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Practices of implementation of competence-based education: Teachers' experiences in the context of changes

Remigijus Bubnys[1]
Ausra Kazlauskiene[2+]
Ramute Gaucaite[3]
Jurgita Lenkauskaite[4]

[1,2,3,4]*Siauliai Academy, Vilnius University, Lithuania.*
[1]*Email: remigijus.bubnys@sa.vu.lt*
[2]*Email: ausra.kazlauskiene@sa.vu.lt*
[3]*Email: ramute.gaucaite@sa.vu.lt*
[4]*Email: jurgita.lenkauskaite@sa.vu.lt*

(+ Corresponding author)

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ABSTRACT

The competence-based education (CBE) offers conditions for achieving educational goals, emphasizing responsible implementation of value-based decisions and current knowledge to foster future development. Within this framework, students are provided opportunities to improve their results. Lithuania's education reform is shifting towards CBE, with teachers' agency playing a crucial role in implementing this approach and shaping students' learning outcomes. To explore how key components of CBE are being integrated into teachers' practices during the preparatory phase of the transition, data was collected through an open-ended survey involving thirty teams of comprehensive school teachers. Content analysis identified several components of CBE, including the connection between learning content and real-life problem situations, co-creative learning agency, teacher-student roles, responsibilities, personalized teaching processes, teachers' perceptions of a good lesson, and the directions of agency in relation to core CBE elements. The study found that teachers already held value-based and ideological foundations of CBE. However, transitioning to an integrated educational culture requires a paradigm shift, enhanced professional agency, and systematic support to facilitate this transformation.

Contribution/Originality: This study enhances the understanding of teacher agency by providing new empirical insights into how competence-based education principles are implemented in daily practice during ongoing educational change. It highlights the factors influencing teachers' decision-making, supporting the development of context-sensitive, meaningful, and sustainable educational innovations.

1. INTRODUCTION

The competence-based education (CBE) approach offers conditions for achieving educational goals, from responsible value-based decision-making to knowledge-driven solutions and the development of future prospects, emphasizing a comprehensive framework for educational success (Marope, Griffin, & Gallagher, 2019). In this educational context, opportunities for students to achieve higher performance are supported amid ongoing changes and uncertainty. Rapid globalization, technological advances, and social shifts encourage learners to become more independent, fostering resilience and adaptability in a constantly evolving environment. In compliance with the European strategic goals (Organisation for Economic Co-operation and Development (OECD), 2018), it is recommended to focus on competencies essential for thriving and shaping the future. These trends emphasize

environments that support independent learning, personal development, effective communication, teamwork, and the ability to operate globally. Skills such as problem-solving and organizing activities are also crucial. Developing these competencies will prepare individuals to meet future challenges and succeed in diverse, interconnected settings. The Communication from the European Commission on Achieving a European Education Area by 2025 (European Commission, 2020) emphasizes the importance of a people-centered policy more than ever. It recommends adopting a holistic approach to teaching and recognizing its true value. The document highlights the goal of improving quality by developing universal skills. Consequently, the education policy prioritizes the development of relevant general competencies as a key objective.

The authors Tahirsylaj and Sundberg (2026) conducted a systematic literature review on the transition to competence-based education (CBE) from 1997 to 2022. They highlight that this phenomenon is continuously evolving, with different countries adapting it uniquely. Nations seek ways to modify education systems to focus less on rote memorization and more on understanding humans and the world. The goal is to enable students to experience themselves, live through their learning, design and implement projects, develop their personalities, and participate in societal and global change. There is a need for a broad set of knowledge, skills, attitudes, and values in action. The competence-based education approach fosters comprehensive personality development, including personal, spiritual, and physical capacities, along with attitudes, knowledge, and skills relevant to daily life and professional spheres. This approach can also help reduce educational inequality by equipping students with diverse skills essential for personal growth and societal participation (Manjong, 2023; Reigeluth & Karnopp, 2020; Sanchez & Ruiz, 2008; Shirley, 2016). However, such educational approach receives contradictions throughout the world, too: some treat it as an instrumental approach to education (Biesta, 2013), others suppose that this leads to separated and fragmentary education but not holistic education (Evans, Landl, & Thompson, 2020; Hopmann, 2007; Willbergh, 2015).

After analysing all supporting and contradicting statements regarding this approach to education, Lithuania's education reform has intentionally shifted towards competence-based education (National Education Agency, 2019). Since 2020, the General Curricula national documents regulating education content and supporting the achievement of learning outcomes for primary, basic, and secondary education, as outlined in Lithuania's Law on Education have been undergoing updates to improve the quality of comprehensive education. During these updates, emphasis is placed on addressing society's key needs within the evolving social and cultural environment, as well as local and school community requirements. Consideration is also given to students' experiences, self-education needs, and interests to ensure the curricula remain relevant and effective (National Education Agency, 2019). Striving to achieve the goals set in the education curricula, the overall attention is focused on the teacher. The concept "The Future of Education and Skills 2030" (Organisation for Economic Co-operation and Development (OECD), 2018) emphasizes the importance of teaching grounded in the belief that teachers play a crucial role in effectively implementing curricula. The Competency-Based Education (CBE) approach aims to connect knowledge with practical action (Baer, 2016). According to Hattie (2012); Rivkin, Hanushek, and Kain (2005) and Darling-Hammond (2000), teacher agency is vital for implementing CBE and achieving positive student learning outcomes. Several research studies (Ouattara et al., 2024; Rychen & Salganik, 2003; Sanchez & Ruiz, 2008) highlight challenges and threats in adopting competence-based education, emphasizing the importance of teachers' agency. Additionally, conditions that foster fragmented perceptions may lead to superficial implementation of CBE, hindering its effectiveness in practice. Ensuring teachers' agency and addressing perceptual barriers are essential for the successful integration of CBE into educational systems.

During the transition to designing the Competence-Based Education (CBE) system, significant changes occur in the classroom, affecting planning, teaching implementation, assessment goals, and their application. The study is based on components identified by Baer (2016) and Hess, Kolby, and Joseph (2020), which are crucial for CBE implementation at the classroom level. These components include the relationship between learning content and real-life problem situations, co-creative agency in learning, teacher–student roles and responsibilities, and a personalized teaching process. The research raises an important question: How are these core components linking content to real-

life contexts, fostering co-creative agency, defining teacher and student roles, and personalizing teaching being practically implemented by teachers as they prepare for a shift toward competence-based education?

