real time, based on student feedback and progress. This requires continuous evaluation and regular feedback, a teacher may observe that some students are struggling with a particular method and decide to change their approach to better meet their needs (Connac, 2022).

- Recent research explores the use of artificial intelligence (AI) to personalize learning. For example, adaptive learning systems can adjust the content and pace of learning based on student performance, providing a tailored learning experience (Messaoudi, 2024).

Personalizing learning strategies is essential to meet the diverse needs of students, especially those who are struggling. By incorporating principles of flexibility, engagement, and adaptability, educators can create more effective and inclusive learning environments. Examples of successful programs show that this approach can have a significant impact on students' academic success.

4. Personalization Strategies

- Tutoring

One-on-one tutoring is a fundamental approach in personalizing learning strategies. It consists of providing specific support to each student, based on their unique needs, with:

- Adapted Support: Tutoring allows the teaching to be adapted to the student's shortcomings and strengths. A tutor can quickly identify areas where the student needs reinforcement and adjust his teaching methods accordingly (Bloom, 1984).

- Building Confidence: Personalized coaching helps build students' confidence by providing them with a safe space to ask questions and express their struggles without judgment.

- Flexibility of Methods: Tutors may use a variety of pedagogical approaches depending on the student's learning style, whether through practical exercises, discussions, or visual resources (Felder & Silverman, 1988).

- Adapted learning groups:

Forming tailored learning groups is another effective strategy for personalizing the learning experience, which include:

- Homogeneous Groups: Creating groups based on learning styles allows students to collaborate with others who have similar preferences. For example, a group of visual learners might work together on projects that include graphic elements (Levine, 2011).

- Collaborative Learning: Students often learn best by interacting with their peers. Learning groups promote the exchange of ideas and mutual support, which can enhance understanding of concepts (Johnson & Johnson, 2009).

- Shared Resources: Adapted groups allow for the sharing of resources and strategies that work for everyone, increasing the effectiveness of collective learning.

- Use of Technology: Digital Tools for Adaptive Learning

The integration of technology into education offers unique opportunities to personalize learning. Here are some digital tools that can be used:

- Adaptive learning platforms: Apps like Khan Academy or IXL adapt to each student's skill level, offering exercises and lessons based on their previous performance (Khan Academy, 2022).

- Progress Monitoring Tools: Technology allows teachers to track student progress in real-time, identify difficulties, and adjust their teaching methods quickly. Tools like Google Classroom make it easy to manage assignments and provide personalized feedback.

- Multimedia Resources: The use of videos, simulations, and other multimedia resources can support diverse learning styles and make the content more engaging. This enriches the learning experience and allows students to choose the formats that work best for them (Mayer, 2001).

This section presents concrete strategies for personalizing learning, highlighting the importance of one-on-one tutoring, tailored learning groups, and the use of technology.

METHODOLOGY

For the personalisation of learning strategies, a systematic and thoughtful approach has been chosen in an educational context to ensure support tailored to the specific needs of each student. This allows for a deep understanding of preferences and past performance, facilitating structured planning of instructional interventions. By incorporating regular assessments and feedback, this approach promotes continuous improvement and responsiveness to changing student needs. In addition, it encourages collaboration between teachers, students and parents, creating a more engaging learning environment. Finally, a well-thought-out methodology optimizes the use of resources and makes it possible to demonstrate measurable results, justifying the efforts invested in personalization.

1. Data Collection

Our sample is 128 students in the first year of the Bachelor's degree in Education at the ENS of Tetouan

- Data collection through questionnaire, interviews, and observations to gather information about students' learning preferences. The VARK tool is used to identify learning styles.
- Past Performance Analysis: Review students' past academic performance to identify areas where they are struggling.

2. Custom Program Development

- Development of Individualized Learning Plans for each student, taking into account their learning styles, interests and academic goals.
- Resource selection: Choose a variety of educational resources (books, videos, apps) that are suitable for different learning styles.

