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DESIGNING LANGUAGE TEACHING MATERIALS AS PROFESSIONAL COMPETENCE: THE CASE OF TEACHER-MADE WORKSHEETS

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Abstract. This paper examines teacher-made instructional materials as a core dimension of professional competence in foreign language teaching, with particular emphasis on worksheets as a foundational and widely used format. Departing from the view of materials creation as a supplementary or compensatory practice, the paper conceptualises materials design as an integral aspect of pedagogical agency, instructional decision-making, and reflective teaching. Drawing on established frameworks in materials development and teacher education, it situates teacher-generated materials within broader discussions of contextualisation, differentiation, flexibility, and learner responsiveness, while also engaging with their role as mediators of situated educational meaning.

The analysis foregrounds the realities of classroom practice, arguing that commercially produced materials frequently fail to accommodate local, cultural, and learner-specific needs, thereby prompting teachers to adapt, supplement, or create their own resources. Special attention is paid to the professional challenges faced by novice teachers and student teachers, whose limited experience and underdeveloped design repertoires often render materials creation cognitively demanding and time-intensive. At the same time, the paper highlights the iterative and developmental character of teacher-made materials, which are refined through repeated cycles of classroom use, feedback, and revision.

The paper further addresses constraints related to time, workload, design literacy, and curricular alignment, while also considering the growing role of digital and AI-assisted tools in supporting materials development. In conclusion, it argues for the systematic integration of materials design into teacher education programmes, positioning this competence not only as a practical necessity, but as a professionally and epistemically significant dimension of sustainable, context-sensitive, and pedagogically grounded language teaching.

Key words: teacher-made materials, worksheet design, foreign language teaching, teacher agency, materials development, teacher education.

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1. Introduction

The practice of designing instructional materials has become an integral and largely taken-for-granted dimension of contemporary language teaching. Far from constituting a marginal or compensatory activity, it represents a routine pedagogical response to the persistent mismatch between commercially produced resources and the situated realities of

classroom practice. In foreign language teaching (FLT) in particular, where instruction must remain simultaneously linguistically accessible, cognitively manageable, and culturally meaningful; teachers regularly adapt, supplement, or create materials that reflect the proficiency levels, experiential backgrounds, and educational needs of their learners. These practices are now so deeply embedded in everyday teaching that they are rarely questioned, despite the professional demands they entail.

At the core of this development lies the need for contextualisation and pedagogical responsiveness. Generic coursebook materials, designed for broad and often global audiences, frequently require modification in order to support differentiated instruction, accommodate learner diversity, and embed language learning in contexts that are locally meaningful. Teacher-made materials enable such adaptation by providing flexible, modifiable resources that can be aligned with specific instructional trajectories. In this respect, materials design functions not merely as a technical adjustment, but as a form of pedagogical decision-making through which teachers connect linguistic form with situated meaning and learner experience.

Importantly, the creation of instructional materials is not driven solely by pragmatic necessity. For many educators, it is also shaped by intrinsic professional motivations, including creative engagement, a sense of ownership, and the desire to refine one's pedagogical practice. Material design thus reflects a broader professional disposition characterised by reflection, intentionality, and instructional agency. Even within institutional or curricular frameworks, teachers routinely exercise autonomy through the selection, adaptation, and design of materials, shaping both the content and the conditions of learning in ways that pre-packaged resources rarely allow.

Despite its ubiquity and professional significance, the ability to design effective instructional materials is rarely treated as a distinct competence within teacher education. Material creation is often assumed to develop intuitively through classroom experience, rather than through systematic preparation. This assumption obscures the complexity of the practice and places a disproportionate burden on novice teachers, who are expected to produce pedagogically sound materials without explicit training in design principles, scaffolding strategies, or evaluative criteria. As this paper argues, teacher-made materials, particularly worksheets as the most widespread and operational form of material design, constitute a central component of professional language teaching expertise. Recognising materials development as a core instructional skill, and integrating it explicitly into teacher education programmes, is therefore essential for aligning teacher preparation with the realities of contemporary classroom practice.

This article is conceived as a narrative analytical review. It synthesises theoretical literature on instructional materials development, teacher-made resources, and worksheet design in foreign language teaching, with the aim of offering a conceptually grounded interpretation rather than a systematic or empirical meta-analysis.