1.1. Review of Educational Research: Manifestation of Competence-Based Education in Practice

Competence-based education is increasingly recognized as a transformative system in education. Research on its practical implementation reveals potential and challenges, providing valuable insights. Understanding these aspects helps improve the application of competence-based approaches, fostering more effective educational practices and supporting ongoing development in this evolving field (Hess et al., 2020).

Research papers highlight several key trends regarding the implementation of the CBE model in educational practice. Scholars Gervais (2016), Morrison (2018), and Sampath, Veerendra, Bisoyi, and Pandey (2023), who analysed problems of the definition of CBE, draw a conclusion that there is confusion about the concepts related to CBE. Scholars Morrison (2018) and Levine and Patrick (2019) underline that this reflects a lack of a common conceptual model and clear terminology. Other scholars, such as Baer (2016), Patrick and Sturgis (2017), and Hess et al. (2020), define CBE as an education model focused on skills and demonstrating excellence, where learners progress at their own pace with differentiated teacher support. In this system, learners' progress is recognized only after they clearly demonstrate mastery of defined competencies.

Research by Madsen (2020) and Torres, Brett, Cox, and Greller (2018) highlights that the successful implementation of the CBE model in schools depends on various contextual factors, including a country's educational culture, historical background, and pedagogical attitudes. These scholars identify barriers such as teaching inertia, technical challenges, and political conditions. Evans et al. (2020) further indicate that the influence of these factors varies with the implementation stage, sometimes acting as facilitators and other times as obstacles, emphasizing the complexity of adopting CBE in different contexts.

Scholars such as Baert (2015); Gallardo (2020) and Marzano, Norford, Finn, and Finn (2017) identified key elements for implementing competency-based education (CBE), including personalized learning, effective pedagogical and assessment strategies, technology integration, and teacher competence. Those investigating challenges in CBE implementation, like (Gallardo, 2020; Goldman, Kitto, & Reeves, 2018; Maina, Guàrdia, Mancini, & García, 2023; Sudaryanto & Akbariski, 2021), emphasize that successful practice requires a culture of cooperation, clear competency assessment systems, and organizational support such as curricula, resources, and time.

Researchers note that assessing competencies is a complex aspect of competency-based education (CBE), requiring collaboration among teachers and a clear understanding of evidence of excellence, recording tools, and presentation methods. Challenges include adopting new assessment techniques and resource limitations, which can hinder the effective implementation of competency evaluations. Despite that, Evans et al. (2020), Sudaryanto and Akbariski (2021), and Yen and Thao (2024) underline that properly implemented flexible assessment of competencies may increase student engagement and improve learning results.

Research by Ma, Dong, Jing, Zeng, and Sun (2025) highlights that teachers' professional competencies directly influence students' educational quality and the success of competency-based education (CBE) implementation. Teachers encounter challenges not only related to understanding CBE (Hess et al., 2020; Kazlauskienė, Gaučaitė, Cañabate, Colomer, & Bubnys, 2021) concepts, personalized education strategies, and other essential components but also in recognizing their professional autonomy, as noted by Madsen (2020). The importance of providing conditions that allow teachers to adapt strategies, methods, and other elements of the implementation process to specific educational contexts is emphasized. These adaptations are considered necessary for effective CBE implementation, ensuring that strategies are tailored to the unique circumstances of each educational setting.

The studies indicate that teachers' experiences in implementing key components of competency-based education (CBE) during transition preparation are highly valuable. Their attitudes, practical solutions, and professional autonomy significantly influence how CBE is implemented in the classroom, shaping effective educational practices

and outcomes (Rychen & Salganik, 2003; Sanchez & Ruiz, 2008). Research studies enable assessment of teachers' experiences, identification of challenges, and recognition of support needs. This foundation helps develop sustainable, context-sensitive implementation models adaptable to real educational conditions of competency-based education (CBE) in practice, ensuring effective and tailored educational strategies.

1.2. Theoretical Fundamentals of a Good Lesson in the Context of Competence-Based Education

The current research is based on components highlighted by Baer (2016) and Hess et al. (2020), emphasizing classroom-level factors crucial for implementing CBE. These include the relationship between learning content and real-life problems, co-creative agency, teacher–student roles and responsibilities, and a personalized teaching process (Figure 1).

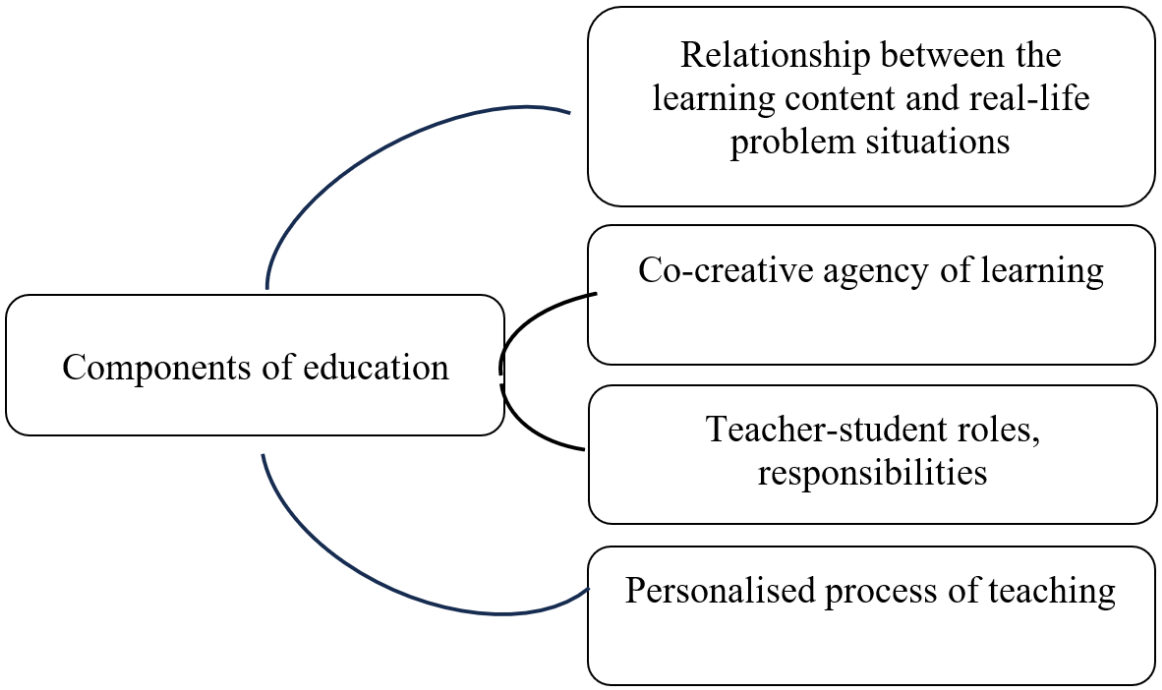

Figure 1. Theoretical model (Baer, 2016; Hess et al., 2020).