3. Implementation of Strategies

- One-on-One Tutoring: Set up a tutoring system where each student can receive personalized support. Tutors must be trained to adapt their approach according to the needs of the student.
- Learning Group Formation: Organize group sessions based on similar learning styles to foster collaboration and mutual support.
- Technology integration: Use digital platforms to deliver adaptive learning. Tools like learning management systems (LMS) help track progress and adapt lessons.

4. Monitoring and Evaluation

- Formative assessments: Use regular assessments to measure student progress. This can include quizzes, projects, and class discussions.
- Continuous Feedback: Collect feedback from students and teachers to adjust learning strategies. Encourage a feedback culture where students feel comfortable sharing their opinions.

5. Adjustments and Improvements

- Data Analysis: After an implementation period, analyze performance and satisfaction data to evaluate the effectiveness of custom strategies.
- Learning Plan Revisions: Based on the results, adjust IAPs and teaching methods to better meet the needs of students.

6. Continuing Education of Educators

- Seminars and Workshops: Organize training sessions for teachers to familiarize them with best practices in personalizing learning.
- Community of Practice: Create discussion groups where teachers can share their experiences and tips on implementing personalized strategies.

This methodology provides a structured framework for personalizing learning strategies. By following these steps, educators can create an inclusive and effective learning environment that can meet the diverse needs of all students.

RESULTATS AND DISCUSSION

The application of the work methodology for the personalization of learning strategies can lead to several significant outcomes, both academically and socially and emotionally for students. with the expected results:

1. Improved Academic Performance

- Increased grades: Students who benefit from personalized learning strategies often show an improvement in their grades, with a 10-15% increase in results.
- Student success rates: The use of personalized approaches achieve graduation success rates of over 90%, compared to pre-intervention results of 65%.

The increase in grades and success rates observed in personalized approaches highlights their effectiveness in meeting individual student needs, thus highlighting that one size does not fit all. This personalization offers significant benefits, including opening up new opportunities, such as access to graduate programs and scholarships, while strengthening students' motivation to invest in their educational journey. However, these results also encourage challenges, including the need to ensure that assessment methods are accurate and truly reflect the skills acquired. Increased pressure to perform well can be detrimental to student well-being, creating an imbalance between academic performance and mental health. It is therefore crucial to find a balance between performance evaluation and support for personal development, in order to ensure an education that is both effective and caring. An ongoing

commitment to refining pedagogical approaches and supporting students on their journey is essential to fostering equitable and quality education.

2. Student Engagement
- Student satisfaction: Surveys show that up to 90% of students feel more engaged in their learning when personalized approaches are implemented.
- Active Participation: Students are more likely to actively participate in class discussions and group activities, which promotes a collaborative learning environment.
The high level of student engagement, observed through the personalization of learning strategies, indicates an increase in their interest in the educational process, which can transform the classroom dynamics into a more lively and interactive environment. This increased engagement promotes active learning, often more effective than traditional passive methods, allowing students to actively participate in discussions and collaborate with their peers, which strengthens their social skills. However, maintaining this commitment over the long term presents a considerable challenge for educators. It is essential that they continue to innovate and adapt their teaching strategies to prevent student disinterest. This need for adaptability underscores the importance of ongoing training and reflection on practices to ensure that student engagement remains sustained and dynamic throughout their educational journey.

3. Building Trust and Autonomy
- Self-confidence: Students who receive personalized support often develop greater confidence in their academic abilities. Reports indicate that 80% of students feel an increase in their self-confidence after receiving one-on-one tutoring.
- Autonomy in Learning: Students learn to become more autonomous in their approach to studying. They are able to set personal learning goals and work independently.
The development of self-confidence and autonomy in students is fundamental to their long-term success, especially in a world where continuous learning has become essential. These skills allow students to take initiative in their learning and explore new topics independently, enriching their overall educational experience. However, there are challenges related to the uneven reactions of students to autonomy. While some thrive in an environment that encourages them to work independently, others may feel lost without a clear structure, which can hinder their progress. This disparity underlines the importance of accompanying each student in an individualized way, providing tailored support for those who need more structured guidance, to ensure that all can enjoy the benefits of autonomy in their learning.

