






## A model of self-initiated professional development for teachers: Strategies, implementation, and implications for educational practice

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### ABSTRACT

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This study aims to refine a model of self-initiated professional development (SIPD) tailored to the specific features of Kazakhstan's educational system. It focuses on teachers' developmental trajectories, the frequency of professional initiative across SIPD subprocesses, and the constraints that hinder its expression. The study employed surveys, document analysis, and content analysis to explore existing SIPD practices among pedagogical college teachers in the Almaty region. It also examined the barriers limiting teachers' professional initiative within SIPD. The research identified a wide variety of professional growth pathways, largely aligned with a cyclical 6S model: self-awareness, self-determination, self-manifestation, self-organization, self-actualization, and self-realization. These subprocesses are supported by reflective practices, self-assessment, and feedback mechanisms. However, external constraints such as regulatory pressure and insufficient resources limit the frequency and diversity of teachers' initiatives. Adapting SIPD to the individual needs of teachers and reducing institutional constraints are essential for fostering their autonomy and sustained professional engagement. The findings highlight the need for a more flexible SIPD support system that actively encourages teacher initiative, minimizes systemic barriers, and enhances reflective and self-directed growth.

**Contribution/Originality:** This study offers an original contribution by contextualizing the self-initiated professional development (SIPD) model within Kazakhstan's educational system and integrating a cyclical 6S framework. It uniquely combines analysis of initiative frequency with systemic barriers, highlighting a localized, reflective model that is rarely explored in post-Soviet teacher development research.

### 1. INTRODUCTION

The contemporary educational landscape imposes high demands on teachers' professional competencies, necessitating continuous self-renewal and adaptability to change. Within this context, self-initiated professional development (SIPD) emerges as an integral component of effective teaching practice, with teacher initiative serving as a critical factor in the success of this process. As highlighted in various studies, an educator's proactive stance the ability to independently chart developmental trajectories and seek out learning resources facilitates sustainable and meaningful transformations in professional activity (Gore et al., 2017; Hennessy et al., 2022).

Despite widespread acknowledgment of the importance of professional development, teachers in many countries, including Kazakhstan (Mercader, 2020; Okoye et al., 2023) encounter several constraints: limited resources, restricted access to high-quality professional development programs, and challenges in integrating digital technologies into the educational process (Popova, Evans, Breeding, & Arancibia, 2022). Traditional centralized forms of professional development often prove ineffective, as they fail to account for individual teachers' needs, the specific context of their professional environment, and their levels of motivation (Karakose et al., 2023).

The evolving challenges in education necessitate a shift towards new models of SIPD, wherein teachers assume an active role in defining their learning objectives, content, and methods. This initiative-based approach to SIPD emphasizes pedagogical autonomy, reflective practice, and self-organization (Diamond & Bulfin, 2025; Golightly, 2022). While external support remains valuable, the core impetus for professional growth originates from the educators themselves, who consciously navigate their developmental trajectories.

In Kazakhstan, there is a concerted effort to identify effective solutions for continuous professional development. Governmental programs and regulatory documents, such as the "Rules for Organizing and Conducting Professional Development Courses," provide an institutional framework for teacher qualification enhancement (Ministry of Education and Science of the Republic of Kazakhstan, 2016). However, the prevailing system is predominantly centralized (Abdigapbarova, Arzymbetova, Imankulova, Zhiyenbayeva, & Tapalova, 2024; Zhumash et al., 2021), limiting its flexibility and adaptability particularly in rural schools and underscoring the need for models that prioritize teacher initiative and autonomy.

Research Aim: To refine a model of the initiative-based approach to self-initiated professional development that integrates diverse growth trajectories and is adapted to the specific conditions of Kazakhstan's educational system.

### 1.1. Research Questions

- Q1: What individual professional development trajectories can be identified among teachers, and how do they align with the principles of the initiative-based approach?
- Q2: How frequently do teachers exhibit professional initiative across various subprocesses of the SIPD model?
- Q3: To what extent do barriers realistically constrain the expression of teachers' professional initiatives?

## 2. LITERATURE REVIEW

The ideas of the SIPD, which became the basis of the model under consideration, have become widespread in the pedagogical literature of recent years (Sagimbayeva, Issabayeva, & Shekerbekova, 2024; Skrbinjek, Vičič Krabonja, Aberšek, & Flogie, 2024). They are considered a sustainable and personalized process based on reflective practice, cooperation, and digital transformation of the educational environment (Keay & Lloyd, 2015; Manea, 2023). Researchers emphasize that it is the internal motivation and initiative of the teacher that act as the driving forces of such processes, ensuring not only the growth of professional competencies but also an increase in satisfaction with their own activities. Reflective practice occupies a central place in the SIPD. According to D. Schön, reflection allows the teacher to critically comprehend their own activities and form the basis for professional self-development (Schon, 1995). Later works Fendler (2003); Loughran (2002) and Zakaria (2020) confirm that reflection contributes not only to the development of pedagogical competence, but also to improving the quality of the educational process. Teachers involved in proactive development models use a variety of tools: keeping professional journals, analyzing video recordings of lessons, self-assessment and external feedback, as well as digital platforms and applications for self-analysis (Effendi & Triastuti, 2022; Kaya & Adiguzel, 2021).