Baer (2016) emphasizes that competence is always linked to content; no one can be inherently competent *per se*. A competent individual demonstrates their abilities by acting appropriately in specific situations, applying their knowledge and skills. Discussions on competency-based lessons highlight several key features. Such lessons clearly connect educational content with real-life problem scenarios. It is essential to create conditions that enable learners to apply their knowledge to solve diverse, complex problems that resemble daily routines. These problems are made central, providing close-to-reality learning opportunities (Baer, 2016). School students are encouraged to use their knowledge in meaningful, real-world contexts. The applicability of knowledge and the integration of complex skills into the creation of specific products are particularly emphasized in performance assessments and evidence-based grading (Hess et al., 2020).

The agency of learning based on co-creation is a key feature of competence-oriented lessons. It relies on sharing knowledge about educational content during the learning process. This approach allows learners to compare and verbalize their ideas and mental models, and collaboratively co-create understanding (Baer, 2016). Collective teacher efficacy has high significance to learning (Hess et al., 2020).

A competence-oriented lesson emphasizes active learner engagement. By exploring activities like question formulation, searching for solutions, documenting and interpreting results, setting goals, and self-assessment,

students become responsible participants of the learning process and develop essential skills (Baer, 2016; Hess et al., 2020).

The authors emphasize that competency-based education (CBE) and personalized learning are interconnected (Schleicher, 2016). CBE recognizes students' diverse backgrounds, interests, and learning needs, supporting diversity through flexible teaching strategies and (self-)assessment methods to accommodate individual differences effectively (Baer, 2016; Hess et al., 2020).

Further research results will be interpreted based on the theoretical model developed from the components of a lesson within the CBE context (see Figure 1).

2. METHODOLOGY

2.1. Research Context

In 2019, Lithuania approved the Guidelines for Updating the Comprehensive Curricula, emphasizing the development of Competency-Based Education (CBE). These guidelines identified seven key competencies as learning outcomes: cognition, communication, creativity, civic engagement, cultural, social, emotional, health-related, and digital skills. The process of updating the curricula began in 2020. By 2022, research was conducted to assess schools' readiness to implement the revised curricula. This research aimed to analyze experiences in developing competencies within schools and gather data to inform further curriculum development. It also focused on the education of school principals, deputies, and division heads, aiming to enhance their organizational competencies. Additionally, the study sought to identify other necessary skills for effective curriculum implementation. Schools offering primary, lower secondary, and upper secondary education participated in the survey.

2.2. Research Sampling Criteria

In selecting applicants, priority was given to schools meeting one or more of the following criteria: schools participating in projects funded by the European Commission and the British Council, such as *"Supporting School Principals as Leaders in Curriculum Reform in Lithuania"*; schools that deliver instruction in a language of a specific national minority; school principals or their deputies for education, or heads of divisions responsible for organizing education, involved in municipality teams updating the education curriculum; teachers participating in the revision of comprehensive curricula; and schools with more than 400 students (Description of the procedure for organizing the action research, 2021). The school sampling criteria were selected considering Lithuania's educational reform context, aiming for effective, sustainable implementation aligned with schools' realities and capacities. These criteria focused on ensuring a systematic, strategic, and differentiated approach to reform. Successful reform depends not only on administrative preparation but also on institutional capacity to adapt, engage, and act amid complex educational changes. Therefore, priority was given to schools demonstrating leadership, active participation in national and international initiatives, and the ability to operate within diverse, multicultural, and large-scale educational processes.

The first criterion emphasizes a school's participation in the project "Supporting School Principals as Leaders in Curriculum Reform in Lithuania," funded by the European Commission and the British Council. This reflects a focus on developing educational leadership. Such schools have gained experience in strategic management, possess a deeper understanding of reform processes, and their leaders serve as agents of change. Including these schools early in the reform process creates favorable conditions for smoother management of systemic changes. The second criterion pertains to schools where instruction is conducted in languages of national minorities, emphasizing inclusion and equal opportunities. These schools encounter unique challenges related to bilingual environments, cultural diversity, and adapting educational content. Including such schools in the preparatory process ensures comprehensive reform coverage across all education levels, addresses cultural differences, and facilitates the development of a universally applicable educational model. The third criterion relates to the participation of school principals and their deputies in activities of municipality-level teams responsible for updating educational content. This demonstrates strong

engagement of school communities in local education policymaking and their openness to national-level changes. Such involvement enhances understanding of reform objectives, facilitates information dissemination within schools, and increases opportunities for implementing changes systematically and consistently.

The fourth criterion highlighting teachers' involvement in updating comprehensive curricula, demonstrates their agency. These educators possess a better understanding of the structure and logic of the updated educational content and can provide practical insights to peers. Their participation contributes to the growth of the professional community and ensures the effective implementation of changes at the school level. The fifth criterion, requiring more than 400 students per school, was chosen due to the administrative and organizational capacities of larger schools. These institutions typically have more resources, clearer structures, well-developed management systems, and diverse student groups. Consequently, they serve as suitable pilot sites for implementing reforms. Their experiences can be easily generalized and applied to other educational institutions, facilitating broader reform efforts.

To summarize, these sampling criteria prioritize educational institutions capable of implementing updated curricula and actively participating in educational reform. They aim to disseminate best practices and improve reform effectiveness at the national level, ensuring institutions are not only capable but also proactive in fostering educational change and sharing successful experiences.

