Submission date: 1 of August 2025 **Acceptance date:** 2 of October 2026 **Publication date:** 5 of November 2026

THEORETICAL FOUNDATIONS OF CONSTRUCTIVE AND DESIGN ACTIVITIES IN THE VOCATIONAL EDUCATION OF FUTURE TEACHERS

FUNDAMENTOS TEÓRICOS DE LAS ACTIVIDADES CONSTRUCTIVAS Y DE DISEÑO EN LA FORMACIÓN PROFESIONAL DE FUTUROS DOCENTES

Juliya Mavrodina[1*]
E-mail: julia.mavrodina@yandex.ru
ORCID: https://orcid.org/0000-0003-4816-1252
Olga Kurganskaya[1]
E-mail: romak55@mail.ru
ORCID: https://orcid.org/0000-0002-8978-9671
Sergey Kurgansky[1]
E-mail: rektor@bgiik.ru
ORCID: https://orcid.org/0000-0001-8766-2661
[1] Belgorod State University of Arts and Culture. Belgorod. Russia
*Corresponding author

Suggested citation (APA, seventh ed.)

Mavrodina, J., Kurganskaya, & Kurgansky, S. (2026). Theoretical foundations of constructive and design activities in the vocational education of future teachers. ***Revista Conrado, 22***(113), e5764.

ABSTRACT

The article aimed to clarify the theoretical foundations of constructive and design activities and substantiate their significance for the vocational education of future teachers. The relevance of the study stems from the need for future teachers to develop the ability to design the content, methods, forms, and conditions of the educational process while taking into account students' age-related characteristics, individual differences, and special educational needs. The research took the form of a theoretical literature review. The review drew on publications retrieved from the Scopus and Web of Science databases. The research methods included analysis, comparison, generalization, and systematization. As a result, the study clarified the content of constructive and design activities to be mastered by future teachers and systematized their main directions. Four stages of implementation were identified: preparation, implementation, reflection, and correction. It was also concluded that these activities combine didactic planning, creative modeling, the organization of learning environments, and the evaluation of educational outcomes. The theoretical findings can inform the development of educational programs, academic courses, and methodological materials for the vocational education of future teachers. The conclusions highlight the role of constructive and design activities in preparing future teachers to plan, organize, implement, evaluate, and improve the educational process.

Keywords:

Future Teachers, Vocational Education, Constructive And Design Activities, Pedagogical Design, Teacher Education

RESUMEN

El artículo tuvo como objetivo clarificar los fundamentos teóricos de las actividades constructivas y de diseño, y fundamentar su importancia para la formación profesional de futuros docentes. La relevancia del estudio radica en la necesidad de que los futuros docentes desarrollen la capacidad de diseñar el contenido, los métodos, las formas y las condiciones del proceso educativo, teniendo en cuenta las características de los estudiantes relacionados con la edad, las diferencias individuales y las necesidades educativas especiales. La investigación se realizó mediante una revisión de la literatura teórica, basada en publicaciones de las bases de datos Scopus y Web of Science. Los métodos de investigación incluyeron análisis, comparación, generalización y sistematización. Como resultado, el estudio clarificó el contenido de las actividades constructivas y de diseño que deben dominar los futuros docentes y sistematizó sus principales líneas de actuación. Se identificaron cuatro etapas de implementación: preparación, implementación, reflexión y corrección. Asimismo, se concluyó que estas actividades combinan la planificación didáctica, el modelado creativo, la organización de entornos de aprendizaje y la evaluación de los resultados educativos. Los hallazgos teóricos pueden servir de base para el desarrollo de programas educativos, cursos académicos y materiales metodológicos para la formación profesional de futuros docentes. Las conclusiones resaltan el papel de las actividades constructivas y de diseño en la preparación de futuros docentes para planificar, organizar, implementar, evaluar y mejorar el proceso educativo.

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License

Palabras clave:

Futuros Docentes, Formación Profesional, Actividades Constructivas y de diseño, Diseño Pedagógico, Formación del Profesorado.

