



Needs Analysis in EFL: A Literature Based Study on Necessities, Lacks, and Wants for Materials Development

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Abstract

This literature-based study aims to synthesize theoretical and methodological perspectives on needs analysis (NA) in English as a Foreign Language (EFL), emphasizing the framework of necessities, wants, and lacks (NWL) and its implications for materials development. A total of twenty-five peer-reviewed journal articles (2010-2024), three seminal books, and two policy documents were analyzed through thematic and comparative methods. Sources were selected based on their relevance to EFL contexts, academic credibility, and contribution to materials design. The review reveals three key findings. First, needs analysis serves as a cornerstone in curriculum and materials development, ensuring instructional relevance and learner engagement. Second, the NWL framework remains conceptually robust, though its application requires methodological diversification through triangulation of questionnaires, interviews, and observations. Third, digital tools and technology-enhanced approaches have revitalized NA practices, promoting dynamic and data-driven insights into learners' needs. Conceptually, this study bridges classical and contemporary perspectives on NA. Practically, it offers guidance for teachers, curriculum designers, and material developers to integrate systematic and evidence-based needs analysis into EFL instructional design.

Abstrak

Penelitian berbasis kepastakaan ini bertujuan untuk mensintesis perspektif teoretis dan metodologis mengenai analisis kebutuhan (needs analysis/NA) dalam pembelajaran Bahasa Inggris sebagai Bahasa Asing (English as a Foreign Language/EFL), dengan penekanan pada kerangka *necessities, wants, dan lacks* (NWL) serta implikasinya terhadap pengembangan bahan ajar. Sebanyak dua puluh lima artikel jurnal terindeks (2010–2024), tiga buku seminal, dan dua dokumen kebijakan dianalisis menggunakan metode tematik dan komparatif. Sumber-sumber dipilih berdasarkan relevansi dengan konteks EFL, kredibilitas akademik, dan kontribusinya terhadap desain materi pembelajaran. Hasil kajian menunjukkan tiga temuan utama. Pertama, analisis kebutuhan berperan penting sebagai dasar dalam perancangan kurikulum dan bahan ajar yang relevan dan berpusat pada pembelajar. Kedua, kerangka NWL tetap kuat secara konseptual, namun penerapannya memerlukan diversifikasi metodologis melalui triangulasi kuesioner, wawancara, dan observasi. Ketiga, penggunaan alat digital dan pendekatan berbasis teknologi memperkaya praktik analisis kebutuhan dengan memberikan wawasan yang lebih dinamis dan berbasis data. Secara konseptual, penelitian ini menjembatani perspektif klasik dan kontemporer tentang analisis kebutuhan. Secara praktis, studi ini memberikan panduan bagi guru, perancang kurikulum, dan pengembang materi untuk mengintegrasikan analisis kebutuhan yang sistematis dan berbasis bukti dalam desain pembelajaran EFL.

Kata Kunci: Analisis Kebutuhan, *Necessities–Wants–Lacks* Framework, EFL, Pengembangan Bahan Ajar, Desain Kurikulum.

1. INTRODUCTION

Understanding learners' needs has long been recognized as a cornerstone of curriculum design and materials development in English language education. In English as a Foreign Language (EFL) contexts, needs analysis (NA) serves as a systematic process for identifying what learners must achieve (necessities), what they currently lack (lacks), and what they expect or prefer (wants). This process enables teachers, curriculum designers, and material developers to ensure that instructional content is relevant, goal-oriented, and aligned with learners' real-world communicative demands [1], [2].

The classical framework of necessities-wants-lacks (NWL) remains one of the most influential models in NA. Necessities refer to the skills or competencies required to perform target tasks; lacks describe the gap between current and desired proficiency; and wants reflect learners' personal preferences and motivations [2]. Balancing these three dimensions allows EFL practitioners to design materials that are both pedagogically sound and learner-centered.

Recent studies highlight an increasing need for methodological diversification in NA. While traditional approaches rely heavily on questionnaires and interviews, more recent frameworks incorporate classroom observation, corpus-based analysis, and digital tools to enhance the validity and scope of learner data [3]-[5]. Triangulation among these instruments strengthens the reliability of findings and provides a more comprehensive picture of learner needs in diverse learning environments.

Despite extensive literature on NA, few studies have systematically synthesized the NWL framework together with triangulated methodologies-especially in connection to EFL materials development. Most research either focuses on defining learner needs or evaluating specific courses, without integrating theoretical models and methodological advancements into a unified conceptual discussion. This gap justifies the present study, which seeks to provide a holistic synthesis linking the NWL framework with contemporary approaches, including technology-enhanced needs analysis.

