



DEVELOPING PERSONALIZED LEARNING TECHNOLOGIES IN LOWER-SECONDARY ENGLISH LANGUAGE TEACHING IN UZBEKISTAN: A CONTEXTUALIZED MODEL AND EVALUATION FRAMEWORK

Hojiyeva Maftuna Ulug‘bekovna

A. Avloni Institute of Pedagogical Excellence (Uzbekistan)

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Abstract

Personalized learning (PL) is increasingly positioned as a practical pathway for improving learner engagement and achievement by tailoring content, pacing, and learning routes to individual needs. In English language teaching (ELT), PL is especially relevant because learners enter classrooms with heterogeneous proficiency levels, motivational profiles, and access to learning resources. This article develops a contextualized PL model for lower-secondary ELT in Uzbekistan and proposes an evaluation framework aligned with national education reforms and foreign language policy priorities. Drawing on research in differentiated instruction, formative assessment, learner autonomy and motivation, and blended learning, the model integrates (i) learner profiling (diagnostics and ongoing evidence from learning tasks), (ii) flexible learning pathways (choice, tiered tasks, station rotation, and optional digital supports), (iii) feedback-rich assessment (rubrics, portfolios, and reflection), and (iv) teacher facilitation supported by focused professional learning. The evaluation design follows a quasi-experimental logic complemented by qualitative implementation evidence (classroom observation, learner questionnaires, and portfolio artifacts) in grades 5–6 across general secondary schools in Jizzakh and Andijan regions and Tashkent city. By articulating implementable components and measurable indicators, the paper offers a locally relevant framework for PL in ELT that can guide pilot implementations and dissertation-level research while highlighting constraints such as classroom management shifts, teacher role transformation, and equitable access to learning resources.



Keywords: Personalized learning; English language teaching; lower-secondary education; Uzbekistan; differentiated instruction; formative assessment; blended learning; learner autonomy.

Introduction

Across education systems, digital transformation, competency-oriented curricula, and the demand for transferable skills have intensified the need to redesign learning so that it responds to learners' differences rather than treating classrooms as homogeneous units. Uzbekistan's strategic vision for general education emphasizes modernization, learning quality, and participation in international benchmarks. In parallel, foreign language policy reforms have prioritized expanding access to English and strengthening instructional quality through modern methods and technology support. Within this context, the question is not whether schools should adopt more learner-centered practices, but how to operationalize them in ways that are feasible for teachers and measurable for researchers (U.S. Department of Education, 2017).

ELT in grades 5–6 is a particularly relevant locus for personalization. Learners at this stage show widening gaps in proficiency and learning pace, while also undergoing cognitive and socio-emotional changes that shape motivation and self-regulation. Personalized learning is often misunderstood as either fully individualized instruction or merely the use of technology. A stronger conception treats PL as a coherent system of practices that aligns learning goals, instructional pathways, and assessment evidence with learners' needs and agency (Basham et al., 2016).

This article synthesizes international research on PL and adjacent constructs (differentiation, formative assessment, learner autonomy, and blended learning) and adapts them into a practical model for grades 5–6 ELT in Uzbekistan. It also outlines an evaluation framework that can be used to study implementation and learning outcomes through mixed methods. The paper is grounded in the author's dissertation agenda focused on developing and improving methods for implementing personalized learning technologies in grades 5–6 English lessons across general secondary schools in Jizzakh and Andijan regions and Tashkent city.



Conceptual and Research Foundations

Defining personalized learning. Research and policy documents commonly describe personalized learning as instruction that targets individual learning needs while incorporating students' interests and preferences, supported by data and flexible instructional decisions. Large-scale field research indicates that PL is not a single method but a bundle of design characteristics—goal clarity, choice, progress monitoring, and targeted supports—that can be enacted with or without sophisticated technology (Pane et al., 2017; Walkington & Bernacki, 2014).

In language learning, personalization intersects with individual differences and the need for communicative use. Bibliometric mapping of personalized language learning research from 2000–2019 shows increasing focus on mobile learning, game-based learning, and online environments, while emphasizing that personalization requires pedagogical scaffolding and clear objectives rather than tools alone (Chen et al., 2021).

Theoretical anchors: development, autonomy, and self-regulation. A personalization model for lower-secondary ELT benefits from socio-cultural and cognitive perspectives. Vygotsky's zone of proximal development highlights calibrating tasks to what learners can do independently versus with guidance (Vygotsky, 1978). Metacognition and cognitive monitoring help learners plan, check, and adjust strategies during language practice (Flavell, 1979). From a motivational standpoint, Self-Determination Theory identifies autonomy, competence, and relatedness as core psychological needs; PL designs that provide meaningful choice, appropriately challenging tasks, and supportive interaction can strengthen these needs and sustain engagement (Deci & Ryan, 2000).