INTRODUCTION

One of the fundamental tasks of the modern education system is to prepare future teachers for professional practice. This preparation should enable them to facilitate learning in specific subject areas, contribute to students' personal development, and support the acquisition of knowledge, skills, and abilities. In this article, the vocational education of future teachers is understood as their professional preparation for these interrelated pedagogical responsibilities. Research on teacher professional identity highlights the importance of considering how future educators develop their understanding of professional roles, responsibilities, and pedagogical practices throughout their preparation. In music teacher education, professional identity has been examined as a multidimensional process shaped by educational experiences, institutional contexts, and the relationship between musicianship and teaching (Ballantyne et al., 2012; Hargreaves et al., 2007; Isbell, 2008).

Similarly, Triantafyllaki (2010) examined the relationship between professional identity and professional knowledge in advanced music teaching, providing a perspective on how disciplinary expertise and pedagogical responsibilities intersect in teachers' professional practice. Although these studies focus specifically on music education, their contributions offer relevant conceptual perspectives for understanding the integration of disciplinary knowledge, pedagogical preparation, and professional identity in the vocational education of future teachers. Furthermore, the relationship between teachers and students constitutes an important dimension of professional preparation. Monroy-Peñafiel et al. (2026) examined teacher–student relationships in university education through experiences, meanings, and accompaniment practices, highlighting a relational dimension that is relevant to understanding teaching beyond the transmission of disciplinary knowledge.

Modern requirements for the vocational education of future teachers imply not only mastery of subject-specific knowledge and teaching methods but also the ability to systematically design the educational process. To prepare for professional practice, future teachers need to develop creative thinking, adaptability, and stress resistance. They also need to learn to respond to non-standard situations and address pedagogical problems. These requirements acquire particular significance in educational environments characterized by technological transformation, increasing learner diversity, and the need to integrate pedagogical innovation into teaching practices. Wise et al. (2011) examined teachers' use of digital technology in secondary music education, illustrating how technological resources can be incorporated into changing classroom practices and providing insights into the relationship between technological integration and pedagogical organization.

From the perspective of students' comprehensive development, Hallam (2010) reviewed evidence concerning the intellectual, social, and personal effects of musical engagement, emphasizing the educational relevance of experiences that extend beyond the acquisition of subject-specific knowledge. In addition, the systematic review conducted by Mommo et al. (2025) addressed inclusion and pedagogical support for students with special educational needs in music lessons, reinforcing the importance of considering learner diversity when planning educational activities and selecting teaching strategies. Taken together, these contributions support a broader conceptual understanding of teacher preparation in which disciplinary competence, professional identity, technological integration, inclusive pedagogical planning, and attention to students' personal development are interconnected dimensions of educational practice.

Therefore, particular attention should be given to teachers' ability to independently analyze pedagogical situations and to design and organize the educational process as a whole (Boschman et al., 2014; Gure, 2004; Huizinga et al., 2014). This focus is relevant to educational contexts characterized by changes in standards, the development of new curricula and innovative pedagogical technologies, and the expansion of opportunities for teachers' professional inquiry and creativity (Kali et al., 2015; McKenney et al., 2015).

For these reasons, constructive and design activities can be considered an important component of the vocational education of future teachers. Research on teachers' design practices provides a conceptual basis for examining these activities in relation to professional competence, initiative, and continuing professional learning (Boschman et al., 2014; Huizinga et al., 2014; Kali et al., 2015). Furthermore, collaborative design processes have been identified as opportunities for teachers' professional development and the improvement of educational practices (Voogt et al., 2015).

The professional activity of a modern teacher involves design through the development of a preliminary model of the future educational process, the identification of conditions for its implementation, the anticipation of possible outcomes, and the subsequent adjustment of pedagogical

actions. Constructive and design skills enable teachers to translate a general pedagogical idea into specific educational content, a sequence of actions, teaching methods, organizational forms, and learning tools.

Within the vocational education of future teachers, constructive and design activities concern the preparation of lessons, extracurricular activities, learning tasks, teaching materials, and assessment procedures. They connect educational goals with the selection and organization of content, individual and group work, and opportunities for students' active participation. These activities should be considered in relation to both subject-specific learning and students' broader personal and creative development.