In addition to cognitive aspects, the proactive approach enhances the motivational component of professional development. Teachers who independently choose areas of study demonstrate higher self-efficacy, confidence, and a desire to experiment with new methods (Ingvarson, Meiers, & Beavis, 2005; Morris, 2019). Self-assessment and

self-reflection become integral tools for managing one's own growth, which is especially important in the context of a lack of external support. The digital environment plays a significant role in implementing a proactive approach, providing access to various forms of training and professional communities. Research shows that inclusion in online networks, platforms, and virtual communities increases teachers' engagement and stimulates their initiative (Antunes, Barbosa, & Moreira, 2013; Baporikar, 2016). Digital literacy is becoming a prerequisite not only for successful teaching but also for independently designing a professional career. Finally, an important element of the proactive approach is professional cooperation. Peer learning, participation in supervision and mentoring groups, and collective reflection contribute to the formation of sustainable growth models and the development of a culture of continuous professional development (Bannister & Wilder, 2020; Liu & Liao, 2019; Smith, 2014). Such forms of interaction strengthen the sense of belonging to a professional community, stimulate the exchange of experience, and create conditions for maintaining initiative at a high level. Thus, modern scientific literature confirms the effectiveness of a proactive approach to independent professional development. It is based on a combination of individualization, reflexivity, digital flexibility, and professional interaction, allowing teachers to consciously manage their growth, adapt to the challenges of the time, and contribute to the development of the educational environment.

### *2.1. International Studies of Models of Proactive Professional Development of Teachers*

Modern international studies in the field of teacher education increasingly focus on proactive and self-managed forms of professional development (Effendi & Triastuti, 2022; Kaya & Adiguzel, 2021). Such models involve the active participation of the teacher in planning, implementing, and evaluating their own growth trajectory, which aligns with the logic of the proactive approach.

One of the common models is Individual Professional Development (IPD), which includes a step-by-step process: analysis of professional needs, joint development of an individual plan with a mentor, implementation of planned actions, monitoring and formative assessment, as well as collecting evidence of professional growth in the form of a portfolio (Duran, Can, & Özer, 2020). A key role in this model is given to self-assessment and strategic planning, which contribute to the development of autonomy and responsibility for one's own learning.

Another example is the practice of Teacher Activity Groups (TAGs) — structured communities of practice in which proactive teachers regularly meet for facilitated discussions of current pedagogical issues, analysis of practical cases, and implementation of new teaching methods. The widespread use of digital platforms such as WhatsApp and Facebook allows for interaction between participants, expanding the space for sharing experiences and reflection (Borg, Lightfoot, & Gholkar, 2020). The TAGs model promotes professional confidence and supports the development of innovative and proactive teaching. In the model developed by Sims and Fletcher-Wood (2021) a proactive approach to professional growth is implemented through four key components: insight, motivation, technique development, and practice. This structure not only ensures sustainable development but also enhances the teacher's internal motivation for self-development, which is critical for implementing a proactive model.

An interesting example is the gamified professional development model proposed by de la Serna, Raposo-Rivas, Robles, and Sarmiento-Campos (2025). It uses a system of digital rubrics, badges, formative feedback, and collective learning. Gamification activates the involvement and initiative of teachers, promotes the development of digital competencies, and stimulates the implementation of innovative teaching methods. Other models that contain elements of a proactive approach are also widely used in global practice: coaching and mentoring (Ali, Wahi, & Yamat, 2018), Lesson Study (Huong, Thi Thuy Quynh, Thi Ngoc, & Mau Duc, 2021), transformational models (Freeman, Blackstone, & Burchard, 2020), continuous development models (Suryawati et al., 2024), open educational models (Salmi, Kaasinen, & Suomela, 2016) and action and research models (Al-Ghadouni, 2023). In these approaches, the teacher acts as a subject capable of reflection, selection of appropriate tools and independent decision-making. A special place in European practice is occupied by the DigCompEdu digital competence

framework (Begimbetova, Abdigapbarova, Abdulkarimova, & Kurmangaliyeva, 2022; García-Vandewalle García, García-Carmona, Trujillo Torres, & Moya Fernández, 2023; Issabayeva, Abdigapbarova, Abdulkarimova, & Seitova, 2023; Seitova, Issabayeva, Rakhimzhanova, & Issabayeva, 2022), which allows teachers to independently assess and develop their digital skills in key areas such as teaching, resources, assessment and interaction with students. The framework enhances teachers' initiative in managing their own digital development and supports a personalized approach. Thus, despite the diversity of SDS models, the key trends are independence, initiative (Tyagi & Misra, 2021), and flexibility. However, questions remain open about how individual trajectories based on self-managed learning affect pedagogical effectiveness, sustainability of development, and professional motivation.

## 2.2. Cultural Conditions Influencing the Implementation of the Proactive Model of SIPD

The effectiveness of the proactive approach to the teacher's SIPD is largely determined by the cultural context in which the education system operates. The key factor here is the perception of professional autonomy the central element of the proactive model of Individual Professional Development (IPD) (Duran et al., 2020), which assumes an active subjective position of the teacher in determining his or her own growth trajectory.