2.3. Research Sample

The study involved 30 general education schools, including primary, lower secondary, and upper secondary institutions from various Lithuanian regions. Each school formed a team of 3 to 10 teachers. The research period spanned from October 1, 2021, to April 29, 2022. School teams participated in a semi-structured written survey, with results pending further analysis. To maintain research ethics, the specific school names are not disclosed.

2.4. Research Ethics

This study adhered to the ethical guidelines outlined by the British Psychological Society's Code of Ethics and Conduct, as well as the Declaration of Helsinki, ensuring the protection of participants' rights. Key principles observed included respect for personal privacy, benevolence, and fairness. Data usage was authorized by relevant authorities, and anonymity was maintained throughout analysis. All identifying information related to institutions or individuals was removed. Participants were assigned unique codes, such as I13, where 'I' indicates interviewer, to link data securely without compromising confidentiality.

2.5. Research Methods

The research data was collected through a semi-structured written survey to assess how key CBE components are implemented in teachers' practices during the transition preparation phase. Data analysis utilized inductive (manifest) content analysis to interpret the findings effectively (Assarroudi, Heshmati Nabavi, Armat, Ebadi, & Vaismoradi, 2018; Elo & Kyngäs, 2008; Mayring, 2000). It was aimed at explaining and interpreting teachers' written projections on effective teaching and learning and the content of perfection of these processes, while pointing out key notional units. Texts of answers to specific questions are considered the data analysis units and are examined following key stages. The process begins with open coding, where the qualitative data is carefully reviewed, and codes are noted in the margins to capture various aspects of the content. These codes represent significant ideas, experiences, or phenomena related to the research topic. During this phase, the goal is to mark as many meaningful elements as necessary to fully represent the data. The next step involves transferring the identified codes to coding sheets and systematically grouping them into subcategories. Codes with similar content or context are clustered together, facilitating the identification of recurring patterns and themes within the data. This step includes comparative analysis to highlight shared meanings and relationships. Subsequently, the subcategories are organized into broader, more abstract categories. Each category encompasses several related subcategories, summarizing the

main findings of the study. These categories are labeled with descriptive terms that accurately reflect their content. This hierarchical organization helps create a clear and logical structure, progressing from raw data to more conceptual understandings. The final stage is interpretation, where the researcher analyzes what these categories reveal about the studied phenomenon, their interrelations, the meanings they generate, and their significance in a broader context. Through this interpretative process, insights are derived from the data, addressing research questions and contributing to a deeper understanding of the phenomenon under investigation.

At the initial stage, two researchers conducted primary data analysis to ensure data validity. Subsequently, four researchers reviewed the results together, making additions and corrections based on mutual agreement to ensure accuracy and consensus. The data collection employed content representation and content extraction questions (Ritchie & Lewis, 2003) (see Table 1). The content representation questions helped explore significant participant experiences, while content extraction questions aimed to uncover hidden details within each experience, providing a deeper understanding of participants' attitudes.

Table 1. Constructs of questions.

Basic question	Sources	Questions
How are main components of CBE (Relation of the content to real-life situations, agency of learning based on co-creation, school student and teacher roles and responsibilities, personalised process of teaching) implemented in teachers' practice when preparing for the transition to CBE?	About CBE, relation of the content to real-life situations, agency of learning based on co-creation, school student and teacher roles and responsibilities, personalised process of teaching, good lesson (According to CBE)	***Questions for representation of the content:*** *FUNDAMENTAL REPRESENTATION QUESTIONS* - What is a good lesson? - How do you understand the concept of "competence-based education"? - How does the relationship between educational content and real-life situations manifest in your practice? - How do learning activities based on co-creation reveal in your practice, when school students participate in creating the process of learning or deciding on how to learn? - In your opinion, how do teacher and student roles and responsibilities change? - How does the personalised learning process reveal in your practice? *REPRESENTATION QUESTION* - List three statements that are associated in your mind with a good lesson. - What competencies do you focus on when planning a lesson? - Can you give an example of when the educational content in your lesson was linked to daily life of students, their social or cultural context? - What decisions can be made by students in your lessons? - What role do you usually perform in class: transmitter of knowledge, organiser, facilitator, partner? - How do you regard different needs, abilities or interests of students when planning the educational content and activities?
		QUESTIONS THAT BROADEN THE VIEW - What changes do you seek in your lessons? - What actions and measures do you take when seeking to help students self-develop higher abilities of learning? - What topics or subjects, in your opinion, are most easily related to a real-life context by students? - Were there instances where students proposed a topic, project, or method for completing a task independently? How did the process unfold in those cases? - Do you feel more like a leader or a peer during lessons? Do students have the choice of what or how they learn in your classes?

3. RESULTS

The content analysis results of the research data are illustrated in Figure 2. They reveal the structure of the content in terms of teachers' understanding. The results show the manifestation of CBE components in teachers'

perceptions of a good lesson and their relation to CBE elements. When characterizing a good lesson, teachers highlight key aspects of effective teaching and learning.