2. Teaching materials

In contemporary FLT education, instructional materials are no longer understood as static repositories of linguistic content, but as pedagogically situated tools that mediate language learning through deliberate instructional design. Broadly defined, materials encompass "anything which can be used to facilitate the learning of a target language" (Tomlinson and Masuhara 2018, p.2), including coursebooks, worksheets, audio-visual media, digital applications, literary texts, visual artefacts, classroom tasks, and realia. This expansive definition reflects a fundamental shift in perspective: materials are not neutral carriers of information, but central components of instructional practice that structure classroom interaction, shape learning trajectories, and embody pedagogical intentions. As Kitao (1998, p.1) observes, materials occupy "the centre of instruction", exerting a formative influence on both teaching processes and learner experience.

Within foreign language education, instructional materials fulfil a dual function: they provide structured linguistic input while simultaneously mediating cultural meaning,

communicative norms, and learner engagement. Their design therefore involves more than content selection, encompassing decisions about sequencing, scaffolding, task orientation, and learner positioning. This understanding underpins the field of materials development, which seeks to theorise the relationship between pedagogical aims and material form. Tomlinson (2012, pp.143–144) conceptualises this process through six interrelated stages: evaluation, adaptation, design, production, exploitation, and research; emphasising the iterative and reflective nature of materials work. Green (2023) further distils this perspective into a set of design principles, highlighting aesthetic coherence, cognitive accessibility, cultural authenticity, affective engagement, and revisability as central criteria.

Historically, materials development evolved from concerns with textbook evaluation and classroom adaptation (Cunningsworth, 1984; Madsen and Bowen 1978; Byrd 1995) into a theoretically informed domain closely aligned with classroom practice. Subsequent scholarship has reinforced the view of materials development as applied pedagogical expertise rather than abstract design. This perspective is particularly relevant in relation to commercial coursebooks, which, despite offering curricular structure, often lack contextual specificity or cultural resonance (Edge and Wharton, 1998; Karpova, 1999). As a result, teachers routinely adapt, supplement, or restructure published materials and create supporting tasks, especially when working with authentic materials, to ensure pedagogical coherence and learner relevance (Maley and Tomlinson, 2017).

From a design perspective, effective materials integrate multimodal input, learner-centred tasks, and differentiated pathways through content. Tomlinson (1998) emphasises the importance of cognitive engagement and affective involvement, while Richards and Rodgers (2022) highlight the need to address diverse learning preferences through visual, auditory, and kinaesthetic activities. Importantly, such principles presuppose a capacity to plan, structure, and evaluate tasks in relation to learner readiness and instructional aims. Materials development is thus inherently iterative: models such as that proposed by Jolly and Bolitho (2011), which include needs analysis, contextualisation, pedagogical realisation, production, and evaluation, foreground continuous revision informed by classroom feedback and reflective practice.

In addition to pedagogical coherence, visual and linguistic clarity constitute essential dimensions of material quality. As Harmer (2003) notes, layout, typography, and spacing, directly influence comprehensibility and cognitive load. In FLT contexts, where materials frequently function as linguistic models, accuracy and visual organisation acquire particular significance. Design choices related to sequencing, exemplification, and graphic hierarchy therefore contribute not only to usability, but also to the overall instructional effectiveness of the material.

In summary, these perspectives underscore that the instructional materials are dynamic, theory-laden artefacts situated at the intersection of pedagogy, design, and classroom practice. They demand informed decision-making, iterative refinement, and sensitivity to learner context. While this section has outlined the conceptual foundations of materials development, it also reveals an important implication: the principles and processes described here do not operate autonomously. Rather, they are enacted through the professional actions of teachers, who must translate abstract design considerations into concrete classroom resources. It is this translation - most visibly realised in the creation and adaptation of teacher-made materials - that forms the focus of the following section.

3. Teacher-made materials

Teacher-made materials constitute a central component of contemporary FLT instruction, reflecting pedagogical responsiveness, contextual sensitivity, and the professional agency of teachers as instructional designers. Unlike commercially produced resources intended for broad and often global application, teacher-generated materials arise from direct engagement with specific learner groups and their linguistic, cognitive, and sociocultural profiles. They encompass a wide range of formats, including worksheets, handouts, flashcards, role-play scripts, visual supports, and interactive tools; but are unified

not by form, rather by their close alignment with classroom realities and instructional objectives. Their pedagogical value lies primarily in their adaptability, accessibility, and capacity to scaffold learning in ways that respond to concrete teaching contexts.