In individualistic cultures (USA, UK, Germany), autonomy is interpreted as personal responsibility for professional development, which makes the Self-Directed Learning (SDL) (Aulakh, Wahab, Richards, Bidaisee, & Ramdass, 2025; Wang, Xiong, & Liu, 2021) and DigCompEdu (Vuorikari, Kluzer, & Punie, 2022) models particularly effective. These models promote the development of initiative, reflexivity and the ability to self-organize, which is fully consistent with the logic of the proactive IPD approach.

In collectivist cultures (Japan, China, South Korea), on the contrary, professional development is perceived as part of the joint responsibility of the team, where the key mechanisms are mutual support, joint learning, and team reflection. Here, the Lesson Study (Huong et al. (2021) and Bufasi, Čakāne, Greitans, Dudareva, and Namsone (2024) Professional Learning Communities (PLC) (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006; Voelkel Jr & Chrispeels, 2017) models demonstrate high efficiency; despite their group focus, they can also support the teacher's initiative through participation in joint projects and practice analysis. In the context of strictly regulated education systems (France, China, Turkey), the implementation of individualized development models is limited by the regulatory framework and cultural expectations of the hierarchy (Vangrieken, Grosemans, Dochy, & Kyndt, 2017). This requires the institutionalization of a proactive approach, the integration of IPD models into official certification mechanisms, career growth, and mentoring. Conversely, in countries with flexible education systems such as Finland, Canada, and the Netherlands, a high degree of pedagogical self-determination allows for the widespread implementation of self-directed development strategies, supporting initiative and sustainable professional motivation (Dreer, 2024). Professional identity and motivational attitudes also directly depend on cultural characteristics. In countries where the teaching profession has high social value (Finland, Japan), there is a dominance of internal motivation for development, which enhances the effect of reflective and proactive professional development models. In systems where the status of teachers is perceived as less prestigious, participation in professional development is often formal or mandatory, requiring a balance between external incentives and the development of internal motivation (Kim, Owusu, & Asbury, 2024; Pantić & Florian, 2022).

The cultural flexibility of PD models is also reflected in their priorities: the Anglo-Saxon tradition focuses on individual achievements and certification, the Scandinavian tradition on social support and the development of professional communities, and the Asian tradition on collective responsibility and mentoring. Each of these systems offers unique mechanisms to support proactive professional growth in accordance with the values and educational traditions of a particular culture. In the context of Kazakhstan, where the educational system is in the process of modernization, an interweaving of individualistic and collectivistic features is observed (Balykbayev, Issabayeva, Rakhimzhanova, & Zhanysbekova, 2021; Karabassova & San Isidro, 2023). On the one hand, attention to individual achievements and digital competencies is increasing; on the other hand, the cultural attitude towards modesty,

respect for authority, and orientation towards vertical relationships remains. This can limit the manifestation of initiative and reduce teachers' self-esteem, especially in conditions of weak institutional support. In such a situation, it is advisable to adapt the proactive approach by integrating it into the institutional framework: developing mentoring programs, using digital tools for analytics and self-diagnosis of professional development, and creating flexible professional communities that support a culture of self-development and reflection. Only by considering cultural factors is it possible to establish a sustainable and effective model of proactive professional development in the context of a modern Kazakhstani school.

### 3. MATERIALS AND METHODS

#### 3.1. Research Design

This study aims to examine individual trajectories of teachers' professional development that influence the implementation of SIPD models among teachers at pedagogical colleges located in the Almaty region. The study involved 115 teachers from four colleges: ALT Pedagogical College and the Humanitarian College "KazNur".

The experiment was conducted in three waves:

1. 115 teachers participated in the brainstorming session "Individual Trajectories of Professional Development of Teachers".
2. Questionnaire on the manifestation of professional initiatives of teachers at different stages of the cyclic SIPD model - 115 respondents.

### 4. SURVEY TO IDENTIFY BARRIERS THAT ACTUALLY LIMIT THE MANIFESTATION OF PROFESSIONAL INITIATIVES OF TEACHERS

#### 4.1. Theoretical Basis for Conducting a Brainstorming Session

Modern studies of the professional development of teachers identify a sequence of six interrelated stages that form a holistic growth trajectory (Maslow, 1943; Nurbekova, Aimicheva, Baigusheva, Sembayev, & Mukametkali, 2023). This process is cumulative in nature, assuming a sequential passage from the initial to the final stages of professional development. The cyclic 6S model of the SPR is presented in Figure 1.