Based on this rationale, the study addresses the following research questions:

1. How can the framework of necessities, wants, and lacks be systematically applied to the development of EFL materials?
2. What are the relative strengths and limitations of questionnaires, interviews, and observations as tools for needs analysis in EFL contexts?

Accordingly, this paper reviews both theoretical and empirical perspectives on needs analysis, focusing on the NWL framework and methodological innovations. It further discusses implications for curriculum design and materials development, offering an integrated conceptual lens for EFL educators and researchers.

2. LITERATURE RIVIEW

The concept of needs analysis (NA) has become a cornerstone in English language teaching (ELT) and materials development, providing systematic insights into what learners must learn, what they currently lack, and what they expect to achieve. To ensure a critical and comprehensive discussion, this review is organized thematically into five main areas: (1) theoretical foundations of NA, (2) the framework of necessities, wants, and lacks (NWL), (3) methodological approaches, (4) digital and technology-enhanced innovations, and (5) the relationship between NA and materials development.

2.1 Theoretical Foundations of Needs Analysis

Needs analysis in EFL contexts originated from English for Specific Purposes (ESP) research in the 1970s and has evolved into a fundamental principle for curriculum design [1]. It serves as a diagnostic tool to align learners' goals with instructional objectives. Tomlinson [2] emphasizes that materials development should be informed by systematic NA to ensure both linguistic relevance and learner engagement. Similarly, Basturkmen [3] asserts that NA is not limited to identifying language needs but also includes cultural, affective, and motivational factors that influence learning outcomes. This theoretical foundation positions NA as an integrative process that connects language pedagogy, learner psychology, and sociocultural realities.

2.2 The Necessities-Wants-Lacks (NWL) Framework

The NWL framework proposed by Hutchinson and Waters (1987) and popularized by Tomlinson [2] remains central to NA practice. It distinguishes between *necessities* (objective requirements), *lacks* (deficiencies between current and target performance), and *wants* (learners' personal goals or interests). Recent studies reaffirm the enduring relevance of this framework but suggest the need for contextual adaptation. For instance, Gürler [7] examined teacher trainees in Turkey and found that learners' "wants" were increasingly shaped by digital and global demands rather than purely linguistic goals. Similarly, Rahman [8] highlights that balancing necessities and wants requires sensitivity to learners' contexts, especially in multilingual classrooms. Thus, the NWL framework continues to provide conceptual clarity but must be viewed dynamically in light of evolving educational realities.

2.3 Methodological Approaches in Needs Analysis

Methodologically, NA employs multiple tools-questionnaires, interviews, and classroom observations-to triangulate findings and enhance reliability. Richards [1] notes that triangulation mitigates biases inherent in single-method studies. Traditional approaches prioritize quantitative questionnaires, but newer trends integrate qualitative interviews to capture deeper learner insights [3]. Lofland [9] argues that NA should be viewed as an ongoing cycle rather than a one-time activity, advocating for continuous feedback and reflection from both learners and instructors. Comparative analyses across studies reveal that mixed-method and triangulated approaches produce richer, more valid representations of learner needs.

2.4 Digital and Technology-Enhanced Needs Analysis

With the rise of digital learning environments, technology has begun to reshape NA practices. Lin, Zhang, and Zheng [4] developed a context-aware learning system that dynamically identifies learners' evolving needs through digital tracking. Similarly, Chiu, Lin, and Wang [5] proposed learner-centered digital NA that integrates analytics tools to map learners' progress and preferences. Recent innovations in artificial intelligence (AI) further expand possibilities for adaptive and personalized needs analysis [10]. These studies indicate a paradigm shift from static surveys toward data-driven and interactive systems capable of continuously diagnosing learner needs in real time. Such innovations align with global movements toward digital pedagogy and evidence-based materials design.

2.5 Linking Needs Analysis to Materials Development

A growing body of literature emphasizes that the outcomes of NA must directly inform materials development. Tomlinson [2] underscores that materials should reflect learners' necessities and wants to maintain authenticity and motivation. Rahman [8] adds that when NA results are ignored, materials risk being misaligned with learners' goals. Recent research demonstrates how needs-based materials improve engagement, autonomy, and performance [3], [7]. Moreover, integrating digital NA results into materials design enables developers to produce adaptive, learner-centered resources [5]. Hence, effective materials development is not only a creative process but also an analytical one-grounded in systematic, data-informed understanding of learners' needs.