The effectiveness of teacher-made materials is closely linked to systematic needs analysis and reflective practice. Rather than addressing only immediate instructional demands, such materials are typically designed to anticipate learner development and to support progression over time. As Pramaningrum (2010, as cited in Ghafar et al., 2023) suggests, teacher-created resources function across different phases of the instructional cycle: in pre-task stages, they activate prior knowledge and introduce key linguistic forms; during task execution, they guide interaction, problem-solving, and language use; and in post-task phases, they facilitate consolidation, reflection, and extension. This tri-phasic organisation, grounded largely in task-based learning principles, enables materials to operate not merely as vehicles of input, but as structured supports for learner engagement and emerging autonomy.

Designing teacher-made materials involves a series of pedagogically consequential decisions, including task selection, sequencing, differentiation, and the anticipation of learner responses. As Fitria (2022) notes, internal coherence across tasks and alignment with instructional aims are essential for ensuring pedagogical effectiveness. Even in seemingly simple formats such as flashcards or worksheets, design choices related to layout, typographic clarity, and visual organisation must correspond to the intended learning outcome, whether lexical, grammatical, or communicative. Processes of expert validation - through peer consultation, pilot implementation, or feedback from learners - further contribute to material quality by enabling iterative refinement and reducing the subjectivity inherent in individual authorship.

A defining feature of teacher-made materials is their capacity for localisation and personalisation. By embedding instructional content in familiar social, cultural, and linguistic contexts, teachers enhance relevance and foster affective engagement. Such materials perform a dual scaffolding function: they support learners' gradual development of complex competencies, while simultaneously assisting teachers in structuring instructional sequences that reflect the specific trajectory of a given class. References to shared experiences, local realities, or culturally resonant narratives not only facilitate comprehension, but also promote a sense of ownership and inclusion. In this respect, material creation becomes a dialogic and meaning-oriented practice, aligning with Bruner's (1985) conception of narrative as a fundamental mode of educational meaning-making. Beyond pedagogical adaptation, teacher-made materials also enable educators to negotiate cultural, ideological, and value-based tensions embedded in commercially produced resources, allowing instruction to align more closely with local educational contexts and learner identities.

From a theoretical perspective, the use of teacher-made materials aligns with constructivist approaches to learning that emphasise learner agency, social interaction, and contextualised knowledge construction. Materials that incorporate imaginative scenarios, personal expression, or real-world problem-solving, invite learners to engage actively with language as a resource for meaning rather than as an abstract system. At the curricular level, such resources mediate between formal standards and local implementation, allowing teachers to maintain curricular fidelity while exercising pedagogical flexibility. Their iterative nature, characterised by continuous adaptation, revision, and contextual calibration; positions teacher-made materials as dynamic components of the instructional ecology rather than as fixed pedagogical artefacts.

4. Teacher-made Worksheets

The development of teacher-made worksheets constitutes a professional practice in its own right. It requires a nuanced understanding of learner needs, task design, linguistic scaffolding, and curricular alignment. Whether driven by syllabus requirements or broader conceptual aims, worksheet design exemplifies a shift from teaching-as-delivery to teaching-as-design, in which instructional decisions are deliberately planned rather than merely

implemented. The iterative nature of this process, where tasks are trialled, revised, and refined through classroom use, enhances pedagogical sensitivity and supports the development of reflective teaching practices. In instructional contexts, where high-quality, culturally appropriate, or level-appropriate materials are limited, teacher-created worksheets enable localisation, personalisation, and contextual adaptation. Such supplementation is not marginal; rather, it often marks the point at which teachers exercise professional judgment to shape not only what is taught, but how and why it is taught.

From a pragmatic perspective, designing bespoke materials may also prove more efficient than adapting ill-fitting published resources. This is particularly evident in contexts characterised by paywalled materials, rigid syllabi, or limited access to appropriate supplementary content. In such situations, the time required to locate, evaluate, and adapt existing materials may exceed that needed to design a targeted worksheet from scratch, rendering material creation not only pedagogically motivated but also pragmatically rational. As a result, producing a concise, purpose-built worksheet can reduce preparation time while increasing instructional precision and relevance, while simultaneously affording teachers greater control over task sequencing and cognitive demand.