When designing the educational process, future teachers need to learn to take into account students' age-related, individual, and psychophysiological characteristics, prior knowledge, existing skills, educational interests, and special educational needs. These characteristics should inform the selection of content, methods, learning tasks, and opportunities for independent and collaborative activity.

Therefore, constructive and design activities cannot be reduced to drawing up a lesson plan. They constitute a holistic process encompassing the analysis of the pedagogical situation, goal setting, modeling, planning, organization, implementation, assessment, and subsequent correction of pedagogical actions. In the vocational education of future teachers, the theoretical clarification of these activities provides a basis for identifying what prospective teachers need to understand and learn to perform in professional practice.

The issues of pedagogical construction and design have been examined within educational research concerned with the purposeful organization of pedagogical practice. From this perspective, pedagogical design involves the systematic planning of educational processes, the analysis of teaching and learning situations, and the coordination of their essential components to achieve intended educational objectives. Particular attention is given to the ability to anticipate pedagogical challenges, establish coherent relationships between educational goals and instructional strategies, and adapt teaching practices to the characteristics of learners and the conditions of the educational environment (Boschman et al., 2014; Gure, 2004; Huizinga et al., 2014).

Thus, pedagogical design can be understood as a prerequisite for the purposeful and theoretically grounded organization of the educational process. The preliminary determination of educational goals, content, methods, and the sequence of pedagogical actions provides a structured basis for instructional decision making, reduces reliance on spontaneous or insufficiently justified interventions, and facilitates the systematic evaluation of educational outcomes. Furthermore, the integration of planning, implementation, and reflection contributes to the development of teachers' professional competencies and their capacity to respond to changing educational requirements (Kali et al., 2015; McKenney et al., 2015; Voogt et al., 2015).

The theoretical foundations of pedagogical construction and design emphasize their role as interconnected components of teachers' professional activity. Pedagogical design involves developing a preliminary model of the educational process by defining its objectives, content, organizational structure, instructional methods, learning resources, and expected outcomes. Constructive activities, in turn, focus on translating this model into specific teaching arrangements, educational materials, learning tasks, and sequences of interaction between teachers and students. Together, these processes facilitate the transition from an initial pedagogical intention to a coherent and operational program of educational actions, thereby strengthening the relationship between theoretical knowledge and its practical application in teaching (Boschman et al., 2014; Gure, 2004; Huizinga et al., 2014).

Within the vocational education of future teachers, constructive and design activities can be understood as a component of professional practice that is deliberately mastered during preparation for teaching. Their development is connected with the acquisition of subject-specific and pedagogical knowledge and the formation of a professional perspective on organizing the educational process.

In essence, this type of professional pedagogical activity involves not merely preliminary planning but the development of an educational model that can be implemented through the coordinated actions of teachers and students and the creation of appropriate conditions (Boschman et al., 2014; Huizinga et al., 2014; Liaudis, 2000). This understanding is also consistent with research emphasizing the integration of teachers' design knowledge, educational resources, and contextual conditions in the development of learning environments (McKenney et al., 2015). This activity is tied to setting a pedagogical goal, analyzing pedagogical situations, designing the content of education, selecting and organizing educational materials, creating didactic materials, designing creative tasks and assessment procedures, and planning the educational process as a whole.

Therefore, pedagogical design includes the tasks of analyzing the initial pedagogical situation, identifying the educational problem, determining goals and objectives, selecting the content of the educational material, choosing the methods and forms of teaching, forecasting the results, planning assessment, and developing ways to subsequently correct the educational process.

The constructive and design components of pedagogical work are closely connected, although there are certain differences. In this review, the design component primarily relates to forecasting and creating a general model of the future educational process. The constructive component concerns translating this model into specific pedagogical arrangements: selecting and organizing educational materials, determining the sequence of actions of the teacher and students, and developing tasks, assessment procedures, and methods of organizing interaction. Together, these actions transform the general pedagogical idea into a specific educational product. For future teachers, this distinction clarifies the relationship between formulating an educational intention and developing the materials, activities, and procedures required for its implementation.

