

	<p>Science, Education and Innovations in the Context of Modern Problems Issue 12, Vol. 8, 2025</p> <p>Title of research article </p> <p>Understanding the Interrelation between Teacher Motivation and the Choice of Teaching Methods: An Empirical and andragagogical analysis of Reproductive and Productive Pedagogical Strategies in the Context of Educational Modernization in Russia</p>
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Keywords	Andragogy; Reproductive and productive teaching methods; Motivation; Innovative educational activity; Educational standards; Teacher professional development.
<p>Abstract Background and Relevance: In the context of continuous reforms in Russian education, one of the critical challenges for educational policy is enhancing the motivation of teachers to engage in innovative pedagogical activities. The demand of modern society for individuals who are creative, flexible, and capable of independent decision-making implies that teachers must employ productive teaching methods that stimulate cognitive activity, reflection, and self-development among learners. However, in practice, many educators still rely primarily on reproductive methods of instruction, which reproduce knowledge rather than create it. This inconsistency raises the question of whether teachers' motivational orientations influence their pedagogical choices.</p> <p>Objective: This study aims to examine the relationship between teachers' professional motivation and their selection of reproductive versus productive (research-oriented) teaching methods.</p> <p>Methodology: The methodological foundation of the research draws on theories of andragogy, systemic analysis, and motivational psychology. The study employs a mixed-methods approach, including theoretical analysis of scholarly literature, surveys, and diagnostic testing based on T. Ehlers' methodology to assess motivational orientation. The empirical stage involved teachers from general and supplementary education institutions.</p> <p>Results: The findings reveal a significant correlation between teachers' dominant motivation types and their preferred teaching methods. Teachers with a motivation to avoid failure tend to rely on reproductive, knowledge-transmission methods, whereas teachers motivated by achievement and self-development are more likely to adopt productive, research-oriented approaches. The results confirm the author's hypothesis that a predominance of avoidance motivation among teachers reduces their readiness for innovation and experimentation in the classroom.</p> <p>Scientific Novelty: The study provides new insights into the motivational underpinnings of pedagogical behavior. It establishes a conceptual framework linking professional motivation with methodological choices and defines the psychological and organizational preconditions necessary for transitioning from reproductive to productive methods in andragogical practice.</p> <p>Practical Significance: The results can be applied by school administrators, teacher training institutes, and policymakers to design motivational strategies that encourage innovation among teachers. It is recommended that institutions of</p>	

continuing professional education strengthen adherence to andragogical principles, organize methodological support and consulting, and develop programs aimed at fostering achievement motivation. Enhancing teachers' internal motivation for professional growth will contribute to the effective implementation of educational innovations and the fulfillment of state educational objectives.

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1. Introduction

The rapid socio-cultural and economic transformations of contemporary Russian society have profoundly affected all spheres of educational practice. One of the strategic priorities of state policy in the field of education is the comprehensive modernization of teaching at all levels. This modernization necessitates a shift toward creative, productive approaches in pedagogy that encourage learners' independence, adaptability, and problem-solving capabilities.

To meet this social demand, pedagogical activity must be grounded in productive methods—those that form a creative personality with a stable need for continuous self-improvement and learning. Such methods equip individuals to operate effectively in a dynamic and uncertain world. Nevertheless, there remains a discrepancy between the declared objectives of innovation in education and the insufficient motivation and readiness of teachers to implement productive methods in practice.

2. Theoretical Foundations

This study builds on the theories of adult learning (Knowles, 1984; Jarvis, 2004), professional motivation (Maslow, 1954; Herzberg, 1966; Deci & Ryan, 1985), and systemic approaches in pedagogy. The concept of andragogy—education focused on adult learners—plays a central role, emphasizing self-directed learning, professional reflection, and intrinsic motivation as key factors of effective teaching.

3. Methodology

The research utilized both qualitative and quantitative methods. The diagnostic phase involved administering T. Ehlers' motivational orientation test to assess the prevalence of achievement versus avoidance motivation among teachers. The sample included teachers from schools and professional retraining institutions. Additional data were gathered through structured interviews and content analysis of teaching materials to identify the dominant instructional methods employed.