Among the various forms teacher-made materials may take, the worksheet occupies a particularly prominent position. As an accessible and highly adaptable format, it accommodates a wide range of linguistic objectives, from controlled practice and mechanical drills to guided discovery and communicative tasks. Its modular structure makes it suitable for both classroom use and independent work, while its inherent flexibility allows teachers to calibrate content closely to learner profiles, instructional aims, and curricular demands. Far from functioning as a simplistic add-on, the worksheet operates as a micro-level articulation of pedagogical intent, translating theoretical priorities into concrete, learner-facing activities.

In everyday classroom practice, worksheets represent one of the most common and versatile forms of supplementary material. Whether downloaded, adapted, or authored from scratch, they serve as structured tools for differentiated instruction, accommodating variation in proficiency, learning preferences, and specific pedagogical goals. Although worksheets are frequently associated with discrete grammar practice, their scope is considerably broader, encompassing handwriting, spelling, punctuation, pronunciation, vocabulary development, and textual organisation. When carefully designed, worksheets can facilitate not only practice but also awareness-raising, incorporating elements of metalinguistic reflection and structured discovery. They are used both during lessons and as individualised homework tasks, particularly to address learner-specific challenges such as lexical gaps or productive constraints. Moreover, they enable teachers to systematise linguistic knowledge, such as word formation patterns, collocational networks, or phonological regularities; often drawing on corpus-informed or lexical frameworks.

Effective worksheet construction depends not only on pedagogical content, but also on design and visual organisation. Elements such as visual hierarchy, white space, typographic coherence, and the strategic use of icons or colour play a demonstrable role in usability, comprehension, and learner engagement. As Klečková and Švejda (2019) demonstrate in their work on FLT materials design, these features are integral to task success and learner motivation rather than merely decorative. Visual design thus constitutes an essential component of worksheet development, directly contributing to cognitive scaffolding and instructional clarity.

More broadly, effective worksheet design requires sustained attention to form, function, and learner cognition. This includes the sequencing of activities, the clarity and economy of instructions, the provision of guidance or exemplification, and the scaffolded progression from controlled form-focused tasks toward more communicative language use. Clear distinctions between exercises targeting grammatical form, lexical knowledge, or functional language use are essential for maintaining task coherence. While teachers may draw inspiration from published models, the creation or adaptation of worksheets ultimately rests on informed professional judgments concerning learner readiness, syllabus alignment, and intended learning outcomes. In this sense, worksheet design can be understood as a

form of pedagogical micro-design, in which broader instructional principles are realised through concrete, classroom-oriented decisions.

5. Teachers as instructional designers

As previously established, teachers increasingly operate as instructional designers - a role that finds its most explicit expression in the creation of materials reflecting pedagogical beliefs and contextual insight. From this perspective, teacher-made materials are not merely a pedagogical technique, but a professional act of agency and reflective practice. Although such autonomy may exist in tension with top-down curricular frameworks, it reflects the everyday reality of classroom instruction, where teachers frequently adapt or bypass prescribed resources in favour of materials better aligned with learners' needs. Through iterative refinement informed by classroom feedback, teachers engage in ongoing professional development, deepening their awareness of language as both system and resource and enhancing their responsiveness to learner variability. In this sense, worksheet design functions not as a compensatory response to curricular gaps, but as a core dimension of teacher expertise.

Empirical research supports the normality of this practice. Studies by Tsui (2003), Shawer (2010), Garton and Graves (2014), and McGrath (2013) consistently demonstrate that teachers at all career stages engage in material modification—through supplementation, adaptation, or localisation. In this sense, virtually all teachers function as materials developers to some degree. This is especially evident in literature-based language instruction, where commercially available resources often fail to align with learners' linguistic proficiency or cultural experience. Teacher-designed worksheets, scaffolded across pre-, while-, and post-task phases, enhance comprehension while fostering critical engagement and interpretive depth. Such materials therefore represent situated acts of instructional design and pedagogical reasoning, closely bound to teachers' professional identities.