Studies of teachers' design practices provide a general pedagogical basis for examining these activities. The literature considered in this review addresses teachers' decision making in curriculum design, the development of design expertise, teacher knowledge for technology-enhanced learning, and collaborative design as a form of professional development (Boschman et al., 2014; Huizinga et al., 2014; Kali et al., 2015). These contributions are complemented by research examining the ecological dimensions of teachers' design knowledge and the role of collaborative design in professional development (McKenney et al., 2015; Voogt et al., 2015). Together, these perspectives situate design within teachers' professional practice rather than treating it solely as the preparation of instructional documents.

In the present review, these perspectives are applied conceptually to the vocational education of future teachers. Constructive and design activities are interpreted as integrating subject-specific, pedagogical, methodological, communicative, and creative components of their preparation. Future teachers need to connect general didactic principles with the content of the subject being taught, students' characteristics, and the conditions of the educational setting. This requires attention both to the organization of teaching and to opportunities for learners' participation and personal development.

Readiness for constructive and design activities is therefore considered in this article as an intended outcome of the vocational education of future teachers. It involves the ability to justify educational goals, develop and adapt teaching content, select methods and learning resources, organize interaction, evaluate outcomes, and revise pedagogical decisions. This interpretation emphasizes the connection between pedagogical knowledge and its application in planning and organizing the educational process; it does not constitute an empirically validated model of teacher preparation.

However, understanding design as part of teachers' professional practice does not, by itself, explain how its components should be organized within the vocational education of future teachers. The present review therefore focuses on synthesizing the relevant theoretical concepts and presenting the content, main directions, and stages of these activities as an interconnected framework for teacher preparation.

The purpose of the article was to clarify the theoretical foundations of constructive and design activities in the vocational education of future teachers, systematize their main directions, and characterize the stages of their implementation as a basis for preparing future teachers to plan, organize, implement, evaluate, and improve the educational process.

MATERIALS AND METHODS

The primary research method was a theoretical literature review. This approach was chosen to synthesize existing theoretical perspectives on pedagogical design, clarify the concept of constructive and design activities in the vocational education of future teachers, and systematize their main directions and stages of implementation.

Scientific publications were searched in the international bibliographic and abstract databases Scopus and Web of Science. In addition, the literature base included scientific articles, monographs, teaching aids, and dissertation studies. The present synthesis focuses on theoretical propositions concerning pedagogical design and the organization of educational practice, considering their relevance to the vocational education of future teachers.

Search queries were formed based on keywords and their combinations in Russian and English. The general pedagogical component of the search included Russian-language terms corresponding to "pedagogical design" and "constructive design activity," as well as the English-language terms "pedagogical design," "instructional design," and "teacher design activity." These terms provided the conceptual starting point for the analysis.

The analysis focused on the essence and content of pedagogical design, teachers' constructive and design activities, and the planning, implementation, evaluation, and correction of the educational process. These concepts were interpreted in relation to the knowledge and actions that future teachers need to master during their vocational education. Their application to the preparation of future teachers across subject areas was treated as a theoretical adaptation rather than an empirically established relationship.

The key research methods were theoretical literature analysis, comparative analysis, synthesis, generalization,

classification, and systematization. Theoretical analysis was used to clarify the meaning and interrelationship of pedagogical design and constructive and design activities. Comparative analysis supported the distinction between the development of a general model of the educational process and the specification of its content, learning tasks, and sequence of actions. Classification and systematization served to identify the main directions of constructive and design activities to be mastered by future teachers. Synthesis and generalization were used to formulate a working definition of these activities, characterize their stages, and organize the resulting theoretical propositions into a framework relevant to the vocational education of future teachers.

RESULTS AND DISCUSSION

The theoretical review provides a conceptual account of constructive and design activities in the vocational education of future teachers and systematizes their main directions and stages of implementation. The findings presented below constitute a theoretical framework rather than the results of an implemented teacher education program.