4. Results and Discussion

The analysis demonstrated that teachers characterized by an avoidance-oriented motivation primarily prefer reproductive methods—lectures, repetition, and memorization—because these minimize the risk of failure. Conversely, teachers driven by achievement motivation are more likely to experiment with innovative and research-based methods such as problem-based learning, project-based instruction, and collaborative inquiry. These findings underscore the necessity of integrating motivational development into teacher training programs.

3. Materials and Methods

At the diagnostic (ascertaining) stage of the study, a survey was conducted among school teachers working at the experimental sites of the Department and among participants in professional development courses. The purpose

of this survey was to identify the relationship between teachers' motivation types and their preferred teaching methods.

In psychological research, motivation is generally categorized into two dominant types: the **motivation to achieve success** and the **motivation to avoid failure**. To assess these types, we employed **T. Ehlers' diagnostic questionnaires**, which are designed to determine the level of development of each motivational orientation. Measurements and data interpretation were carried out according to Ehlers' scales, where scores were distributed as follows:

- **1-10 points** – low level of motivation;
- **11-16 points** – moderate level;
- **17-20 points** – moderately high level;
- **Above 20 points** – high level of motivation.

Following the principles of **andragogy**, the teachers participating in the study—especially those from institutions of continuing professional education—were regarded as individuals progressing through stages of professional development. This trajectory extends from **reproductive pedagogical activity** (repetition and transmission of ready-made knowledge) to **productive pedagogical practice**, characterized by conscious reflection, creativity, and methodological innovation.

To complement the teacher survey, a parallel questionnaire was administered to **learners enrolled in professional retraining and qualification improvement programs**, with the objective of determining which teaching methods—**productive or reproductive**—were most commonly used by their instructors and how satisfied the learners were with those methods.

4. Results

The results of the survey demonstrated a pronounced predominance of **reproductive teaching methods** in the practice of educators at both school and postgraduate levels. Among instructors of additional professional education, **96%** reported using reproductive methods—such as lectures, dictation, or structured exercises—during their sessions. Interestingly, a **high degree of learner satisfaction** was observed, as course participants indicated comfort and confidence with this traditional form of instruction.

A similar pattern emerged among school teachers at the initial stage of the experiment. When asked, “*Which teaching methods do you prefer in your classroom practice?*”, **88% of teachers in the control group** and **85% of teachers in the experimental group** (selected based on matching characteristics such as number, qualification level, and gender composition) reported relying mainly on **reproductive instructional strategies**.

These findings reveal a **stable preference for low-risk, directive teaching styles**, closely associated with the **motivation to avoid failure**. Teachers exhibiting this type of motivation tend to minimize uncertainty by adhering to well-known didactic routines. Such methods, while efficient for knowledge transmission, limit learners' autonomy, creativity, and critical thinking.

5. Discussion

The predominance of reproductive teaching practices among the surveyed educators underscores a critical contradiction in the contemporary educational landscape: while the state and society demand innovative, research-oriented teaching aligned with **Federal State Educational Standards (FSES)**, the psychological and motivational readiness of teachers for innovation remains low.

According to the **Ehlers diagnostic results**, the majority of teachers demonstrated moderate or low levels of achievement motivation and relatively high indicators of avoidance motivation. This pattern explains their inclination toward conservative pedagogical methods that ensure stability and predictability. Teachers motivated by

fear of failure often perceive innovation as a threat to their professional reputation or competence, thus avoiding new, untested teaching strategies.

Conversely, teachers exhibiting **achievement-oriented motivation** tend to view challenges as opportunities for growth. They are more likely to experiment with **research-based, problem-oriented, and project-based learning techniques**, which correspond to **productive teaching methods** in the classification of **Lerner (1970)** and **Skatkin (1982)**. These teachers also demonstrate greater empathy toward learners, aligning with **C. Rogers' person-centered approach**, where the teacher acts as a **facilitator**, creating a supportive environment that encourages self-expression and reflective learning.

In line with **Knowles' (1970) andragagogical principles**, adult education should emphasize self-directed learning, professional relevance, and immediate applicability of acquired knowledge. The data obtained confirm that where the teacher assumes a facilitative, collaborative role rather than a directive one, the level of learner engagement and satisfaction increases, and motivation shifts toward achievement and intrinsic interest.