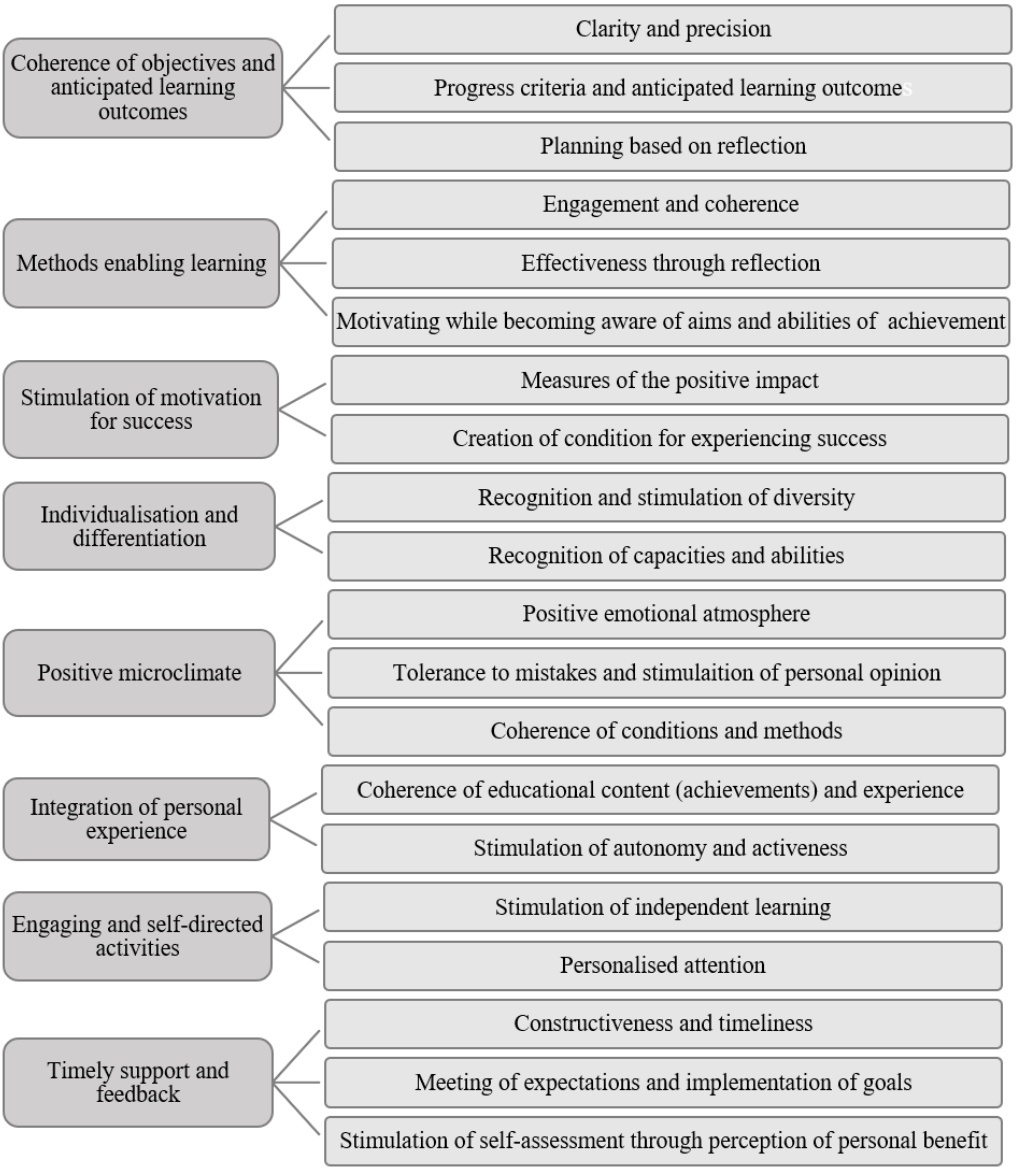

Figure 2. Manifestation of competencies in the education aspect in the teachers' view to a good lesson.

Teachers' contemplation on effective lessons creates a multi-layered structure emphasizing goals, processes, students' experiences, assessment, and emotional environment. This indicates that the components of competency-based education (CBE) are already being reflected and implemented, although not always in a systematic manner.

In teachers' understanding, lesson goals are a crucial factor that influences the overall quality of the learning process. They should be "formulated clearly and precisely" [I21], as clarity benefits both teachers and students [I19]. Goals must be directly linked to expected outcomes and self-assessment criteria, enabling purposeful activity planning and reflection on effectiveness, active, planned, and deliberate activities, encouraging re-evaluation of previous efforts and addressing potential failures [I20].

To teachers, the application of methods is important as a means of engagement and motivation of students. It notes a lack of methodological clarity regarding specific conditions for effective use. A trend toward selecting methods that promote emotional safety, self-reflection, and individual progress is observed, emphasizing that success is often measured by student reflection and feelings of emotional safety [I14].

Teachers regard student success as a key indicator of quality education, achieved through carefully chosen content, engagement, and personal challenges: "Each student experiences success... interesting educational content was chosen" [I7]. Teacher's intrinsic satisfaction, derived from a successful lesson, is also emphasized: "When a teacher feels intrinsic satisfaction after a lesson" [I17].

Although teachers emphasize the importance of individualized and differentiated learning, such as customizing teaching materials [I14], these processes are rarely analyzed in detail. Nonetheless, this suggests a move toward education tailored to students' abilities, needs, and capacities.

A good lesson occurs in an environment where students feel safe to express their thoughts, are not afraid to make mistakes, and are encouraged to collaborate and create. Such an environment fosters an emotional background that motivates students and serves as a crucial precondition for effective learning.

A lesson's content should be closely connected to students' personal experiences and daily routines, emphasizing the relevance of lesson materials to their lives and practical application [I3]. This approach helps knowledge become meaningful, understandable, and useful, allowing students to see its value within their own context. Orientation towards students involves considering their experiences and the significance of the lesson to them [I25].

Teachers believe that a lesson must be "modern, engaging, meeting every student's needs" [I17], and this means not only the selection of methods, but also a focus on every child. Every student must be active, focused, participating – and this is the core of education.

Effective assessment involves not only recording results but also providing timely, motivating feedback [I1]. Teachers view feedback as a tool for students to correct their activities and for reflection on the teaching process. Clear, purposeful reflection guides planning for further self-education [I3].

Based on teachers' experiences of effective lessons, it can be inferred that their views partially align with the components of Competency-Based Education (CBE). However, significant gaps and underdeveloped aspects hinder the full implementation of this educational model. A key principle of CBE the connection of content to real-life, complex situations is often reflected in teachers' responses as an attempt to relate knowledge to students' personal experiences or life contexts. While valuable, this connection frequently remains superficial. There is a noticeable lack of reflection on how educational content could address realistic, interdisciplinary, or social problems that demand critical thinking, creativity, and decision-making. Teachers mainly discuss the applicability of content, but seldom focus on transforming or orienting it toward relevant real-life challenges.

The agency of learning based on co-creation, a key feature of CBE, remains underdeveloped. Although significant attention is given to students' active engagement in activities, the learning process is still perceived as initiated and controlled by teachers. While the relevance of tasks and student engagement are emphasized, there is little mention of joint goal formulation, content construction, or assessment design with students. Consequently, the concept of co-creation remains incomplete: the structure and direction of performance still depend on teachers, with students often seen as recipients rather than co-authors of their learning process.