At the same time, teacher-made materials are embedded within a broader culture of professional exchange. Across institutional networks and digital repositories, educators routinely share worksheets, templates, and lesson plans, reducing individual preparation demands while fostering collegiality and pedagogical solidarity. Access to shared and curated resources, including editable templates and subscription-based repositories, has become a routine feature of contemporary practice, complementing individual design work by providing inspiration, validation, and an evolving archive of classroom-tested materials.

Beyond its ubiquity and collaborative circulation, materials design is also sustained by intrinsic professional motivation. Many teachers experience design work as intellectually and aesthetically meaningful, deriving a sense of ownership and professional identity from crafting resources aligned with their teaching philosophy. At the same time, this creative agency remains ambivalent: while materials development can support professional growth and satisfaction, it may also contribute to fatigue and role overload when design ambitions collide with institutional constraints and limited time.

This tension is particularly salient for novice teachers[1]. The recursive cycle of designing, piloting, revising, and refining materials - though pedagogically enriching -

[1] Throughout the paper, a principal analytical distinction is maintained between novice teachers and student teachers. Novice teachers are understood as educators who are already fully engaged in classroom practice and bear primary responsibility for instruction, yet remain relatively inexperienced and therefore require sustained support as they adapt to the professional demands of teaching. Student teachers, by contrast, are typically still enrolled in teacher education programmes and are preparing to enter the profession; their teaching experience, if present at all, is usually limited in scope, duration, and responsibility. Despite these structural differences, the two groups are at times discussed jointly in the present study. This is a deliberate analytical choice, grounded in the observation that novice and student teachers often encounter similar challenges with regard to the design and creation of teacher-made materials. In both cases, limited experience, underdeveloped design repertoires, and uncertainty about pedagogical decision-making may render materials development cognitively demanding and professionally overwhelming. Moreover, both groups are particularly vulnerable to work overload and confusion when expectations for material creation are not matched by adequate preparation or guidance.

requires substantial cognitive and temporal investment. For teachers still consolidating classroom management, assessment practices, and lesson planning routines, the expectation to produce original materials may be experienced as overwhelming rather than empowering. Even experienced educators may face similar pressures when innovation competes with the need for sustainable teaching practices. These dynamics underscore the importance of recognising materials creation as a legitimate component of teacher workload, deserving of pedagogical space and structural support.

The decision to design supplementary materials de novo - particularly worksheets - often arises from the recognition that even comprehensive coursebooks rarely address the specific and situated needs of particular learner groups. While published supplements may offer partial solutions, they frequently lack the contextual specificity and pedagogical flexibility required for effective instruction. In cases where the effort needed to adapt existing materials outweighs their pedagogical value, original design becomes a more efficient and educationally sound alternative. By aligning content precisely with learner profiles, cognitive readiness, affective dispositions, and linguistic or cultural backgrounds, teacher-created worksheets enhance relevance, engagement, and meaningfulness - conditions essential for sustained learning.

In summary, the design of teacher-made materials constitutes a vital dimension of contemporary language pedagogy. Far from being peripheral or incidental, these practices reflect teachers' ongoing negotiation with instructional realities and demand considerable pedagogical judgment. As curriculum-makers rather than mere transmitters of content, teachers intervene actively in shaping learning experiences through localisation, personalisation, and task design attuned to socio-cognitive learner needs. Teacher-made materials thus stand as artefacts of situated pedagogical reasoning - anchored in context, responsive to learners, and embedded within the broader ecology of classroom interaction.

6. Challenges

Yet the process of creating teacher-made materials is shaped by a set of structural and professional constraints. Among the most pervasive is the scarcity of time, which limits teachers' capacity to engage in extended research, iterative development, or systematic evaluation. Materials, particularly worksheets, are often produced under conditions of urgency and are nevertheless expected to fulfil multiple pedagogical criteria, including relevance, clarity, progression, and alignment with curricular aims. This complexity is further compounded by the fact that teachers typically receive little formal preparation in visual literacy or educational design. As a result, material quality may be affected by issues such as typographic inconsistency, excessive layout density, or insufficient scaffolding, not due to a lack of pedagogical competence, but as a consequence of systemic under-preparation.