8. Hypothesis and Experimental Design

Based on the theoretical analysis and previous observations, we hypothesized that in the **motivational structure** of teachers—both in general education and in the system of continuing professional pedagogical education—the **predominant tendency is the motivation to avoid failure**. This motivational orientation often results in reluctance to master new types of professional activity, resistance to change, and a preference for stability and predictability. Over time, such attitudes may lead to professional stagnation and even withdrawal from teaching due to **a loss of competitiveness within the professional community**.

To test this hypothesis, an experimental study was conducted across **six experimental sites (ES)** located in different Russian cities. A total of **300 teachers** participated in the experiment, with **50 participants** selected from each site. The sample was balanced by key parameters such as **qualification level, teaching experience, age, and gender**.

All participants were assessed using **T. Ehlers' diagnostic methods**:

1. *Methodology for Diagnosing Personality Motivation for Success, and*
2. *Methodology for Diagnosing Personality Motivation for Avoiding Failure.*

Both instruments measure the strength and direction of motivational tendencies on a point scale, allowing comparison of individual and group profiles.

9. Results

9.1 Motivation to Achieve Success

The distribution of scores for motivation to achieve success among teachers is presented in **Table 2**.

Table 2
Levels of Motivation to Achieve Success among Teachers (points)

City	Low	Moderate	Average Score Across All Sites
Krasnoyarsk	6	-	8.8
Ekaterinburg	7	11	
Smolensk	-	12	
Domodedovo	-	13	
Nizhny Tagil	4	-	
Moscow	-	-	

As shown in Table 2, approximately **50% of respondents** demonstrated a **low level of motivation to achieve success** (scores ranging from 4 to 7), while the remaining half showed a **moderate level** (11-13 points). The **average score** across all experimental sites was **8.8**, which is relatively low. Importantly, **no respondents** displayed moderately high or high levels of achievement motivation, confirming the preliminary assumption that teachers' professional motivation tends to be moderate or weakly developed in the success-oriented domain.

9.2 Motivation to Avoid Failure

The results of the second diagnostic test—*motivation to avoid failure*—are presented in **Table 3**.

Table
Levels of Motivation to Avoid Failure among Teachers (points)

3

City	Moderately High	High	Average Score Across All Sites
Krasnoyarsk	-	27	23.2
Ekaterinburg	19	-	
Smolensk	-	28	
Domodedovo	18	-	
Nizhny Tagil	17	-	
Moscow	-	30	

The data in Table 3 indicate that **50% of the 300 teachers** exhibited a **moderately high level** of motivation to avoid failure (17-19 points), while the remaining **50%** demonstrated a **high level** (27-30 points). The **average score** across all experimental sites was **23.2 points**, confirming a **pronounced dominance** of failure-avoidance tendencies among participants. Notably, no respondents showed low or moderate levels of this type of motivation.

10. Discussion

Psychological research on motivation has long established that a clear dominance of one of the two main motivational orientations—achievement or avoidance—manifests itself in distinct behavioral patterns across professional contexts. Individuals motivated primarily by **achievement** typically demonstrate initiative, perseverance, risk tolerance, and openness to feedback, while those dominated by **avoidance motivation** often exhibit conservatism, fear of failure, and avoidance of innovation.

In professional settings, especially in education, these differences become particularly visible. The **avoidance-oriented teacher** tends to display the following behavioral and professional characteristics:

- **Lack of initiative** in performing productive and socially significant tasks within the teaching community.
- **Avoidance of new or creative activities** involving students, preferring well-known and safe methods.
- **Fear of competition** and reluctance to engage in collaborative or comparative professional practices.
- **Preference for very easy or excessively difficult tasks**, where success or failure can be rationalized.
- **Strict adherence to regulated working hours**, without investment of personal time in professional tasks.
- **Avoidance of socializing and sharing results** of pedagogical work with peers and administrators.
- **Low inclination toward learning new methods** or professional self-development.
- **Fear of risk** and indecision in ambiguous professional situations.
- **Avoidance of responsibility** in professionally significant contexts.
- **Insufficient persistence** in pursuing pedagogical objectives.
- **Distorted self-assessment** of professional competence—either overestimation or underestimation.
- **Resistance to feedback** from colleagues, parents, or supervisors.
- **Preference for conservative, reproductive methods** in teaching.
- **Fear of failure and reputational loss**, leading to self-protective behaviors and limited innovation.