When examining the transformation of teacher and student roles and responsibilities, a notable change is evident: teachers aim to clearly define learning goals, provide feedback, and encourage reflection. However, this shift is often limited by pedagogical control, meaning teachers still hold primary responsibility for the process. Student self-directedness, including planning and decision-making, remains rarely integrated. The teacher's role is only partially transformed from a knowledge transmitter to a planner and assessor without evolving into a partner or facilitator in the educational process.

Finally, the aspect of personalized teaching is often mentioned more than it is effectively implemented. Teachers frequently cite individualization and differentiation as key features of quality education; however, their descriptions lack specific examples or strategies for practical application. While students' individual needs and abilities are acknowledged, concrete mechanisms such as flexible learning pathways, personalized goals, or recognition of learning

styles are rarely explained. Consequently, personalization remains more of an abstract concept rather than a fully realized educational model.

In summary, a positive shift towards competence-based education (CBE) is evident in teachers' understanding, emphasizing student engagement, addressing individual experiences, and differentiating educational content. However, these elements are often applied in a fragmented manner, with limited integration of problem-solving situations, co-creation culture, and clear personalization strategies. Although the fundamental value of CBE is recognized, there is a need for deeper methodological and conceptual reflection. Systematic changes in teaching and learning practices are essential to fully realize the potential of competence-based education and ensure its effective implementation across educational settings.

3.1. Directions of Teachers' Agency and Their Relation to Major Components of CBE in Practice When Preparing for the Transition to Competence-Based Education

Effective teaching within the CBE framework requires more than just a teacher's existing knowledge. It demands innovative approaches and clear activity directions to achieve practical educational outcomes. Teachers should focus on four key areas that define quality teaching, guiding their performance to deliver high-quality lessons. Emphasizing these directions ensures that instruction aligns with CBE objectives, fostering meaningful learning experiences. This approach highlights the importance of strategic planning and continuous improvement in teaching practices to meet educational standards effectively (Figure 3).

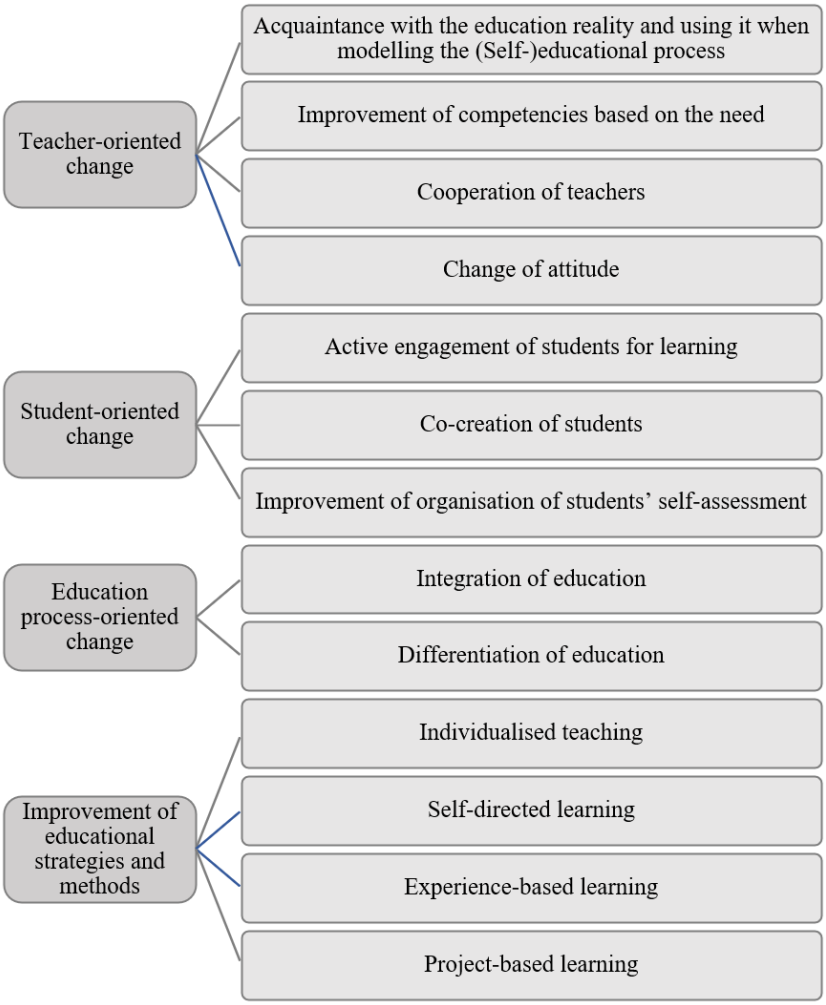

Figure 3. Directions of teachers' agency.

Teachers recognize the need for changes at multiple levels, including their thinking, performance, student engagement, and the overall educational process. When modifying teaching practices, emphasis is placed on professional growth, reflection, and data analysis of student achievements. It is noted that teachers should improve their ability to analyze collected data, such as assessments and self-assessments, to better inform their instruction. There is a desire to better understand students and tailor content to meet their needs. However, these aspirations are often described in general terms without specific actions or decisions outlined. Although goals related to peer collaboration, interdisciplinary integration, and aligning content with practice are discussed, clear guidelines for implementing these changes are lacking.

The emphasis on student-related change highlights a desire for more active, independent, and collaborative learners. Teachers aim for students to co-create and pursue shared goals, fostering responsibility for their learning [I10]. However, these aspirations are often expressed as desired student qualities rather than as organizational responsibilities for teachers. Teachers state the intended outcomes but rarely reflect on their role in achieving them. Additionally, there is a lack of clarity regarding self-directed learning; teachers mention the need for "deliberate and adequate self-assessment during lessons" [I10], but how this will be implemented remains unclear.

In the field of teaching methods, educators emphasize creativity, engagement, and the importance of digital technologies. However, they often only mention methods such as "STEAM, STREAM, project-based activities" without providing detailed context or explaining their application. This indicates that teachers recognize activity characteristics as indicators of quality, but these aspects are usually presented fragmentarily and lack in-depth analysis. For instance, they state the need "to use more creative educational methods" [I12], but do not consider how these methods contribute to deeper learning or skill development of competencies.