2.6 Synthesis

The reviewed literature demonstrates that NA has evolved from a static diagnostic process into a dynamic, multidimensional framework that integrates classical theory with technological innovation. The NWL model continues to provide a conceptual foundation, while modern research contributes methodological and digital sophistication. Nevertheless, gaps remain in connecting these developments systematically, especially regarding how triangulated methods and technology can be operationalized in EFL materials development. Addressing this gap is the central aim of the present study.

3. RESEARCH METHOD

This study employed a library research design, relying entirely on secondary data rather than fieldwork or experimental procedures. The objective was to synthesize theoretical and methodological perspectives on needs analysis (NA) in English as a Foreign Language (EFL), with a particular focus on the framework of *necessities*, *wants*, and *lacks* (NWL) and its implications for materials development.

3.1. Data Source

The corpus of literature comprised twenty-five peer-reviewed journal articles published between 2010 and 2024, three seminal books on language teaching and materials development, and two educational policy documents related to curriculum design. These materials were retrieved from reputable databases such as *ERIC*, *Scopus*, and *Taylor & Francis Online*, ensuring academic credibility and accessibility.

3.2. Inclusion and Exclusion Criteria

Sources were selected according to the following inclusion criteria:

1. Relevance to EFL needs analysis, particularly the NWL framework and materials development.
2. Credibility, emphasizing peer-reviewed and widely cited publications.
3. Recency, prioritizing studies from 2010 onward to capture contemporary developments.

Non-peer-reviewed reports, duplicated studies, and research unrelated to EFL (e.g., ESL workplace training) were excluded to maintain focus and validity.

3.3. Analytical Procedure

The selected literature was examined using thematic and comparative analysis. Each source was read in full and coded into recurring categories:

- a. the role of NA in curriculum and materials design,
- b. the NWL conceptual framework,
- c. methodological approaches (questionnaires, interviews, observations, triangulation), and
- d. digital or AI-based innovations.

Comparative analysis was then conducted between classical perspectives [1], [2] and recent contributions [3]–[5] to identify both continuity and change. Themes emerging across studies were synthesized into broader conceptual insights relevant to EFL materials development.

3.3 Research Trustworthiness and Limitations

To enhance reliability, findings were cross-checked among multiple sources addressing the same theme. Although this study is based on published literature, not empirical data, it adheres to standards of transparency by explicitly detailing source selection and analytical procedures.

However, several limitations are acknowledged: the dependence on secondary data, potential publication bias, and limited access to some non-English studies. Future empirical validation is therefore recommended to confirm the synthesized conceptual relationships identified in this review.

4. RESULT AND DISCUSSION

This section presents and discusses the key findings of the literature-based synthesis on needs analysis (NA) in English as a Foreign Language (EFL). Three major themes emerged from the review: (1) the essential role of NA in curriculum and materials design, (2) the framework of necessities, wants, and lacks (NWL) as a conceptual foundation, and (3) methodological diversification and innovation in contemporary NA practices.

4.1. The Essential Role of Needs Analysis in Curriculum and Material Design

The findings reaffirm that NA functions as a cornerstone of EFL curriculum and materials development. Richards [1] asserts that NA ensures alignment between instructional objectives and learners' communicative goals, preventing a mismatch between teaching content and learner expectations. Similarly, Ahmetović and Dubravac [2] highlight that incorporating learners' perspectives in NA enhances motivation, engagement, and relevance. When learners' academic and professional needs are systematically assessed, materials become more contextualized and outcome-oriented.

From a practical standpoint, NA not only informs what should be taught but also how it should be delivered. In resource-limited EFL settings, where imported materials often fail to reflect local realities, NA allows educators to adapt content based on learners' linguistic backgrounds and target contexts. Thus, it serves both pedagogical and sociocultural functions in EFL curriculum design.

4.2. The Necessities-Wants-Lacks (NWL) Framework: Relevance and Adaptation

The NWL framework continues to offer conceptual clarity for identifying and categorizing learner needs. Tomlinson [3] explains that “necessities” represent what learners must know to function effectively in a target situation, “lacks” denote their current deficiencies, and “wants” refer to personal interests and motivations. However, recent research [4], [5] suggests that the application of this model requires flexibility. Learners’ “wants” increasingly reflect global, digital, and intercultural demands beyond purely linguistic skills.