Within this framework, the organization of teaching is considered alongside students' personal development, educational interests, and opportunities for active and creative participation. In the vocational education of future teachers, these concerns define the purposes for which constructive and design skills are developed.

Constructive and design activities in the vocational education of future teachers are understood as a logically organized set of interconnected actions that future teachers learn to perform when analyzing pedagogical situations and planning, organizing, implementing, evaluating, and correcting the educational process. These actions connect educational goals with subject-specific content, teaching methods, learning tasks, forms of interaction, and assessment procedures in accordance with general didactic principles.

The emphasis on logically organized pedagogical actions that take account of the requirements and interests of participants serves as a conceptual starting point for this framework (adapted from Mavrodina, 2019). In the present article, this principle is applied to the vocational education of future teachers across subject areas.

An important aspect of future teachers' preparation is learning to combine didactic consistency with creative flexibility. This involves developing coherent educational plans while remaining able to adapt content, methods, and activities to students' characteristics and the conditions of the educational setting.

Accordingly, the proposed framework emphasizes three interconnected tasks for future teachers:

1. Integrating subject-specific, pedagogical, and developmental objectives when designing the educational process.
2. Taking account of students' psychological and physiological characteristics when selecting educational content, learning tasks, and teaching resources.
3. Developing individual learning trajectories for students with different abilities and educational needs, including gifted students and students with special educational needs.

Key Directions of Future Teachers' Constructive and Design Activities

The following eight directions summarize the constructive and design actions to be mastered within the vocational education of future teachers:

1. Designing educational programs, developing curricula, and adapting educational content to students' age and individual characteristics.
2. Planning lessons and extracurricular activities, determining the goals, objectives, methods, and forms of organization of the educational process.
3. Modeling learning trajectories for the development of students' subject-specific knowledge, practical skills, critical thinking, and creative abilities.
4. Creating methodological materials and developing teaching guides, audio and video resources, interactive tasks, and approaches to integrating digital technologies into teaching (Kali et al., 2015; McKenney et al., 2015).
5. Planning and organizing educational projects, competitions, creative workshops, and practical activities aimed at supporting students' learning and creative development.
6. Designing and constructing learning environments, including their spatial, visual, material, and technical components, and considering the use of digital technologies in the educational process.
7. Choosing practical learning activities for students at particular stages of a lesson or extracurricular activity, taking account of the intended objectives and students' preparedness.
8. Identifying and justifying the choice of subject-specific and general teaching methods and techniques.

Thus, these directions connect the formulation of educational goals with the development of content, activities, resources, and conditions for learning. Within the vocational education of future teachers, they provide a conceptual

Vol 22 | No.113 | November-December | 2026
Continuous publication
e5764

basis for organizing preparation for constructive and design activities rather than treating lesson planning as an isolated professional skill.

Stages of Implementation of Future Teachers' Constructive and Design Activities

The proposed fra mework organizes constructive and design activities into four interconnected stages: preparation, project implementation, reflection, and correction. These stages describe the sequence of actions that future teachers can learn to undertake when developing and implementing an educational project (Figure 1).