When addressing changes in the education process, teachers emphasize differentiation and personalization, especially for students with higher achievements. They highlight the need to design "individualized and personalized lessons" [I11] and to integrate theory with practice, aiming for "coherence of theory and practice" [I5]. However, these efforts often remain abstract ideas rather than concrete actions. The connection to real-life situations is more aspirational than practical, with a recognized need to apply knowledge. Nonetheless, real-world problem situations that reflect complex perceptions are frequently absent, limiting the practical application of these educational strategies.

Based on teachers' agency directions, teacher-oriented change, student-oriented change, educational process change, and improvement of strategies, we can assess how effectively these directions address the four main components of Competency-Based Education (CBE).

The relationship between content and real-life situations primarily relates to the direction of educational change and the enhancement of teaching strategies. Educators stress the importance of integrating theory with practice and encouraging the application of knowledge ("Integration of educational content with practical activities" [I23]). However, these efforts are often expressed declaratively without clear implementation of real, contextual, or problem-based scenarios. There is a limited understanding of how content should assist students in handling unpredictable, significant real-life situations; consequently, this component is implemented with notable limitations.

The co-creative agency of learning is primarily recognized in the field of student-oriented change, where teachers aim to develop students' collaboration, responsibility, and engagement ("to co-create, to seek a goal together" [I10]). However, these efforts are often described as anticipated changes in student behavior rather than as a deliberately organized co-creation process. The focus on teacher-oriented change does not reflect the teacher's role in stimulating this process. Consequently, co-creation remains an aspirational outcome rather than an active pedagogical practice.

The transformation of roles and responsibilities for teachers and students encompasses both teacher-oriented and student-oriented changes. Teachers recognize the need to improve reflection, clarify goals, and foster student independence. However, they often view these responsibilities as tasks delegated to students rather than as part of a shared, intentionally developed culture. For example, the importance of students' self-assessment is emphasized

("Students' deliberate and adequate self-assessment" [I10]), but there is little guidance on how teachers support or structure this process. This indicates that role implementation remains incomplete.

The personalized learning process primarily relates to changes in education and the enhancement of strategies and methods. Teachers emphasize the need for differentiation, individualization, and the development of self-directed learning ("Activities of differentiated, individualized, and personalized lessons" [I11]; "To improve students' self-directed learning" [I7]). However, these goals are often presented as abstract guidelines without specific strategies, measures, or examples of their application across diverse student groups or contexts. Consequently, personalisation is more a goal or aspiration than a concrete practice, highlighting the gap between intentions and implementation in educational settings.

4. DISCUSSION

The elements in competence-based education singled out by Baer (2016) and Hess et al. (2020) at a lesson level provided conditions for assessment of teachers' agency, aiming to implement the components of CBE.

An element of the personalized education process involves enabling learning methods highlighted by teachers, engagement, self-directed activities, and the integration of personal experience. Teachers' perspectives on effective lessons within competency-based education (CBE) emphasize the importance of engagement and self-directed learning, fostering independence and personalized attention. Researchers such as (Freeman et al., 2014; Patrick & Sturgis, 2017) note that students learn actively through various pathways. Effective methods should stimulate activity, involve students in the learning process, and promote higher-level thinking, creativity, and initiative, thereby enhancing overall educational outcomes (Freeman et al., 2014). The effectiveness of these methods, revealed through reflection, aligns with the CBE approach, where students intentionally consider teaching and learning processes (Earl, 2012). The necessity of engaging students in their learning, as emphasized by surveyed teachers, indicates that performance projection when organizing competence-based lessons shifts away from factual knowledge. Enabling methods create conditions for active, self-directed learning, fostering student involvement and promoting deeper understanding beyond mere memorization (Baer, 2016). Research demonstrates that new knowledge and abilities are built when students actively participate in learning (Kazlauskienė et al., 2021; Whalen, 2019).

The research highlights the integration of personal experience in learning. Scholars Albrecht and Karabenick (2018) emphasize the importance of helping students connect school activities with their lives. A personalized approach fosters conditions for linking learning to learners' experiences. When experience is integrated, knowledge becomes contextual rather than symbolic, revealing diverse experiences and leveraging their benefits. Teachers' perspectives on personalized teaching under competency-based education (CBE) focus on learner diversity, self-directed learning, and goal achievement. However, teachers' experiences often lack emphasis on evidence-based assessment, self-assessment, and reflective practices.

The concept of co-creative agency in learning includes motivation for success, a positive microclimate, and aligned objectives with expected outcomes. Implementing competency-based education (CBE) requires fostering intrinsic motivation and maintaining a supportive microclimate for effective learning (Elliot & Thrash, 2001; Pajares, 2003; Schunk & Zimmerman, 2007). Motivation for success and achievement is a key condition for teaching, lesson quality, and high student attainments (Helmke, 2009; Liem, 2021). The research identified strong connections between effective learning environments and students' motivation for personal growth. Teachers foster these conditions by implementing appropriate measures, ensuring each learner experiences success and builds self-confidence based on their individual abilities.

The research revealed coherence between objectives and learning outcomes in aspects such as clarity, progress criteria, and reflection-based planning. Wiliam (2017) highlights the benefit of jointly defining aims with students, calling it "co-construction formulation," which fosters high achievement in learning. Teachers emphasize clarity to make objectives more accessible to students. Jensen and McConhie (2020) stress the importance of student-friendly

language while learning the official subject language in parallel. Research shows teachers' strong agency in ensuring progress criteria, influencing student engagement and mastery of learning (Kazlauskienė et al., 2021). Clear criteria may reduce anxiety and promote self-regulated learning strategies, yet may also limit independence and creativity (Jönsson & Prins, 2019). In this process, teachers' roles shift towards acting as learning coaches rather than mere content deliverers.

The roles and responsibilities of teachers and students are demonstrated through timely support and feedback, individualization, differentiation, and enabling learning methods. Effective feedback emphasizes constructiveness, timeliness, goal achievement, and assessment stimulation based on personal benefit perception. Teachers' agency in providing guidance is crucial for co-creating shared responsibility for learning, fostering a collaborative educational environment that promotes active engagement and continuous improvement (Wiliam & Leahy, 2015). Teachers' use of individualization and differentiation enhances lesson quality by recognizing learner diversity, fostering engagement, and supporting each student's abilities. While inclusion, engagement, and attention to all are central in competency-based education (CBE) (Deunk, Smale-Jacobse, de Boer, Doolaard, & Bosker, 2018; Lindner & Schwab, 2025), teachers still hold most decision-making authority, adapting instruction to help students meet expected goals. Despite being longstanding, differentiation and individualization pose practical challenges, which teachers often see as professional difficulties (Schleicher, 2016). CBE presents the challenge of implementing personalized learning, which is often treated as isolated elements rather than an integrated system. Teachers highlight the potential of diverse methods to engage students intentionally, but research indicates that focusing on method variety can overlook content, purpose, and effectiveness. Resistance to changing established teaching practices also hinders CBE adoption (Evans et al., 2020).