This dynamic interpretation of NWL implies that teachers and material developers must treat the framework as a living construct rather than a fixed model. Balancing these three elements ensures that materials remain authentic, personalized, and responsive to the evolving contexts of EFL learners.

4.3 Methodological Diversification and Innovation

A significant finding across the reviewed literature is the increasing diversification of methods used in NA. Classical approaches—questionnaires, interviews, and classroom observations—remain relevant for triangulation [1], [6]. Yet, emerging technologies have introduced new ways to gather and interpret learner data.

Lin, Zhang, and Zheng [7] designed a context-aware English learning system that continuously identifies learner needs using digital tracking. Chiu, Lin, and Wang [8] expanded this approach by integrating digital analytics and learner feedback loops, enabling adaptive course design. Lofland [9] further advocates for ongoing NA cycles rather than one-time assessments.

The combination of traditional and digital methods creates richer, real-time insights into learner needs—transforming NA into an iterative process rather than a preliminary task. This methodological evolution aligns with modern pedagogical shifts toward learner-centered, data-driven instruction.

4.4 Table 1: Comparative Overview of Needs Analysis Tools and Their Pedagogical Implications

Tool/Method	Function in NA	Strengths	Limitations	Implications for Materials Development
Questionnaire	Collects quantitative learner data	Efficient, covers large samples	Limited depth, potential bias	Identifies general trends for syllabus design
Interview	Explores learners’ perceptions and motivations	Qualitative insight	Time-consuming, smaller scope	Guides personalization of materials
Observation	Captures real classroom behavior	Objective, authentic	Requires trained observers	Reveals practical learning challenges
Digital tools / AI analytics	Tracks ongoing learning patterns	Real-time, adaptive feedback	Technological dependency	Enables data-driven, adaptive materials

Source: synthesized from [1], [3], [6]–[8], [4].

4.5 Discussion: Continuity, Innovation, and Contextual Application

The reviewed literature reveals a balance between continuity and innovation in NA. Classical frameworks such as NWL remain foundational, providing conceptual stability. Yet, digital tools and multimethod triangulation introduce dynamism and adaptability, allowing NA to address complex learner profiles.

In the context of EFL in developing regions, challenges remain—limited digital infrastructure, teacher readiness, and contextual adaptation. Nevertheless, integrating both traditional and technological approaches can maximize validity while maintaining feasibility.

Ultimately, the synthesis underscores that effective materials design must be grounded in systematic and evolving needs analysis. When NA informs the design process, materials become not only pedagogically sound but also socially relevant, ensuring sustainable learner engagement and achievement.

5. CONCLUSION AND SUGGESTIONS

5.1 Conclusion

This study concludes that needs analysis (NA) remains a vital and evolving foundation in English as a Foreign Language (EFL) curriculum and materials development. By synthesizing classical perspectives [1], [2] with recent contributions [3]-[5], the study identifies three key insights.

First, NA plays an essential role in aligning instructional objectives with learners' real-world needs, ensuring the relevance and effectiveness of EFL programs. Second, the *necessities-wants-lacks (NWL)* framework continues to provide conceptual clarity for identifying learner needs, although its practical application must be adapted to contemporary, digitally influenced contexts. Third, methodological diversification-through triangulation and the integration of digital tools-enhances the validity and dynamic nature of NA in today's language learning environments.

Overall, this study contributes to the growing body of literature by bridging classical frameworks and modern innovations, offering a synthesized conceptual model that links theoretical principles of NA to practical applications in materials development.

5.2 Suggestions

From both theoretical and practical perspectives, several implications and recommendations emerge:

1. For teachers: Conduct continuous and triangulated needs analysis to capture learners' changing expectations and challenges.
2. For curriculum designers: Integrate NA findings systematically into syllabus design and curriculum mapping to ensure alignment between learner profiles and institutional goals.
3. For material developers: Design teaching materials that directly respond to identified necessities, wants, and lacks, incorporating both printed and digital resources for contextual relevance.
4. For researchers: Future studies should empirically validate the synthesized framework proposed here, examining how digital and AI-based approaches can enhance the accuracy and adaptability of NA.
5. For policy makers: Encourage the integration of data-driven NA into curriculum standards and teacher training programs to promote more responsive and evidence-based EFL education.

In conclusion, needs analysis should be viewed as an ongoing, multidimensional process that continuously informs pedagogical decision-making. By combining classical theory with modern technology, EFL practitioners can develop materials and curricula that are not only effective but also equitable, adaptive, and future-oriented.

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