Although the digital age has made a wide range of design tools readily accessible, from word-processing templates and graphic platforms such as Canva to collaborative environments like Padlet; their availability alone does not guarantee pedagogically sound use. Digital literacy remains uneven, and even technologically confident educators may struggle to distinguish between superficial visual appeal and pedagogically grounded design. This challenge is intensified by the abundance of freely available worksheets and templates online, many of which lack quality control, contextual relevance, or a clear instructional rationale. As a result, teachers are increasingly required to act as critical evaluators, curating, adapting, and often rewriting materials to meet professional and classroom-specific standards.

Within this context, AI-powered tools have emerged as a pragmatic response to the time-intensive demands of materials development. By generating worksheets, gap-fill activities, or scaffolded exercises from minimal input, such tools can substantially reduce the cognitive and temporal load associated with instructional design and support rapid task iteration. While most educators currently develop AI-related skills through informal experimentation, the pedagogical potential of these technologies warrants more systematic attention in teacher education. Developing foundational AI literacy, including effective

prompting, critical curation of output, and alignment with learning outcomes, thus constitutes an emerging dimension of instructional competence. Crucially, AI functions not as a replacement for teacher expertise, but as an assistive resource that enhances efficiency while preserving pedagogical intentionality.

A further challenge concerns the frequent misalignment between teacher-created materials and externally imposed curricular or assessment frameworks. Even carefully designed worksheets may have limited classroom utility if they do not correspond to textbook units, examination formats, or administrative expectations. In many FLT contexts, curricular compliance is prioritised over pedagogical flexibility, requiring teachers to negotiate innovation within institutional constraints.

Despite these limitations, the creation of teacher-made materials remains one of the most intellectually generative dimensions of professional practice. Designing original tasks compels teachers to reflect on learner progression, task sequencing, linguistic focus, and cognitive demand, fostering what may be described as methodological authorship. In worksheet design, this authorship is realised through the deliberate balancing of input and output, the integration of communicative purpose, and the progression from form-focused activities to meaningful language use. Through iterative cycles of design, implementation, and revision, teachers refine their pedagogical vision and enhance instructional precision.

In light of these considerations, teacher-made materials should not be understood as a stopgap response to the limitations of commercial textbooks, but as a foundational practice of reflective and responsive pedagogy. Each worksheet embodies a series of instructional decisions: what to prioritise, what to omit, how to sequence, and how to engage learners. Teachers thus operate not only as mediators of content, but as instructional designers whose work carries both immediate pedagogical consequences and long-term implications for professional identity. If such levels of design competence and instructional judgment are increasingly expected in language education, the necessity of integrating these skills systematically into teacher preparation becomes evident. This imperative, forms the focus of the following section.

7. Teacher-made materials and Teacher Training

Given the complex nature of materials design and the central role that teacher-generated content plays in shaping classroom practice, it is increasingly evident that this domain warrants a formal and sustained presence within teacher education programmes. Far from constituting a peripheral activity or a minor extension of lesson planning, instructional materials development requires a complex set of pedagogical, linguistic, and design-related competences that must be cultivated systematically. The ability to tailor instruction through personally designed materials is not merely a practical asset; it represents a marker of pedagogical maturity and reflective professionalism. Accordingly, the integration of materials development into teacher training (particularly within FLT-oriented programmes) should be understood not as an ancillary skill, but as a foundational component of instructional expertise.

The need for such preparation is especially pronounced in the early stages of professional practice. Unlike novice teachers, who develop materials under the pressure of immediate classroom demands, student teachers encounter materials design without the benefit of experiential reference points, which often renders the task cognitively more demanding and pedagogically opaque.

Newly qualified teachers, who typically lack an established repertoire of classroom-tested materials or the experience necessary to adapt published resources efficiently, often devote substantial time to producing handouts, worksheets, and supplementary tasks. During this initial period, the learning curve can be steep: novice educators may struggle to align materials with learning outcomes, manage cognitive load, or ensure linguistic accuracy. In the absence of structured guidance, material creation frequently proceeds through trial and error, which may lead to instructional inefficiencies and pedagogical fatigue. More experienced teachers, by contrast, tend to rely on accumulated collections of materials

refined through repeated cycles of classroom use, feedback, and revision. Their greater fluency in recognising pedagogical affordances, calibrating task difficulty, and scaffolding learner input is not innate, but the result of sustained practice, reflection, and theoretical grounding-processes that can be meaningfully initiated during initial teacher education.