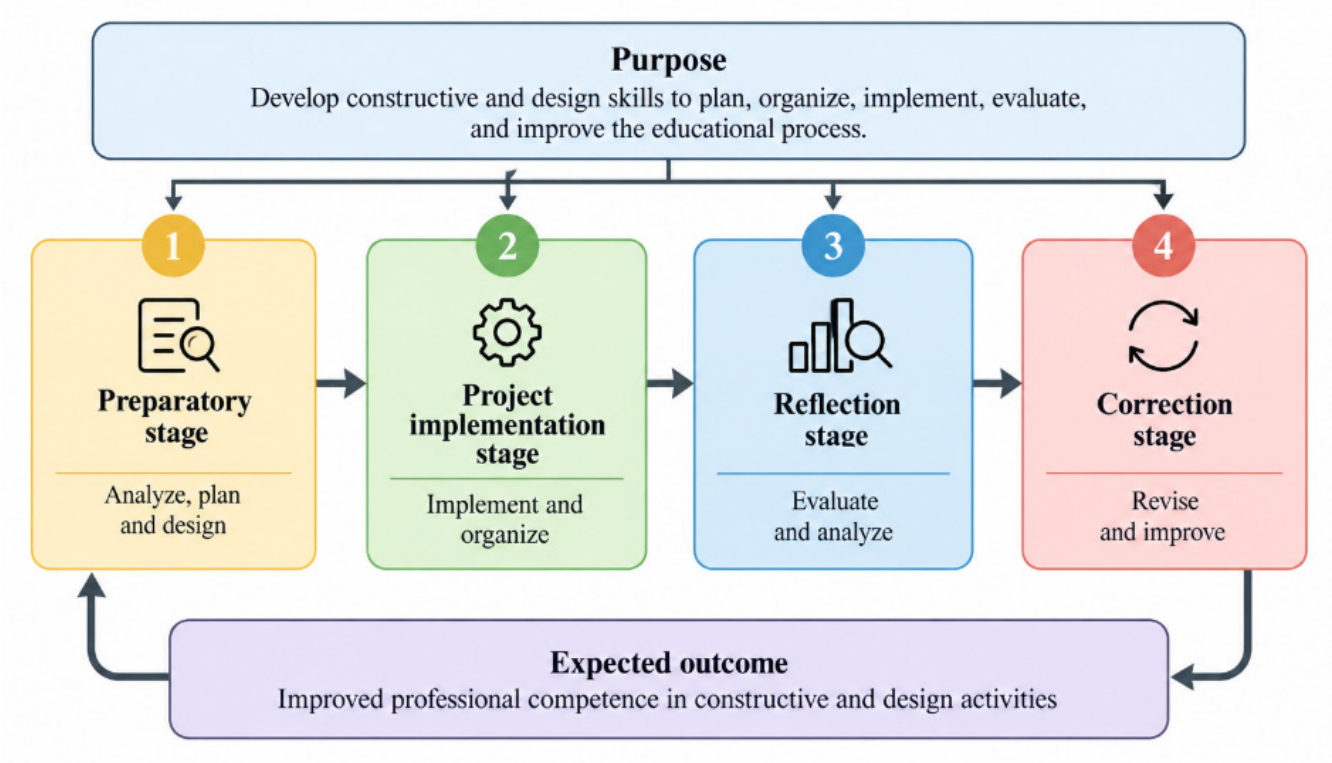


Figura 1. Stages of constructive and design activities in the vocational education of future teachers

1. Preparatory Stage

The purpose of the preparatory stage is to establish the conditions required for project implementation, including psychological and pedagogical, methodological, organizational, and material and technical support. In the vocational education of future teachers, this stage focuses on learning to justify pedagogical decisions and translate an educational intention into a coherent plan.

The preparatory stage may include the following elements of constructive and design activities:

- Formulation of goals and objectives.
- Problem definition.
- Modeling of the planned educational process.
- Assessment of the pedagogical situation.
- Step-by-step planning of project implementation.
- Selection of teaching methods, learning resources, and instructional materials.

The result of the preparatory stage is a developed model of planned pedagogical activity that establishes the purpose, objectives, content, sequence of actions, and conditions for the implementation of the project.

2. Project Implementation Stage

Vol 22 | No.113 | November-December | 2026
Continuous publication
e5764

The subsequent stage of project implementation consists of putting the developed pedagogical model into practice. Within the vocational education of future teachers, this stage concerns learning to carry out planned pedagogical actions, organize interaction, and monitor the educational process.

For example, a future teacher may develop a lesson plan as part of professional preparation and implement it during teaching practice, adapting it to the characteristics of the class and the available resources.

Implementation should be guided by the goals, sequence of actions, and support arrangements established at the preparatory stage. The principle of feedback is of great importance.

The implementation of the feedback principle requires future teachers to critically examine their own actions and use appropriate procedures to monitor the progress of the educational process.

At this stage, future teachers also need to learn to coordinate the actions of project participants while maintaining a clear focus on the project's goals and intended outcomes.