Instructional technologies: differentiation, blended learning, and feedback. Differentiated instruction offers practical tools for tailoring tasks and support to learner readiness, interests, and learning profiles (Tomlinson, 2014). In ELT, differentiation can be enacted through tiered tasks, flexible grouping, and varied input/output modalities. Blended learning models—especially rotation structures—can further support personalization by distributing learning time across teacher-led, collaborative, and independent stations, including online practice when available (Horn & Staker, 2015). Finally, formative assessment provides the feedback logic that makes personalization sustainable: evidence from tasks and learner products is used to adapt instruction, guide next steps, and develop self-assessment habits (Black & Wiliam, 2009).

A Contextualized Personalized Learning Model for Grades 5–6 ELT

The proposed model is designed for real-world lower-secondary classrooms, where class size, lesson time, and teacher workload constrain the degree of individualization possible. The model therefore emphasizes structured flexibility: a limited set of reusable routines that create multiple pathways without multiplying preparation demands. Four components form the model's core.

Model component	Classroom practices (examples)	Evidence/indicators
Learner profiling	Short diagnostic tasks; quick proficiency checks; interest survey; learning goals; learner profiles updated every 2–3 weeks.	Baseline and periodic task scores; learner goal statements; survey results; teacher notes.
Flexible pathways	Tiered tasks (A/B/C levels); choice boards; station rotation (teacher, peer/collab, independent/optional online); mini-project options.	Task routes; time-on-task; quality of outputs; participation patterns.
Feedback-rich assessment	Rubrics for speaking/writing; portfolio of products; reflection logs; peer feedback routines; conferencing.	Rubric levels over time; portfolio growth; reflection quality; feedback uptake.
Teacher facilitation & support	Facilitator role; micro-scaffolding; targeted mini-lessons; classroom management routines; professional learning cycles.	Observation protocol ratings; teacher reflections; routine consistency; learner autonomy signals.

Learner profiling. Profiling is implemented through low-stakes diagnostic tasks and short questionnaires that capture readiness (current performance), interests (topics and formats learners prefer), and learning strategies. In grades 5–6 ELT, quick diagnostics can include vocabulary/grammar checks, short reading comprehension tasks, and oral performance prompts. The purpose is not labeling learners but improving instructional decisions and goal setting.

Flexible pathways. Based on profiles, each lesson or weekly plan offers a small set of alternative routes toward the same learning objective. For example, learners may choose between listening-first versus reading-first input, structured versus semi-structured speaking tasks, or two project topics that use the same target language. Station rotation is recommended when feasible: teacher-led instruction targets specific needs; collaborative stations emphasize communicative practice; independent stations provide deliberate practice and retrieval (paper-based or digital).



Feedback-rich assessment. Formative assessment is the model's engine. Teachers use concise rubrics and feedback prompts tied to objectives (e.g., fluency, accuracy, range, interaction). Portfolios (digital or paper) store products and make progress visible. Reflection logs encourage metacognitive monitoring: learners describe what was easy/hard, which strategies helped, and what they will do next. Teacher facilitation and professional learning. Evidence from case studies suggests that implementation challenges often relate to structuring the learning environment, setting expectations for work quality, and transferring control to students (Netcoh & Bishop, 2017). The model therefore prioritizes clear routines (entry task, rotation timing, exit ticket, feedback cycle) and short professional learning sequences: planning differentiated tasks, using rubrics, and managing rotation classrooms.

Evaluation Framework and Methods

Design and setting. The evaluation framework aligns with mixed-method logic, combining learning outcome measures with implementation evidence. In the dissertation context, the target population is grades 5–6 learners in general secondary schools, with field sites in Jizzakh and Andijan regions and Tashkent city. A quasi-experimental structure can be used by assigning intact classes to experimental and comparison conditions where random assignment is not feasible (Creswell, 2012).

Data sources and instruments. Quantitative outcome evidence can include pre/post measures aligned with communicative competence (e.g., short reading tasks, listening comprehension, speaking/writing prompts scored with analytic rubrics). Learner questionnaires can capture motivation and perceived competence. Qualitative and process evidence can include structured classroom observations, teacher reflective notes, and portfolio artifacts. If digital tools are used (e.g., LMS logs or quiz platforms), learning analytics such as completion rates and error patterns can complement traditional assessment without replacing it.

Procedure. A practical evaluation cycle includes (i) baseline diagnostics and profiling; (ii) an intervention period (e.g., 8–12 weeks) where lessons follow the model routines; and (iii) post-intervention assessment and portfolio review. Throughout, teachers collect formative evidence (exit tickets, short checks, rubric

snapshots) to adjust instruction. This combination supports both effectiveness and implementation analysis (Black & Wiliam, 2009).