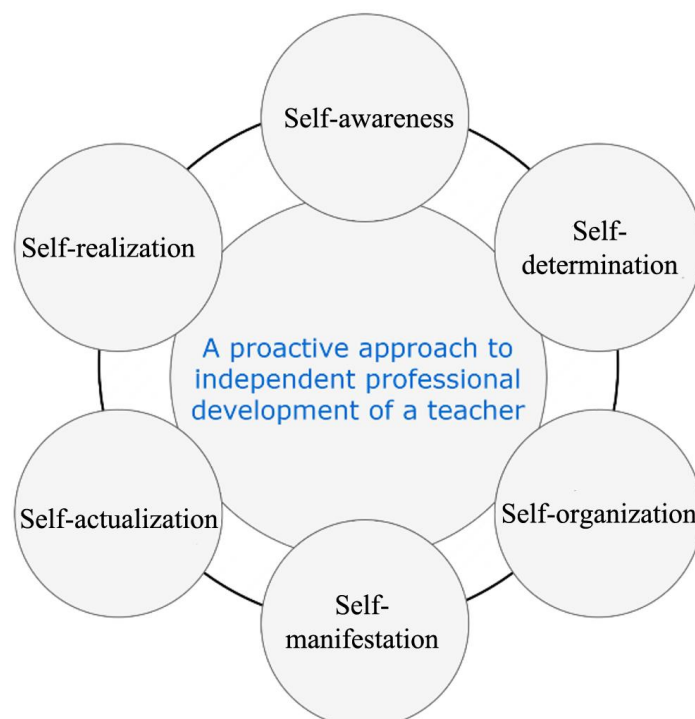


Figure 1. Cyclic 6S model of the teacher's SIPD.



The self-awareness stage is considered a fundamental basis for professional development (Eurich, 2018) and forms the motivational base for subsequent development (Schon, 1995). In the pedagogical context, this stage involves a reflexive analysis of one's own competencies, identification of growth areas, and awareness of professional values. Professional self-determination is a key transitional stage during which the teacher formulates individual development goals (Howard, Bureau, Guay, Chong, & Ryan, 2021; Nurbekova et al., 2023). The organizational stage (self-organization) involves practical planning of professional growth (Howard et al., 2021) the effectiveness is determined by the teacher's ability to build individual educational trajectories and rationally use available resources (Zimmerman, 2000). The self-manifestation stage is an active phase in which the teacher begins to apply developed strategies in practice. An important characteristic of this stage is the implementation of one's own ideas, testing new teaching methods, and participating in initiatives and projects aimed at developing the educational environment (Diamond & Bulfin, 2025; Golightly, 2022). Successful self-expression requires not only self-confidence but also a willingness to accept professional risks and openness to feedback. The stage of self-actualization is associated with achieving a state in which a teacher realizes his or her potential to the fullest in professional activity. Self-actualization is accompanied by high involvement, initiative, and a desire to constantly update knowledge and skills (Schoofs, Hornung, & Glaser, 2022). The stage of professional self-realization is considered the final stage of professional development (Schoofs et al., 2022) associated with high professional satisfaction and meaningfulness of pedagogical activity (Bailey, Madden, & Lips-Wiersma, 2025). It should be noted that the proposed stages are not linear. As longitudinal studies show (Popovych et al., 2024; Ryan & Deci, 2017) variations in the speed and depth of passing through individual stages are possible, which is due to both the individual characteristics of teachers and the conditions of their professional environment.

#### 4.2. Research Tools

The theoretical analysis of professional development models and the identified factors influencing teachers' motivation and initiative create a solid foundation for determining key areas of empirical research into the model of the teacher's initiative approach to SIPD. The patterns identified during the literature review allowed us to focus further work on a systematic study of real SIPD practices, their motivational mechanisms, and organizational conditions, which provided a substantive basis for developing diagnostic tools and data collection methods.

The empirical basis of the study was formed using two authors' questionnaires. The survey questions were grouped according to six key subprocesses of the model of the proactive approach of the teacher's SIPD: self-awareness, self-determination, self-manifestation, self-organization, self-actualization, and self-realization. Self-awareness involves reflection techniques, maintaining a professional diary, regular self-assessments, and feedback from colleagues (Eurich, 2018). Self-determination includes setting career goals, developing an individual educational trajectory, and choosing projects that align with personal interests and beliefs (Deci & Ryan, 2000). Self-manifestation is realized through public speaking, publications, participation in competitions, and initiatives, where a professional demonstrates their competencies and values. Self-organization includes time planning, task prioritization, and time management (Diamond & Bulfin, 2025; Golightly, 2022). GTD (Getting Things Done) techniques, SMART goals, and the use of digital trackers are effective. Self-actualization methods include participation in projects that meet internal needs and interests, as well as the fulfillment of "higher" needs creativity, significance, and social benefit (Schoofs et al., 2022). Self-realization is ensured through the achievement of career and life goals, a combination of professional growth with personal meanings and values of the individual (Morris, 2019; Zimmerman, 2000). To analyze the manifestation of initiatives in various subprocesses of self-development, a diagnostic matrix was developed, including six thematic blocks (corresponding to the number of subprocesses of professional growth); thirty specific indicators of initiative (five points for each subprocess). Responses were assessed on a three-point scale: "Often," "Sometimes," "Never." To assess barriers to professional

development, a three-point scale was used: "Completely agree," "Agree," "Neutral," analyzing four key areas of problems: infrastructural, psychological, time management, and financial.

#### 4.3. Data Analysis

To analyze the brainstorming session, percentage analysis and interpretation by response categories were used. To analyze the quantitative data, the following methods were employed.

Percentage analysis by response categories (Initiatives).

Grouping of positive responses ("Agree" and "Strongly agree") when analyzing barriers to professional development.