The element of the relationship between learning content and real-life problem situations did not prevail in teachers' projections. This indicates that implementing an integrated approach in lessons remains a challenge for educational practice.

The research revealed three directions of teachers' agency: teacher-oriented, student-oriented, and process-oriented change. Teacher-oriented change involves attitudes, as teachers see themselves as agents who can transform education by changing their own approach. Efforts to understand educational reality relate to planning, evaluation, assessment, and self-assessment, which in CBE must target deeper learning (Black & Wiliam, 2018). Such assessment remains challenging for teachers (Gaučaitė & Kazlauskienė, 2019). Teachers also highlight the need for peer collaboration to improve competencies (Black & Wiliam, 2018). CBE encourages students to take responsibility for learning (Mohammed & Kinyo, 2020). Student-oriented change reflects teachers' expectations for greater student engagement, particularly in self-assessment, a key factor in motivating learning (Taras, 2010; Wiliam & Leahy, 2015).

Teachers describe the education process-oriented change as part of the shift toward competence-based education. They emphasize the need to improve differentiation and integration, though without a broader context. Integration is viewed thematically, while competency-oriented education requires interdisciplinary, contextualized approaches (Meyer, Rose, & Gordon, 2014). Teachers recognize the need for diverse teaching strategies but mostly list them, indicating theoretical awareness without clear practical implementation pathways (Dragoo & Barrows, 2016; Evans et al., 2020).

4.1. Limitation

The limitations of the study mainly relate to its sample specificity and study design. The focus was on schools that had already engaged in educational content renewal or change projects, which may skew results toward the experiences of more active and motivated teachers. This introduces potential selection bias, as less prepared or more skeptical teachers and schools might not have participated. Additionally, the use of a semi-structured written questionnaire restricts the depth of data collection. Unlike interviews or observations, it does not allow for follow-up questions or exploration of answer contexts, limiting insights into underlying factors.

Although the qualitative content analysis method used in the study enabled systematic data structuring and meaningful category identification, it remains inherently interpretative. The researchers' efforts to enhance reliability through collective reflection and triangulation strengthen the validity of the findings. However, the results still reflect the researchers' conceptual interpretation based on respondents' texts. Consequently, the insights should be viewed as a meaningful reconstruction of teachers' experiences and attitudes within a specific educational change context, rather than as universally generalizable phenomena.

4.2. Implications

The study enhances theoretical discussions on pedagogical culture amid reforms, demonstrating that despite clear CBE guidelines, teachers' beliefs and reflective abilities influence reform implementation. It emphasizes the importance of examining not only structural reform aspects but also professional and cultural factors affecting their reception at the school level.

The results alter previous views on reform implementation: rather than assuming that new programme documents are enough, the study indicates that success relies on teachers' reflective practice and their willingness to transform their work. Merely providing information or enforcing guidelines from the top down does not guarantee qualitative change; dialogue, meaning-making, and internal commitment are crucial. This insight shifts policy strategies toward decentralized, context-sensitive approaches where schools serve as change agents. Such strategies foster inclusive educational design, collegial partnerships, and the development of a sustainable learning ecosystem, emphasizing the importance of internal motivation and collaborative efforts for effective reform.

The study offers insights into Lithuanian teachers' perceptions and application of competence-based education (CBE). While its core elements are reflected in teachers' views, actual implementation often remains superficial, fragmented, or limited to declarative goals. Without targeted interventions, CBE risks staying fragmented rather than becoming transformative. Consequently, this research serves as a vital starting point for policymakers and schools, emphasizing the real challenges in transitioning from traditional to competence-based education systems.

The study is relevant to educational change, highlighting gaps in support, resources, and competencies for CBE implementation. These insights can inform the development of qualification programs, methodological guidelines, and models emphasizing student empowerment, self-governance, and reflection. Additionally, it contributes to international discourse by presenting a national case study that identifies prerequisites and obstacles for systemic change within a specific context.

Future research should explore teachers' professional activities, their development of personalized learning strategies, and the manifestation of co-creation in classrooms. Long-term observations and action research are essential to evaluate progress. Studies involving school leaders and policymakers can shed light on the creation of supportive infrastructures. Comparative research across Lithuania and internationally may identify universal success factors and cultural influences on CBE practices.

5. CONCLUSION

The study's results indicate that teachers' perceptions of effective lessons and their reflections on the educational process are increasingly aligning with the components of competence-based education (CBE). It is observed that elements such as the relevance of educational content, student engagement, personalized learning, and clear learning objectives are already integrated into teachers' thinking as vital aspects of quality education. However, these components are often not yet implemented as a cohesive, intentionally designed system. Instead, they tend to exist as fragmented practices or aspirations that are not always grounded in clear pedagogical strategies. This suggests that, although the value-based and conceptual foundations of CBE are present in teachers' practices, its full implementation requires more in-depth professional reflection, methodological consistency, and structural support.

The study concludes that implementing competency-based education (CBE) requires more than updating teaching content; it demands a paradigm shift in educational culture. Teachers must transition from merely transmitting knowledge to becoming co-creators of the learning process alongside students. Teacher agency defined as their capacity to make educational decisions, craft meaningful learning experiences, and support student self-regulation is crucial. The study also found that personalisation is often misunderstood as simply providing individualised content, but it rarely involves designing flexible learning pathways or encouraging active student participation in planning their education.

These insights indicate that to effectively implement the core components of competency-based education (CBE), it is essential to enhance teachers' methodological skills, promote collegial collaboration, and foster an organizational culture that encourages innovation and professional reflection. The study offers a valuable foundation for strategic school development and education policy decisions, emphasizing not only the introduction of new programs but also the creation of conditions that support their sustainable and meaningful integration into educational practice.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
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