The following actions form the basis of this stage:

- Clarification of the goals and objectives.
- Specification of the sequence of actions of the teacher and students.
- Organization of interaction between project participants.
- Performance of the planned actions.
- Monitoring of the project implementation process.
- Collection of feedback.

The expected outcome of this stage is the practical implementation of the developed pedagogical model and information about its suitability for the intended educational context.

3. Reflection Stage

At the reflection stage, future teachers assess project implementation, analyze its results, and compare the actual outcomes with the initial plan.

The aspects evaluated at this stage are:

- The quality of the implemented project.
- The extent to which the outcomes correspond to the original plan.
- Prospects for further application of the designed product.
- The quality of interaction between project participants.
- The degree of achievement of the set goals and objectives.

The reflection stage requires explicit criteria for assessing the effectiveness and quality of the actions taken and the results achieved.

The assessment can be carried out through various forms of reflection. The task of future teachers is to learn to select suitable forms based on the content of the project, the characteristics of its participants, and the expected results.

The expected result of the reflection stage is an assessment of the implemented project, including the identification of its strengths, the difficulties encountered, and directions for further improvement. Within vocational education, this stage connects the evaluation of a pedagogical product with future teachers' reflection on their own decisions and actions.

4. Correction Stage

The final stage involves revising the educational project when differences between intended and actual outcomes or other difficulties are identified. In the vocational education of future teachers, this stage emphasizes the use of reflection and feedback to improve pedagogical decisions.

The correction stage may involve revisions to:

- Project goals and objectives.
- The content of educational activities.
- The sequence of participants' actions.
- Teaching methods and techniques.
- Organizational forms of activities.
- The methodological resources and technical tools used.
- Methods of evaluating outcomes.

The correction stage may result in a new version of the project, its revised model, integration with other educational projects, or the development of a new pedagogical project.

Thus, the results of the study systematize the content of constructive and design activities relevant to the vocational education of future teachers and present their implementation as a sequence of interconnected stages: preparation, implementation, reflection, and correction. The eight directions describe what future teachers need to learn to design, while the four stages organize the sequence of their actions. Together, they provide a theoretical basis for connecting pedagogical knowledge with the development, implementation, evaluation, and revision of educational projects.

CONCLUSIONS

The constructive and design component of the vocational education of future teachers is considered in this review as a link between pedagogical knowledge and its application in professional practice. Effective design of the educational process requires future teachers to develop not only methodological literacy but also a creative approach and the ability to adapt educational technologies to students' characteristics and specific teaching conditions.

The literature review provides a basis for defining constructive and design activities as a set of interconnected actions aimed at planning, organizing, implementing, evaluating, and correcting the educational process. Within the proposed theoretical framework, these actions integrate subject-specific, pedagogical, methodological, communicative, and creative components of future teachers' preparation and are guided by general didactic principles.

The review has also systematized eight main directions of constructive and design activities relevant to the preparation of future teachers, including the tasks of developing educational programs and curricula, designing lessons and extracurricular activities, modeling individual learning trajectories, creating methodological materials, organizing educational projects and creative activities, designing learning environments, choosing practical learning activities, and selecting teaching methods and techniques.

The implementation of constructive and design activities has been presented as a sequence of four interconnected stages: preparation, project implementation, reflection, and correction. The eight directions specify what future teachers need to learn to design, while the four stages describe how the corresponding actions can be organized. Together, they offer a conceptual basis for preparing future teachers to develop, implement, evaluate, and revise educational projects while taking account of students' age-related and individual characteristics, educational needs, and opportunities for creative development.

The presented theoretical propositions can inform the development of educational programs, academic courses, and methodological materials for the vocational education of future teachers, including their preparation for planning and organizing lessons, extracurricular activities, and educational projects. As the study is theoretical, the practical effectiveness of the proposed framework requires empirical evaluation. Prospects for further research lie in the development of assessment criteria for the constructive and design skills of future teachers and the empirical examination of the framework's applicability across different subject areas and teacher education settings.