Correlation analysis using Pearson's coefficient to identify relationships between initiative indicators and perceived barriers.

Testing the statistical significance of differences at a significance level of  $p < 0.05$ ; - data visualization in tabular form.

All results were systematized in 13 thematic tables:

**Tables 1-2** - Indicators of 6S Model Variants and Interpretation of Discrepancies in Models.

**Tables 3-8** - Indicators of the frequency of manifestation of SIPD initiatives.

**Tables 9-12** - Prevalence of various types of challenges.

**Table 13** - Correlation links between initiatives and challenges.

This methodological solution made it possible to obtain a comprehensive understanding of the improvement of the proactive approach model of the teacher's SIPD, integrating various growth trajectories and adapting to the conditions of the Kazakhstani education system.

## 5. RESULTS

During the brainstorming session, teachers were asked to develop their individual models of the SIPD based on the proposed subprocesses of the 6S Model (self-awareness, self-determination, self-manifestation, self-organization, self-actualization, self-realization). As a result, a cyclical model of the 6S SIPD for teachers was created. An analysis of the versions of the 6S Model presented by teachers showed that each participant emphasized different aspects of the professional development process, adapting the model to their own needs and working conditions.

**Table 1.** Versions of the 6S model SIPD.

Model type	Sequence of stages	Characteristic	Percentage distribution
Reflexive-analytical	Self-awareness → Self-determination → Self-organization → Self-manifestation → Self-actualization → Self-realization	Clear understanding of needs, setting goals, planning, then implementation	50%
Practical-oriented	Self-awareness → Self-manifestation → Self-determination → Self-organization → Self-actualization → Self-realization	Experience and experimentation precede clear goal setting	15%
Motivational-impulse	Self-actualization → Self-awareness → Self-determination → Self-manifestation → Self-realization → Self-organization	Development begins with inspiration, then reflection and action.	11.50%
Purposeful	Self-determination → Self-organization → Self-awareness → Self-manifestation → Self-actualization → Self-realization	First, setting a goal, then finding resources, and realizing your capabilities.	7.50%
Flexible and adaptive	Non-linear alternation of stages depending on the context.	The stages are repeated cyclically; the order depends on the current tasks and results.	16%

The difference in the starting points of professional development (self-actualization vs. self-awareness) reflects fundamentally different cognitive-motivational profiles of teachers: the first demonstrates an approach based on internal motivation, the second a reflexive-analytical style, emphasizing awareness of professional deficiencies, which confirms the non-linearity of the process of professional development and the need for differentiated methodological support, etc. (Table 2).

**Table 2.** Interpretation of discrepancies in models.

Reason for the discrepancy	What is he talking about?	Example
Various professional experiences	Beginning teachers often start with self-awareness, while experienced teachers begin with self-realization or self-actualization.	A young teacher analyzes his weaknesses, while an expert looks for new challenges.
Individual characteristics	Some people are inclined to planning (self-organization), others to spontaneous search (self-manifestation).	One teacher creates a clear plan, while another immediately tries new methods.
External working conditions	In strict systems, self-organization prevails, while in innovative systems, self-manifestation prevails.	A teacher in a traditional school follows a plan, whereas in a progressive school, they experiment.
Motivation level	High internal motivation shifts the emphasis to self-actualization; external motivation shifts the emphasis to self-realization.	For one, the feeling of growth is important; for another, the recognition of colleagues is important.

The distribution of the 6S SIPD model types shows the dominance of the reflexive-analytical approach (50%), reflecting teachers' high orientation toward planning and systemic organization of professional growth under the influence of institutional requirements and the culture of reflection. The practice-oriented model (15%) demonstrates some teachers' desire to learn through practice. The low share of the motivational-impulse (11.5%) and goal-oriented (7.5%) models indicates a lack of conditions for creativity and manifestations of internal motivation. The flexible-adaptive model (16%) indicates the presence of teachers capable of managing variable development and adapting to changes. Overall, the data emphasize the predominance of the systemic approach while maintaining diversity in individual trajectories. An analysis of the frequency of professional initiatives at different stages of the SIPD identified characteristic patterns of teacher activity. As shown by the data from the second wave of the study, the dynamics of initiatives vary significantly depending on the SIPD subprocesses. Table 3 presents a detailed distribution of indicators reflecting the differentiation.

**Table 3.** Self-awareness-based initiative.

Initiative	Always	Sometimes	Never
Keeping a personal diary recording successes and difficulties	39	54	7
Regular self-assessment of competencies using checklists	27	63	10
Requesting feedback from colleagues and students	50	45	5
Analyzing video recordings of your classes to identify blind spots	38	51	11
Participation in supervision or interdisciplinary discussions	35	38	27

The results of Table 3 show that the most regularly used practice is requesting feedback from colleagues and students (always – 50%, sometimes – 45%). Keeping a personal diary is always practiced by 39% of respondents, sometimes – 54%. Regular self-assessment using checklists is always carried out by 27%, and analysis of video recordings of their own classes by 38% of teachers. The least common practice is participation in supervisions: 35% always use it, and 27% do not use it at all. In general, teachers demonstrate an orientation towards reflexive and individual forms of development, while collective practices are less in demand.



