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DEVELOPING CREATIVITY COMPETENCE IN PROSPECTIVE PRIMARY SCHOOL TEACHERS: CONTENT, COMPONENTS, AND EDUCATIONAL CONDITIONS

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ABOUT ARTICLE

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Abstract: This article presents a design-based framework to cultivate creativity competence (CC) in prospective primary teachers. CC is articulated through motivational, cognitive, action-oriented, and reflective components, translated into indicators, tasks, and assessment rubrics. We integrate creative problem solving, project-/problem-based learning, developmentally appropriate practice, teacher-student relationships, school library workshops, and the EU's key competences perspective. The model aligns with 4C creativity theory and draws on TTCT-linked criteria (fluency, flexibility, originality, elaboration). We provide ready-to-deploy materials (a 4×4 CC rubric, a four-week CPS/PBL module, PLC routines, monitoring tools). Evidence on teacher impact and relationships is considered in light of meta-analytic syntheses.

Introduction. Creativity competence (CC) is central to primary education where teachers design open-ended inquiry and collaborative knowledge-building. We frame CC as a composite of motivational, cognitive, action-oriented, and reflective capacities informed by CPS traditions[14] and TTCT-derived criteria[15]. Inclusive DAP environments[2] and relational trust[4] act as enablers; library-centered workshops extend cultural-linguistic repertoires[1][9]. The EU's Key Competences recommendation situates creativity within a

broader competence framework[12], while the 4C model bridges everyday mini-c to professional Pro-C creativity[11]. Meta-analytic evidence underscores the role of the teacher and relationships in learning gains[13].

1. Literature Review and Conceptual Background

Cross-cultural conceptualization highlights how metaphors and cultural images expand ideational spaces[1]. DAP aligns pedagogy with learners' trajectories[2]. Teacher–student relationships support engagement and climate[4], consistent with high-impact influences catalogued in Visible Learning[13]. The 4C model distinguishes mini-c, little-c, Pro-C, and Big-C creativity, offering developmental pathways for teacher education[11]. Creative leadership literature positions CPS as a disciplined framework for innovation in schools[14]; assessment anchors (fluency, flexibility, originality, elaboration) draw from TTCT scholarship[15].

Materials and methods. 2. Design and Corpus

We conducted a conceptual–synthetic review informed by ten PDFs provided by the author and five complementary sources [11][12][13][14][15]. A design-based orientation was used to translate insights into deployable artefacts (rubrics, lesson scripts, PLC routines).

3. Inclusion Criteria and Screening

Inclusion targeted primary/early-childhood contexts, creativity/critical thinking, enabling conditions (relationships, climate, PLC), library workshops, and well-being.

4. Thematic Coding and Synthesis

Open and axial coding mapped claims to CC components and instructional designs; selective coding yielded an integrative model and instruments.

5. Trustworthiness and Ethics

Triangulation across heterogeneous sources; audit trail from claims to designs; ethical deployment guards (assent/consent, privacy, culturally responsive curation).

Result and discussion. 6. CC Components and Indicators

Motivational—intrinsic motivation, productive risk-taking, perseverance[6]. Cognitive—divergent/convergent thinking, problem reframing, analogy and concept mapping[1][6][11]. Action-oriented—CPS/PBL cycles, collaborative regulation, goal-setting[14][5][6]. Reflective—self-assessment, portfolios, iterative calibration, individualized PD plans[2][5]. TTCT criteria operationalize assessment anchors in rubrics[15].

7. Four-Week CPS/PBL Module

Week 1—Problem Reframing & Ideation: SCAMPER, metaphor bridges, rapid sketching[6][1][11]. Week 2—Selection & Prototyping: decision matrices, low-fidelity prototypes[14]. Week 3—Library Integration & Roles: resource scans, concept maps, role

rotation[9]. Week 4—Showcase & Reflection: presentations, peer assessment, reflective journals[2].

Table 1. 4×4 Creativity Competence Rubric (Indicators × Performance Levels)

Component / Level	Level 1	Level 2	Level 3	Level 4
Motivational	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.
Cognitive	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.
Action-oriented	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.
Reflective	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.	Observable descriptors; increasing sophistication, autonomy, and transfer.

The rubric aligns with TTCT-informed criteria and 4C developmental framing[11][15].

Table 2. Weekly Plan and Assessment Map (CPS/PBL Module)

Week	Core Activities	Artifacts	Assessment	CC Components
1	SCAMPER; metaphor bridges; brainstorming	Idea sheets; sketches	Formative checks; exits	Motivational, Cognitive
2	Decision matrices; prototyping	Low-fi prototypes	Peer feedback; rubric	Cognitive, Action
3	Library scan; concept maps; roles	Maps; annotated bibliographies	Observation notes; portfolios	Cognitive, Reflective, Action
4	Showcase; peer review; reflection	Presentations; journals	Summative rubric; self/peer	All

Table 3. PLC Calendar (Sample Quarter)

Month	Focus	Activities	Outputs
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Month 1	Co-planning tasks	CPS	Lesson study; micro-PD	Shared drafts
Month 2	Observation & feedback		Peer observation; protocols	Annotated notes
Month 3	Assessment culture		Rubric norming; moderation	Calibrated exemplars
Month 4	Well-being & sustainability		Stress audit; workload review	Action plan

8. Enabling Conditions and Safeguards

Inclusive DAP environments ensure access and progression[2]; relational trust enhances engagement[4]. PLCs stabilize innovation through routines[5], while the EU framework positions creativity within transversal competences[12]. Stress management protects sustained creativity and instructional quality[3].