REFERENCES

Ballantyne, J., Kerchner, J. L., & Aróstegui, J. L. (2012). Developing music teacher identities: An international multi-site study. ***International Journal of Music Education, 30(***3), 211–226. https://doi.org/10.1177/0255761411433720

Boschman, F., McKenney, S., & Voogt, J. (2014). Understanding decision making in teachers' curriculum design approaches. ***Educational Technology Research and Development, 62***, 393–416. https://doi.org/10.1007/s11423-014-9341-x

Gure, L. I. (2004). ***Proektirovanie pedagogicheskikh sistem***. Kazan National Research Technological University.

Hallam, S. (2010). The power of music: Its impact on the intellectual, social and personal development of children and young people. ***International Journal of Music Education, 28***(3), 269–289. https://doi.org/10.1177/0255761410370658

Hargreaves, D. J., Purves, R. M., Welch, G. F., & Marshall, N. A. (2007). Developing identities and attitudes in musicians and classroom music teachers. ***British Journal of Educational Psychology, 77***(3), 665–682. https://doi.org/10.1348/000709906X154676

Huizinga, T., Handelzalts, A., Nieveen, N., & Voogt, J. M. (2014). Teacher involvement in curriculum design: Need for support to enhance teachers' design expertise. ***Journal of Curriculum Studies, 46***(1), 33–57. https://doi.org/10.1080/00220272.2013.834077

Isbell, D. S. (2008). Musicians and teachers: The socialization and occupational identity of preservice music teachers. ***Journal of Research in Music Education, 56***(2), 162–178. https://doi.org/10.1177/0022429408322853

Kali, Y., McKenney, S., & Sagy, O. (2015). Teachers as designers of technology enhanced learning. ***Instructional Science, 43***, 173–179. https://doi.org/10.1007/s11251-014-9343-4

Liaudis, V. I. (2000). ***Metodika prepodavaniia psikhologii***. URAE Publishing House.

Mavrodina, I. N. (2019). Formirovanie professionalnoi gotovnosti uchitelia muzyki k konstruktivno-proektirovochnoi deiatelnosti [Candidate of pedagogical sciences dissertation, Belgorod State Institute of Arts and Culture].

McKenney, S., Kali, Y., Markauskaite, L., & Voogt, J. (2015). Teacher design knowledge for technology enhanced learning: An ecological framework for investigating assets and needs. ***Instructional Science, 43***, 181–202. https://doi.org/10.1007/s11251-014-9337-2

Mommo, O., Sutela, K., & Mononen, R. (2025). Inclusion and pedagogical support for students with special educational needs in music lessons: A systematic review. ***Research Studies in Music Education, 47***(3), 403–423. https://doi.org/10.1177/1321103X251342143

Monroy-Peñafiel, J. C., Estrada-Girón, A., & Moreno-Tapia, J. (2026). La relación entre docentes y estudiantes en la formación universitaria: experiencias, significados y prácticas de acompañamiento. ***Sophia Research Review***, ***3***(2), 56-65. https://doi.org/10.64092/09x24e73

Triantafyllaki, A. (2010). Performance teachers' identity and professional knowledge in advanced music teaching. ***Music Education Research, 12***(1), 71–87. https://doi.org/10.1080/14613800903568254

Voogt, J., Laferrière, T., Breuleux, A., Itow, R. C., Hickey, D. T., & McKenney, S. (2015). Collaborative design as a form of professional development. ***Instructional Science, 43***, 259–282. https://doi.org/10.1007/s11251-014-9340-7

Wise, S., Greenwood, J., & Davis, N. (2011). Teachers' use of digital technology in secondary music education: Illustrations of changing classrooms. ***British Journal of Music Education, 28***(2), 117–134. https://doi.org/10.1017/S0265051711000039

Conflict of interest: The authors declare that they have no conflicts of interest

Author Contributions

- Author 1 Data curation, Supervision, Writing original draft, Writing review and editing
- Author 2 Formal analysis, Writing review and editing

Conrado publishes its articles under a Creative Commons license: https://creativecommons.org/licenses/by-nc-nd/4.0/deed.es