**Table 4.** Manifestation of initiative based on self-determination.

Initiative	Always	Sometimes	Never
Development of a personal development plan (PDP) for 1–3 years	38	46	16
Selecting courses/Trainings that match personal values	32	54	14
Participation in projects that combine professional and personal interests	35	53	12
Adjusting career goals based on reflection	56	39	5
Matching your beliefs with your teaching practice	54	38	8

Table 4 shows that 56% of teachers regularly adjust their career goals based on reflection, and 54% compare their beliefs with their teaching practices, indicating a high level of personal awareness. At the same time, only 38% regularly develop an individual development plan (IDP), and 35% of teachers consistently participate in projects that combine professional and personal interests. The least involved practices remain strategic planning, SIPD and participation in integration projects, which reflect the need for additional support in these areas.

**Table 5.** Manifestation of initiative based on Self-manifestation.

Initiative	Always	Sometimes	Never
Publication of articles, methodological developments	37	46	17
Speaking at conferences, webinars, and pedagogical councils.	26	50	24
Participation in competitions of pedagogical excellence	42	53	5
Creating a professional blog/Portfolio	25	59	16
Open lessons for colleagues with subsequent discussion	42	54	4

According to the data in Table 5, the highest involvement of teachers is observed in participation in competitions (42%) and conducting open lessons (42%), which indicates the high value placed on professional recognition and open exchange of experience. The least regular activity is the creation of blogs and digital portfolios—this practice is used by only 25% of teachers, which may reflect a lack of digital competencies or motivation for self-presentation. Additionally, 17% of teachers do not publish articles and methodological developments, 24% do not participate in conferences and webinars, and 16% do not create digital portfolios, indicating existing barriers to more active participation in the scientific and methodological space.

**Table 6.** Manifestation of initiative based on self-organization.

Initiative	Always	Sometimes	Never
Using GTD (Getting things done) methods	29	53	18
Setting SMART goals for the academic year/Semester	20	35	45
Using digital trackers (Trello, Notion, Google Calendar)	29	31	30
Prioritizing tasks using the Eisenhower matrix	42	49	9
Regular audit of time costs	20	35	45

The data in Table 6 show that among the self-organization strategies, the most widespread is the simple and intuitive Eisenhower matrix, while digital and methodologically complex approaches have been partially implemented and require further development.

**Table 7.** Manifestation of initiative based on self-actualization.

Initiative	Always	Sometimes	Never
Participation in innovative educational projects	20	29	51
Development of original courses and methods	40	39	21
Volunteering in pedagogical communities	40	35	25
Research paper on topics of personal significance	15	35	50
Combining teaching with creative activities such as writing books, podcasts, and other media.	17	32	51

The data in Table 7 show that, with high activity in traditional forms, there is a deficit in scientific, innovative, and creative implementation, which indicates structural limitations in the support system.

**Table 8.** Manifestation of initiative based on Self-realization.

Initiative	Always	Sometimes	Never
Achieving key career milestones (Teacher level)	45	35	20
Participation in mentoring programs for young teachers	35	38	27
Creating conditions for working “according to one’s calling” (For example, specialized classes)	30	21	49
Reflecting on life purpose through coaching or mentoring	35	35	30
Integration of hobby and profession (e.g., using art in teaching).	20	32	48

The data in Table 8 show that teachers demonstrate diversity in their professional activities and involvement. Strengths include achieving professional goals and active participation in mentoring programs. However, there are several issues, such as a lack of involvement in mentoring and a low level of work according to calling, which indicates the need to improve organizational support and create conditions for wider involvement of teachers in these practices.

The least developed aspect was the integration of personal interests into the profession—only 20% of teachers actively use their hobbies in their work, while 48% do not resort to this at all, which may be due to limitations in the curricula. It is necessary to develop initiatives that promote the holistic self-realization of teachers, taking into account both professional and personal aspects.

The initiatives of teachers identified during the study, despite their diversity and potential, face persistent barriers such as infrastructural issues, time constraints, psychological obstacles, and financial difficulties. This emphasizes the systemic nature of competence development within the framework of the proactive professional growth model. Analyzing how these personal factors ranging from lack of time to lack of self-confidence influence the implementation of professional initiatives allows us to move from merely stating external manifestations of activity to understanding the underlying mechanisms that inhibit or promote teachers’ self-development.

Table 9 uses the following measures: SA (Strongly Agree), i.e., the percentage (%) of respondents who fully agree with the statement. A (Agree), i.e., the percentage (%) of respondents who agree with the statement, but not completely. N is neutral. Composite (SA+A) – “Total Percentage of Agreement”, i.e., the sum of the percentages of those who fully agree (SA) and agree (A).

**Table 9.** Infrastructure problem.

Barriers/Limitations/Difficulties	SA	A	Composite (SA+A)	%	N	%
Lack of access to current information resources (Library, electronic/printed):	14	14	28	24	27	23
Lack of internet access for teachers	18	18	36	31	27	23
Lack of personal workspace	15	15	30	26	27	23
Poor computer equipment	13	13	26	23	20	17

Analyzing the data in Table 7, the greatest concern among respondents is the lack of internet access (31%), followed by lack of workspace (26%) and lack of access to information resources (24%). A less pronounced but significant problem is poor computer equipment (23%). The data obtained highlight the need to improve infrastructure and technical support to increase the efficiency of the prosecutor's office.