9. Monitoring and Evidence of Learning

Artefact portfolios; rubric-aligned checks[15]; brief perception surveys; student voice interviews; PLC data reviews for timely adjustment.

10. Cross-Cultural and Developmental Design Notes

Metaphor and analogy banks from local/global texts support mini-c and little-c expression advancing toward Pro-C practices[1][11]; library workshops broker multimodal inquiry[9].

11. Extended Discussion

The results of this study confirm that creativity competence (CC) in teacher education is not a singular construct but a multidimensional integration of cognitive, motivational, and relational dynamics. The synthesis of Creative Problem Solving (CPS), Developmentally Appropriate Practice (DAP), and Professional Learning Communities (PLCs) presents a holistic framework for fostering creativity among pre-service teachers. Within this framework, DAP environments serve as psychological safety zones that nurture experimentation and divergent thinking, while PLCs provide professional scaffolding for collaborative innovation.

The implementation of library-based workshops emerged as a unique cultural and pedagogical intervention. These workshops bridge theory and practice by linking creative literacy, problem-solving, and reflective practice through a participatory design. Such initiatives are particularly relevant for teacher education institutions in Uzbekistan, where integrating creativity into pedagogical preparation remains an emerging priority. The results suggest that teacher–student relationships play a pivotal role in mediating creativity development. Mutual respect, dialogic interaction, and a sense of autonomy enhance intrinsic motivation and sustain creative engagement. Cross-referencing with previous research

(Kaufman & Beghetto, 2009; Hattie, 2009) underscores that creativity competence is deeply relational and context-dependent. The motivational dimension—especially the interplay between self-efficacy and perseverance—requires continuous nurturing through formative feedback and reflective dialogue. Moreover, the reflective component of CC becomes a cornerstone for professional growth, as teachers learn to calibrate their creative performance against well-defined rubrics and community standards.

The proposed 4×4 CC rubric demonstrates that observable creativity indicators can be operationalized in classroom contexts without compromising reliability or cultural specificity. It offers a replicable model that may inform national teacher education standards. Importantly, the inclusion of well-being and workload management in the PLC calendar reflects a sustainable understanding of creativity. Stress regulation, mindfulness, and collegial support must be institutionalized to maintain long-term creative productivity among educators.

12. Future Implications

Future teacher education programs should extend beyond isolated training modules and embed creativity competence across curricula. The integrative model proposed here suggests several key directions:

1. Curricular Integration: Embedding CPS and project-based learning sequences throughout pedagogical courses ensures continuity of creative skill development.

2. Assessment Reform: Expanding the use of rubrics grounded in Torrance Test of Creative Thinking (TTCT) criteria allows for formative assessment aligned with creative growth trajectories.

3. Relational Pedagogy: Teacher-student interaction models should emphasize empathy, dialogic learning, and co-construction of knowledge to strengthen the affective basis of creativity.

4. Digital and Library Synergies: School libraries and digital platforms can serve as creative incubators that support multimodal inquiry and transdisciplinary exploration.

5. Policy Alignment: National teacher standards should explicitly reference creativity competence as a core professional attribute, linking it with innovation-driven educational reforms.

These directions are particularly relevant for Uzbekistan's pedagogical universities, which are in a strategic position to model creativity-centered education. Establishing inter-university PLC networks, creative teaching laboratories, and reflective portfolios can significantly advance teacher readiness for 21st-century classrooms.

Conclusion. The integrative model—CPS/PBL + DAP + relationship-centered climate + PLCs + library workshops + stress safeguards—offers a coherent pathway to cultivate CC in prospective primary teachers. Future work should experimentally evaluate outcomes, localize rubrics to standards, and extend digital library integrations. This highlights that the development of creativity competence in prospective primary school teachers is both a pedagogical necessity and a strategic investment in educational quality. The integrative framework—CPS/PBL combined with DAP, teacher–student relationships, PLCs, and library workshops—demonstrates that creativity can be systematically cultivated through structured yet flexible learning environments.

The study’s findings reaffirm that creativity is not a trait confined to a few individuals but a competence that can be taught, nurtured, and assessed. When teachers internalize creative mindsets, they become catalysts for student innovation, curriculum enrichment, and institutional growth. The alignment between the 4C creativity model and the practical design components introduced in this paper bridges the gap between theory and classroom application.

In Uzbekistan’s evolving educational landscape, where national reforms emphasize innovation, inclusivity, and competency-based learning, the framework proposed here can serve as a blueprint for redesigning teacher education. The role of universities extends beyond knowledge transmission; they must become creative ecosystems where reflective inquiry, interdisciplinary collaboration, and evidence-based practice converge.

Ultimately, creativity competence should be viewed as a dynamic continuum that grows with professional experience. By embedding reflective self-assessment, supportive relationships, and collaborative learning communities into teacher education, we can ensure that future educators not only teach creatively but also live creatively—embracing curiosity, empathy, and innovation as lifelong habits of mind.

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