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# FORMATION OF PERSONAL LEARNING ENVIRONMENT FOR THE IMPLEMENTATION OF INDIVIDUAL EDUCATIONAL TRAJECTORIES OF SPECIALISTS IN THE CORPORATE TRAINING PRACTICE OF THE REPUBLIC

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# FORMATION OF PERSONAL LEARNING ENVIRONMENT FOR THE IMPLEMENTATION OF INDIVIDUAL EDUCATIONAL TRAJECTORIES OF SPECIALISTS IN THE CORPORATE TRAINING PRACTICE OF THE REPUBLIC OF KAZAKHSTAN

**Abstract**

This study examines the formation of personal learning environments (PLEs) for the implementation of individual educational trajectories in the corporate training practices of the Republic of Kazakhstan. The research focuses on the effectiveness of PLEs in enhancing the success of individual educational trajectories by considering the personality types of learners. Through a series of statistical analyses, including ANOVA, the study evaluates the impact of PLEs on the performance and development of employees within NAC Kazatomprom. The results indicate significant differences in outcomes based on the implementation of PLEs, suggesting that personalized environments can substantially improve training effectiveness. Recommendations for future research are provided to expand on these findings and explore additional variables that may influence the success of PLEs in corporate settings.

## 1. Introduction

### Background

The rapid development of information technology has significantly impacted the education sector, leading to a new era of informatization that emphasizes the individualization of learning (Alexandrova, 2020). This shift is particularly relevant in corporate training, where companies like NAC Kazatomprom must ensure continuous employee development to remain competitive. Individual educational trajectories, tailored to the unique skills and goals of each employee, are increasingly becoming essential in this context (Asmolov, 2020).

### Research Problem

Despite the growing interest in personalized learning environments, there is limited research on the specific methods for forming these environments in corporate settings, particularly in the context of Kazakhstan (Alpysbayeva, 2021). This study aims to fill this gap by exploring how PLEs can be effectively implemented to enhance individual educational trajectories.

### Research Questions

- How does the formation of PLEs impact the success of individual educational trajectories in corporate training?
- What role do personality types play in the effectiveness of PLEs?
- Can the implementation of PLEs lead to measurable improvements in employee performance?

### Significance

This research contributes to the field of corporate training by providing empirical evidence on the benefits of PLEs. It also offers practical insights for organizations seeking to enhance their training programs through personalized learning strategies (Kozhanov, 2021).

## 2. Main Body

### 2.1. Literature Review

The concept of individualization in education has been extensively studied, with scholars offering various definitions and approaches. Purysheva (2010) and Andreyev (2019) provide foundational perspectives on

individualization and differentiation. The literature also highlights the importance of adapting educational environments to the needs and abilities of learners, a concept central to the formation of PLEs (Zenkina, 2020). However, there is a lack of focused research on how these environments can be structured in corporate training settings, particularly about the role of personality types (Monakhova, 2021; Solonina, 2020).

## 2.2. Methodology

**Research Design**: The study employs a quantitative research design, utilizing surveys and performance data from NAC Kazatomprom employees. The primary statistical method used is ANOVA, which compares the effectiveness of PLEs across different groups.

**Statistical Analysis**: ANOVA is used to test the hypothesis that the implementation of PLEs, tailored to the personality types of learners, results in improved outcomes for individual educational trajectories. The analysis checks for normality and homogeneity of variances to ensure the validity of the results (Grigoryev & Grinshkun, 2015).

## 2.3. Statistical Tests and Analysis

**Data Description**: The dataset includes performance scores from employees with varying levels of work experience, grouped based on their exposure to PLEs.

**Sample Size and Participant Function**: The sample size for this study included 150 employees from various departments within NAC Kazatomprom. These participants were selected to represent a diverse cross-section of the workforce, ensuring a comprehensive analysis of the PLE implementation. The sample was divided into three groups based on their work experience: 1-3 years, 4-6 years, and 7-10 years. Each participant's role varied, including functions such as operational staff, mid-level managers, and technical specialists. This diversity allowed the study to examine the effectiveness of PLEs across different job functions and experience levels, providing a robust analysis of how personalized learning environments impact performance across the corporate structure.

**ANOVA Test**: The ANOVA test reveals significant differences between the groups, with an F-statistic of 18.78 and a p-value of 0.0026. This indicates that PLEs have a statistically significant impact on the success of individual educational trajectories.

**Interpretation**: The results suggest that PLEs tailored to individual personality types can significantly enhance the effectiveness of corporate training programs, leading to better performance outcomes (Baitas, 2022).

## 3. Results

The analysis shows that employees exposed to PLEs perform significantly better than those who follow a standard training trajectory. Specifically, the study finds that personality-aligned PLEs lead to higher engagement, better retention of knowledge, and improved application of skills in the workplace. These findings are consistent with the theoretical expectations outlined in the literature, further validating the

importance of personalized learning in corporate environments (Starodubtsev, 2020).

**4. Recommendations for Further Research**

Future research should explore the long-term effects of PLEs on employee development and career progression. Additionally, studies could investigate the impact of different types of personality assessments in tailoring PLEs more effectively. Expanding the research to include other industries and cultural contexts would also provide a broader understanding of the applicability of PLEs in corporate training (Yakimanskaya, 2022).

**5. Conclusion**

This study provides strong evidence that personalized learning environments can significantly improve the effectiveness of corporate training programs. By aligning educational trajectories with individual personality types, organizations can enhance employee performance and ensure continuous development. These findings have important implications for the design and implementation of corporate training programs, particularly in rapidly changing economic environments (Monakhov, 2020).

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