**Table 10.** Problems with time management.

Barriers/Limitations/Difficulties	SA	A	Composite (SA+A)	%	N	%
High academic and workload	10	36	46	40	15	11
Schedule conflict	10	44	54	46	25	22
Family obligations	9	39	48	42	24	21
Additional burden from the institution	9	40	49	43	17	15

In Table 10, the greatest challenges in maintaining time management are related to scheduling conflicts (46%) and additional workload from the institution (43%). Family obligations (42%) and high academic/workload (40%) also play a significant role. The data obtained indicate the need to optimize work and educational processes, as well as to maintain a balance between professional and personal responsibilities.

**Table 11.** Problems of a psychological nature.

Barriers/Limitations/Difficulties	SA	A	Composite (SA+A)	%	N	%
Lack of professional motivation	11	30	40	35	18	16
Lack of confidence in the effectiveness of CPD	31	11	42	36	20	17
Unwillingness to waste personal time	12	22	34	30	19	16,5
Self-confidence in professional skills	8	30	38	33	28	24

In Table 11, the most significant psychological barriers are related to a lack of confidence in the effectiveness of SIPD (36%) and a lack of professional motivation (35%). A considerable proportion of respondents demonstrate overconfidence in their skills (33%) and an unwillingness to invest personal time (30%) in development. These data indicate the need to: raise awareness of the benefits of SIPD, develop motivational programs, create flexible training formats that minimize the personal time cost, and conduct training to correct inflated self-assessment of skills. The results highlight the importance of addressing not only technical but also psychological aspects of professional growth.

**Table 12.** Financing issues.

Barriers/Limitations/Difficulties	SA	A	Composite (SA+A)	%	N	%
Lack of travel funds	14	35	49	43	22	19
High cost of participation	9	33	42	36	19	16
Refusal to compensate registration fees	15	34	49	43	28	24
General financial difficulties	10	37	47	41	18	15

Table 12, the most significant difficulties are related to the lack of travel funds (43%) and refusal to reimburse registration fees (43%). General financial difficulties (41%) and the high cost of participation (36%) also substantially impact professional activities. Recommendations include developing financial support programs (e.g., grants, subsidies), reviewing the employee compensation policy, and finding alternative, less expensive formats for professional development (webinars, online courses). These measures will help reduce financial barriers and increase access to professional development opportunities.

To assess the real impact of barriers on professional initiatives, a correlation analysis was conducted, establishing links between perceived restrictions and the actual activity of teachers at different stages of the SIPD (Table 13).

Table 13. Correlation matrix.

Subprocesses of the model	Infrastructure problems	Time management issues	Psychological problems	Financial problems
Self-awareness	-0.12	-0.25	-0.45	-0.18
Self-determination	-0.08	-0.30	-0.5	-0.22
Self-manifestation	-0.15	-0.35	-0.38	-0.10
Self-organization	-0.20	-0.40	-0.42	-0.25
Self-actualization	-0.05	-0.18	-0.30	-0.12
Self-realization	-0.10	-0.28	-0.33	-0.15

The data from the correlation analysis presented in Table 11 enable us to identify several significant relationships between external and internal factors influencing the process of independent professional development. The most notable inverse correlations were observed between psychological problems and self-determination initiatives ( $r = -0.50$ ), as well as between psychological difficulties and self-awareness practices ( $r = -0.45$ ). These results suggest that high levels of psychological distress can substantially diminish activity in self-determination and awareness, corroborating previous findings in studies related to professional self-reflection. A moderate negative correlation was identified between time management issues and self-organization levels ( $r = -0.40$ ), as well as between psychological barriers and the ability to self-manifest ( $r = -0.38$ ). The data imply that difficulties in managing time effectively and overcoming internal barriers may impede the development of sustainable strategies for personal and professional growth. Lastly, a weak correlation was found between environmental factors, such as infrastructural limitations and financial difficulties, and indicators of independent development activity. These findings indicate that although such external factors pose obstacles, they are less influential compared to internal psychological determinants.

## 6. DISCUSSION

The results of the study confirm the relevance and viability of the proposed model of a proactive approach to SIPD, based on six interrelated subprocesses: self-awareness, self-determination, self-manifestation, self-organization, self-actualization, and self-realization. These components were not only observed in the actions of teachers but were also recognized by them as significant stages of professional growth.

Participants noted that each stage contributed to the development of their personal effectiveness, increased confidence, increased professional motivation, and renewal of their methodological arsenal. This resonates with the concepts of a person-centered approach (Maslow, 1943) as well as theories of self-directed learning (Dreer, 2024) in which personal development is viewed as a step-by-step and conscious process.

The results obtained correlate with the key characteristics of effective professional development described in the works (Covey, 1989): focus on content, active participation, cooperation, feedback, support and sustainability of changes (Howard et al., 2021). Coaching and support proved to be particularly significant components; participants who received methodological support demonstrated more stable and pronounced progress.