In contrast, teachers characterized by a **motivation to achieve success** demonstrate an entirely different professional profile:

- **Initiative and productivity**, actively seeking challenging and meaningful pedagogical tasks.
- **Confidence and competitiveness**, perceiving professional rivalry as a constructive force.
- **Engagement in collaboration** and peer exchange.
- **Willingness to devote personal time** to professional projects, viewing work as a form of personal fulfillment.
- **Active dissemination of personal teaching experience**, through seminars, conferences, and publications.
- **Openness to innovation** and continuous skill enhancement.
- **Willingness to take calculated risks** and make independent decisions in uncertain situations.
- **Assumption of responsibility** for pedagogical outcomes and team performance.
- **Persistence and resilience** in achieving professional objectives.
- **Realistic self-assessment** based on reflection and evidence.
- **Preference for feedback** as a tool for self-improvement.
- **Orientation toward innovation**, seeking new and effective methods to solve pedagogical problems.
- **Expectation of success**, affirming positive self-perception within the professional community.

These findings are consistent with the theoretical positions of **Rogers (1994)**, **Knowles (1970)**, and **Gordeeva et al. (2014)**, who emphasize that effective professional behavior in educators depends not only on cognitive and methodological competence but also on motivational and emotional maturity. Teachers with a strong **achievement orientation** are more likely to act as **facilitators** of learning, enabling student-centered and innovation-driven educational environments.

11. Conclusion of the Experimental Stage

The empirical data obtained confirm the initial hypothesis: **the majority of teachers demonstrate a predominance of avoidance motivation**, accompanied by a **low level of achievement orientation**. This motivational imbalance contributes to the persistence of **reproductive teaching practices**, resistance to educational innovation, and limited engagement in professional self-improvement.

To overcome these challenges, it is essential to integrate **motivational diagnostics and training** into the professional development of educators, emphasizing achievement motivation, reflective thinking, and creative risk-taking. Strengthening intrinsic motivation is the key to fostering innovation, professional sustainability, and competitiveness in the modern educational landscape.

Motivational orientation plays a determining role in teachers' methodological decisions. Without addressing the psychological barriers rooted in avoidance motivation, attempts to modernize education through innovative methodologies may remain superficial. The transition toward productive teaching practices requires targeted efforts to cultivate achievement motivation and pedagogical creativity among educators.

Conclusion

At the diagnostic (ascertaining) stage of our study—focused on teachers' motivation and its relationship to the choice of teaching methods—we established a clear balance in the actual practice of schoolteachers and instructors in continuing professional teacher education between reproductive and productive (research-oriented) methods. The data show that preference for reproductive methods positively correlates with a heightened motivation to avoid failure, which in turn constrains teachers' innovative activity and, ultimately, complicates the modernization and development of the education system.

Practical implications. The findings are actionable for school leadership and institutes of continuing teacher education. To move beyond formal implementation of state educational requirements, school administrators

should monitor and guide teachers' method selection and intentionally stimulate a shift in motivational orientation—from avoidance of failure toward achievement.

Directions for further research. Our subsequent work will focus on (i) identifying conditions and mechanisms that transform avoidance motivation into achievement motivation, and (ii) designing interventions that re-balance pedagogical practice from predominantly reproductive instruction toward productive technologies, tools, and methods aligned with innovation-driven learning.

Ethical Considerations

This study was conducted in accordance with the ethical standards of educational research and the principles of the Declaration of Helsinki. Participation in the survey and testing procedures was voluntary, and all respondents provided informed consent. The anonymity and confidentiality of all participants were strictly maintained throughout data collection and analysis. No personal identifiers were recorded, and the data were used solely for academic and scientific purposes. Approval for conducting the study was granted by the internal ethics committee of the Academy for Advanced Training and Professional Retraining of Education Workers (APKIPRO), Moscow, Russia.

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Conflict of Interest

The author declares **no conflict of interest**. The author is solely responsible for the content, interpretation, and conclusions presented in this article, and there are no financial or personal relationships that could have influenced the results of the research.

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