4. Adaptability and Social Skills
- Interpersonal skills: Adapted learning groups promote social skills such as collaboration, communication, and empathy. Students learn to work together and respect each other's differences.
- Adaptability to Change: Students develop an increased ability to adapt to new learning situations, which is essential in an ever-changing world.
The acquisition of interpersonal skills and adaptability is essential in today's professional world, where these skills are often considered just as important as academic skills. Group work, in particular, allows students to develop key skills such as communication, collaboration and conflict resolution, which are highly valued by employers. However, group dynamics can sometimes be problematic, with conflicts or disagreements that can arise between members. This highlights the need for teachers to be trained in dealing with these situations in order to create and maintain a positive learning environment. By providing the tools to navigate group interactions, educators can help students get the most out of these collaborative experiences while minimizing negative impacts on their learning.

5. Positive feedback from teachers
- Teacher Satisfaction: Teachers report greater job satisfaction when they see their students progress and engage. About 85% of teachers believe that personalizing learning improves their teaching experience.
- Teacher Collaboration: Implementing customized strategies promotes best practice sharing and a culture of collaboration among educators.
Teacher satisfaction is a key indicator of the success of an educational approach, as satisfied teachers are generally more motivated to implement innovative methods and engage in their professional development. This satisfaction can also stimulate a positive school climate, thus promoting student engagement. In addition, the personalization of learning strategies encourages collaboration between teachers, which helps to create a stronger and more dynamic educational community, conducive to the exchange of good practices and continuous improvement. However, it is crucial to provide adequate support and sufficient resources for teachers to apply these methods effectively. A lack of training or resources can hinder the implementation of customized strategies, leading to frustration for both teachers and students. Thus, investing in in-service training and pedagogical resources is essential to ensure the successful application of personalized approaches and to maintain teacher motivation and satisfaction.

The results of the methodology for personalizing learning strategies reveal concrete benefits for both students and teachers. By adopting the right strategies, educators can not only improve academic performance, but also strengthen student engagement, confidence, and social skills. These results highlight the importance of a personalized approach in contemporary education. However, it is crucial to recognize the challenges associated with this method. Thoughtful and ongoing implementation, accompanied by adequate support, is essential to maximize the benefits of customization while mitigating potential drawbacks. Personalization has the potential to transform education, but it requires a long-term commitment from all actors involved in the educational process.

CONCLUSION

The personalization of learning strategies represents a major turning point in the contemporary educational landscape, offering significant benefits for both students and teachers. By tailoring teaching methods to the individual needs of learners, this approach promotes not only improved academic performance, but also enhanced student engagement and well-being. The results show that students who benefit from personalized strategies develop greater self-confidence, autonomy in their learning, and essential interpersonal skills, setting the stage for future success in an ever-changing world. However, it's crucial to recognize that implementing these personalized strategies isn't without its challenges. Teachers face barriers such as lack of resources, the need for in-service training, and managing group dynamics. Thus, it is imperative to provide adequate support, both material and human, to ensure that educators can apply these methods successfully. This involves developing professional training programmes that enable teachers to master the tools and techniques needed to personalise learning.

In addition, the involvement of parents and the community is essential to strengthen this approach. By working closely with families, schools can create a cohesive and supportive learning environment that values students' efforts. Personalized education must also be accompanied by a fair and thoughtful evaluation, which takes into account not only academic results, but also the personal and social development of students.

In conclusion, the personalization of learning strategies has the potential to transform education by making the learning experience more enriching, inclusive, and responsive to the diverse needs of twenty-first century learners. To achieve this transformation, a long-term commitment from all actors involved in the educational process is needed. By cultivating a culture of innovation, collaboration, and support, we can overcome the challenges and maximize the benefits of this approach, paving the way for an educational future that truly meets the aspirations and needs of every student.

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