Analysis strategy. For quantitative outcomes, descriptive statistics and group comparisons (e.g., t-tests or ANCOVA with baseline adjustment) can estimate learning gains. For qualitative data, thematic analysis can identify patterns in learner autonomy, classroom participation, and teacher facilitation practices. Triangulation across tests, observations, and artifacts strengthens interpretive validity. **Discussion: Implementation Constraints and Pedagogical Implications** Personalized learning is most successful when treated as a coherent classroom system rather than isolated techniques. The proposed model ties planning (profiles), instruction (pathways), and assessment (feedback loops). Three constraints are salient for lower-secondary ELT in Uzbekistan and similar contexts.

First, classroom management and teacher identity shifts can create resistance, as PL reduces whole-class control and increases learner agency. Implementation should start with limited routines (e.g., two stations rather than four) and gradually increase flexibility (Netcoh & Bishop, 2017). Second, equity of access matters: PL should not depend on high-end technology. Paper-based pathways, offline resources, and shared devices can still support choice and differentiation. Third, assessment culture can undermine PL if evaluation is framed only as grading. Building teacher capacity in formative assessment and rubric use is therefore essential (Black & Wiliam, 2009; Marion et al., 2020).

For ELT specifically, personalization must preserve communicative goals (Canale & Swain, 1980). Learner choice should be aligned with meaningful language use—interaction, interpretation, and production—rather than only individualized drill. Portfolios and mini-projects can connect language objectives to real-life topics and support reflection, while rotation models can protect time for speaking practice by organizing classrooms more efficiently (Horn & Staker, 2015).

Conclusion

This paper proposed a contextualized personalized learning model for grades 5–6 ELT in Uzbekistan and outlined an evaluation framework integrating outcome measures with implementation evidence. Grounded in differentiation, formative assessment, learner autonomy, and blended learning, the model prioritizes structured flexibility: learner profiling, multiple pathways, feedback-rich



assessment, and teacher facilitation. Future work should pilot the model with sustained professional learning and examine effects on communicative competence, learner motivation, and self-regulation under varied school resource conditions.

References

1. Basham, J. D., Hall, T. E., Carter, R. A., Jr., & Stahl, W. M. (2016). An operationalized understanding of personalized learning. *Journal of Special Education Technology*, 31(3), 126–136.
2. Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21, 5–31.
3. Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1–47.
4. CAST. (2018). *Universal Design for Learning Guidelines version 2.2*. CAST.
5. Chen, X., Zou, D., Xie, H., & Cheng, G. (2021). Twenty years of personalized language learning: Topic modeling and knowledge mapping. *Educational Technology & Society*, 24(1), 205–222.
6. Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Pearson.
7. Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
8. Dewey, J. (1916). *Democracy and Education*. Macmillan.
9. Dörnyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Lawrence Erlbaum.
10. Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
11. Horn, M. B., & Staker, H. (2015). *Blended: Using Disruptive Innovation to Improve Schools*. Jossey-Bass.
12. Marion, S., Worthen, M., & Evans, C. (2020). How systems of assessments aligned with competency-based education can support equity. Aurora Institute & Center for Assessment.

13. Netcoh, S., & Bishop, P. A. (2017). Personalized learning in the middle grades: A case study of one team's successes and challenges. *Middle Grades Research Journal*, 11(2), 33–48.
14. OECD. (2005). The definition and selection of key competencies: Executive summary. OECD.
15. Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2017). Informing progress: Insights on personalized learning implementation and effects. RAND Corporation.
16. Piaget, J. (1970). *Science of Education and the Psychology of the Child*. Orion Press.
17. Richards, J. C., & Rodgers, T. S. (2014). *Approaches and Methods in Language Teaching* (3rd ed.). Cambridge University Press.
18. Rogers, C. R. (1969). *Freedom to Learn*. Charles Merrill.
19. Tomlinson, C. A. (2014). *The Differentiated Classroom: Responding to the Needs of All Learners* (2nd ed.). ASCD.
20. U.S. Department of Education, Office of Educational Technology. (2017). *Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update*.
21. Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
22. Walkington, C., & Bernacki, M. L. (2014). Motivating students by “personalizing” learning around individual interests: A consideration of theory, design, and implementation issues. *Educational Psychology Review*, 26(1), 9–25.
23. O‘zbekiston Respublikasi Prezidenti. (2019). PF-5712-son: O‘zbekiston Respublikasi Xalq ta’limi tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida. Lex.uz.
24. O‘zbekiston Respublikasi Prezidenti. (2021). PQ-5117-son: O‘zbekiston Respublikasida xorijiy tillarni o‘rganishni ommalashtirish faoliyatini sifat jihatidan yangi bosqichga olib chiqish chora-tadbirlari to‘g‘risida. Lex.uz.
25. O‘zbekiston Respublikasi Vazirlar Mahkamasi. (2022). 34-son: Xorijiy tillarni o‘rganishni takomillashtirish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida. Lex.uz.