At the same time, the expansion of digital platforms and teacher-driven content communities has transformed materials development into an increasingly collaborative endeavour. Through institutional repositories, cloud-based platforms, and educational social media, teachers now share resources across institutional and national boundaries. This participatory culture facilitates innovation, accelerates the dissemination of effective practices, and contributes to a shared professional knowledge base. However, it also foregrounds the need for quality assurance, design literacy, and principled frameworks to guide collaborative authorship. Without such grounding, the abundance of shared materials risks reinforcing superficial design practices rather than pedagogically sound innovation.

Embedding materials design within teacher education thus serves a dual function. On the one hand, it equips student teachers with concrete tools for classroom practice, preparing them to address the inevitable gaps, mismatches, and contextual limitations of commercial textbooks. On the other hand, it initiates a process of pedagogical socialisation in which prospective educators learn to conceptualise materials not as static products, but as evolving pedagogical interventions subject to evaluation, adaptation, and revision. Through targeted instruction in design principles, adaptation strategies, and evaluative frameworks, future teachers can develop the confidence to act as agents of curricular mediation rather than passive implementers of externally prescribed content. When materials development is approached as an intellectual and creative practice, closely linked to task design, learner autonomy, and linguistic sensitivity; it further strengthens teachers' epistemic agency within the professional community.

Although curricular time within teacher education programmes is often limited, marginalising or omitting this component is ultimately counterproductive. As teacher-created materials continue to play a decisive role across diverse instructional contexts, from under-resourced classrooms to literature-based foreign language instruction, the demand for rigorous preparation in materials design becomes increasingly urgent. Situating such training within a broader, international perspective ensures that teachers are prepared not only to operate within local institutional frameworks, but also to adapt their practices to the evolving realities of multilingual and transnational educational environments. In this sense, the systematic inclusion of materials development in teacher education constitutes not merely a pragmatic recommendation, but a pedagogical imperative - one that reinforces both teacher autonomy and the instructional integrity of language education.

8. Conclusion

This paper has argued that the creation of teacher-made materials constitutes a central, yet insufficiently formalised, dimension of contemporary language teaching. Far from being a marginal or auxiliary activity, materials development (particularly in the form of worksheet design) emerges as a routine and professionally demanding practice through which teachers exercise pedagogical judgment, adapt instruction to situated learner needs, and translate theoretical principles into concrete classroom action. The analysis has shown that materials creation involves iterative design processes, linguistic and cognitive scaffolding, visual organisation, and ongoing evaluation, all of which presuppose a set of competences that extend well beyond intuitive teaching practice.

Despite the ubiquity and instructional significance of these activities, materials design is rarely conceptualised as a distinct professional skill within teacher education. Instead, novice teachers are frequently expected to acquire this competence implicitly, through trial and error in classroom contexts. This expectation obscures the complexity of materials development and contributes to professional strain in the early stages of teaching. Recognising materials creation as a core instructional competence therefore represents a

necessary step toward aligning teacher preparation with the realities of everyday classroom practice.

From this perspective, the systematic inclusion of materials development in teacher education programmes is not a supplementary enhancement, but a pedagogical necessity. Providing student teachers with structured opportunities to design, implement, evaluate, and revise instructional materials under realistic conditions, enables them to develop design literacy, reflective awareness, and confidence in their instructional decision-making. Such preparation may take the form of project-based coursework, guided peer feedback, and mentored reflection on the relationship between material design, learner profiles, and curricular objectives. Importantly, the value of student-generated materials lies not in polished end products, but in the development of pedagogical insight through iterative design processes.

The increasing availability of digital tools and AI-assisted design environments further reinforces the need for explicit training in materials development. While such technologies offer significant potential to reduce the time and cognitive demands associated with material creation, their pedagogical effectiveness depends on teachers' ability to critically evaluate output, align tasks with learning goals, and maintain instructional coherence. Integrating digital and AI literacy into materials design training can therefore enhance efficiency without diminishing the teacher's role as an instructional designer.

In synthesising theoretical perspectives, empirical insights, and classroom-oriented analysis, this paper contributes to the growing recognition of materials development as both a practical necessity and a formative pedagogical practice. By conceptualising worksheet design as a core professional competence and situating it explicitly within teacher education, the study highlights an underexplored avenue for strengthening teacher agency, instructional quality, and the coherence of language teacher preparation in increasingly complex educational contexts.

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