A substantive similarity to the model of cyclical teacher activity proposed by Herzberg (1966) was also found, where the teacher acts as a researcher of his practice, going through the stages of comprehension, planning, implementation and evaluation. This reflects the logical structure of the subprocesses embedded in our model. The results of the study expand existing ideas about the cultural determinacy of the initiative approach to SIPD, demonstrating that the identified patterns do not contradict, but rather complement, classical theories of self-determination (Ryan & Deci, 2017) and professional identity (Borg et al., 2020; Duran et al., 2020). The data confirm the key hypothesis of the study: the effectiveness of the SIPD model does vary depending on the cultural context, while in collectivist systems, a harmonious combination of group practices with an individual development trajectory is possible, which is especially relevant for educational systems in transition, such as Kazakhstan.

## 7. CONCLUSIONS

This study aimed to identify individual trajectories of teachers' SIPD within a proactive approach, as well as to analyze the frequency of professional initiatives and barriers that limit this process. Throughout the work, various aspects of SPD were considered, and the impact of barriers on teachers' activities was assessed. The answers to the research questions enabled the identification of several key aspects.

The first aspect was associated with individual trajectories of professional development. Teachers demonstrated a variety of development trajectories, from a reflective-analytical approach to flexible-adaptive models. These trajectories largely correspond to the principles of a proactive approach, which focuses on the active role of the teacher in determining the goals, content, and forms of SIPD. The results of the study show that teachers using reflective and analytical approaches demonstrate a high degree of professional initiative, while the limitation of initiative is associated with external barriers.

The second aspect aims to study the manifestations of professional initiatives. It was found that teachers most often actively demonstrate initiative in reflexive forms of development, such as self-assessment of competencies and analysis of their own activities. However, they less frequently engage in collective and strategic forms, such as participation in supervision and the development of long-term plans. This confirms the assumption that individual approaches to development predominate and that external forms of support are underutilized.

The third aspect relates to barrier factors. Both internal and external barriers limiting the manifestation of professional initiatives were identified. Internal barriers include a lack of confidence, motivation, and awareness of the importance of a proactive approach, as well as overload and burnout. External barriers include a rigid regulatory environment, lack of flexibility in institutional support, and limited resources. These barriers significantly restrict teachers' opportunities to implement their initiatives and necessitate the creation of conditions to overcome them. Therefore, the study confirms that transitioning to a proactive approach in teachers' professional development is not only relevant but also essential in the context of modern education. To enhance the effectiveness of the proactive approach, it is necessary to create a more flexible and supportive educational environment that considers teachers' individual needs and motives and minimizes barriers to development.

## 8. RECOMMENDATIONS

The proactive approach to the SPR demonstrates its effectiveness due to the ability to harmoniously combine the individual needs of teachers with the tasks of the modern educational system. Its fundamental difference lies in creating conditions for conscious self-development, where the teacher becomes an active subject of their own professional growth. This format not only increases teachers' motivation and responsibility but also helps develop key 21st-century competencies such as the ability to reflect, adapt to changing conditions, and readiness for continuous learning.

Of particular value is the organic connection between personal and professional development, which is the basis of a proactive approach. Moving away from the traditional passive stance, teachers have the opportunity to build individual development trajectories, ultimately leading to qualitative changes both in their professional activities and in students' educational outcomes. At the same time, the most important condition for success is the creation of a supportive environment that can stimulate teachers' internal resources.

The results of the study enable us to identify several key areas for improving the SPR system. Based on the identified patterns, it is possible to formulate specific recommendations aimed at maximizing the potential of a proactive approach in modern educational settings.

The recommendations are grouped into three main areas: development of initiatives, optimization of processes, and solving systemic problems. To increase the level of professional activity and conscious self-development, it is recommended to implement programs that promote reflection and the exchange of experience. In particular:



The implementation of reflective practice programs will enable teachers to understand their professional development, develop sustainable self-improvement strategies, and enhance their self-awareness.

The creation of a mentoring system will provide support to novice specialists from more experienced colleagues, contributing to the development of a culture of professional interaction and continuity.

The organization of supervision groups will provide an opportunity for regular discussions of professional difficulties in a safe environment, increasing the level of psychological stability and professional confidence.

The following measures are proposed to reduce the impact of factors associated with overload and ineffective distribution of resources:

- Conducting time management training will help teachers develop planning and task prioritization skills, reducing stress and increasing the effectiveness of professional activities.
- The introduction of digital planning tools (such as calendars, task trackers, and collaboration apps) helps automate routine processes and increases the transparency of time management.
- The development of individual development trajectories, taking into account personal goals, levels of training, and professional interests of teachers, allows for a more motivating and personalized development model.

Removing external barriers requires a comprehensive approach at the level of educational organizations and specialized departments. Important steps are:

Modernization of the material and technical base, including updating equipment, providing access to digital resources, and creating a comfortable educational environment.

Development of a grant support system that enables teachers to implement original projects, participate in conferences, and undergo advanced training without additional financial costs.

Optimization of administrative processes aims to reduce bureaucratic burdens and increase teachers' autonomy in decision-making, thereby creating favorable conditions for initiative and innovation in professional activities.

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