

# 100 Years of Research on English Language Learning/Teaching Materials: A Systematic Review

Reza Khany

Ilam University

Ayad Kamalvand (✉ [kamalvand.ayad@gmail.com](mailto:kamalvand.ayad@gmail.com))

Ilam University <https://orcid.org/0000-0002-2576-765X>

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# Abstract

The importance of materials in learning and teaching has prompted substantial number of studies on English language learning/teaching materials (ELLTM). To date, few studies have been conducted to uncover the focus, themes, and challenges in the field. Hence the present study attempted to systematically review, analyze, and synthesize the scope and the coverage of the research articles (RA) on the ELLTM. In so doing, a comprehensive literature search was conducted in the top100 journals with the highest metrics in Scimago Journal Rank (SJR) categorized under “Language and Linguistic”. Using the strings ‘material(s)’, ‘textbook’, ‘coursebook’, and ‘courseware’, the review yielded 661 studies of which 238 met the inclusion criteria. The content and statistical analyses provided evidence that the research direction on ELLTM brought to focus three main themes including evaluation, production, and selection/adoption. Recommendations and avenues for future directions in research on ELLTM are provided.

## Introduction

In general education but also in second language (L2) learning and teaching, materials have been the staple in curricula. Language learning materials refer to texts in all forms which mediate between the intended and implemented curriculum (Dockx et al., 2020). The processes of arriving at the final materials for language learning programs including design and evaluation along with syllabus design, assessment, and evaluation of instruction establish the core activities in applied linguistics (McGrath, 2002).

Language learning materials sit at the intersection of second language acquisition (SLA) theories, ideological preferences, cultural issues, etc. Meanwhile, materials carry the methodological insights that shape language teaching and learning; they are the vehicles by which language learning methodologies are realized. Materials facilitate not only linguistics interaction but they let learners and teachers engage in cultural interactions. They foster language learning (Waters, 2009), and lay the ‘instructional’, ‘experiential’, ‘elicitative’, and ‘exploratory’ contexts for language learners (Tomlinson, 2011).

Materials are tasked to perform various functions chief among them to supply the resources for instruction (Gray, 2002), yield target language linguistic, textual, and generic structures (Pérez-Llantada, 2009), provide authentic content (Gilmore, 2007), endow learners aptitude for communication (Ogura, 2008), develop cultural awareness (Weninger & Kiss, 2013), contribute to assessment considerations (Leung & Andrews, 2012), prepare sufficient degree of practices, task, or drills for internalization of received instruction (Richards, 2001), etc. No wonder these multi-pronged pedagogical functions have provoked a surge of interest in research studies on ELLTM. The scope of these studies ranges from broader areas such as principles for designing materials for language teaching (Nunan, 1988), and evaluation of materials (McGrath, 2004), to narrower ones dealing with a portion of inclusive process of development and evaluation.

It seems that the domain of research on ELLTM, albeit with recent overabundance of studies, lacks a precise picture. A cursory look at the studies conducted manifests scattered views on the principled frameworks for developing ELLTM. Likewise, evaluative criteria to appraise the quality and effectiveness of materials echo subjective standpoint (Harwood, 2005). In addition, missing from the literature are studies that provide a clear perspective in research trends or possible futuristic advancement in developing, selecting, and evaluating typical print English language materials and their technology-based counterparts. Therefore, current state of the

affair was acknowledged to call for an in-depth systematic review (SR) that takes a stab at synthesizing the existing findings of research to build a more concrete picture of ELLTM.

The rationale for the formulation of research questions in the present SR was to assess the research status of the domain, navigate the trends on the literature, identify the types and themes of the studies, and recommend suggestions for further research. The rationale, hence, led to the following questions:

1. What are the directions, focus and themes of research on ELLTM?
2. Have the RAs led to any research trends or tendencies in the field?
3. Does the analysis of the findings open windows for new directions in the field?

## Method

### Literature search

Although this SR makes no claim to exhaustion or completeness, the themes that the study presents emerged from strategies for SR of primary research domains. The RAs on ELLTM published by the top 100 journals grouped by the subject area 'Language and Linguistics' listed in SJR (till June 2020) made the corpus of this SR. The SJR portal includes scientometric indicators for scholarly and professional journals based on data licensed from the Elsevier's Scopus database. The indicators display the visibility of journals based on citation data contained in the Elsevier's Scopus database from 1996 (SCImago, n.d.).

### Search strategy

The primary search strings "material(s)", "courseware", "coursebook", and "textbook" were searched in top 100 language and linguistics journals listed in SJR.

Tomlinson (2011) subsumes textbooks under language learning materials. However, since language textbooks (and their synonym coursebooks) make the main educational sources for language curricula and have gained momentum in the research terrain, the terms "textbook" and "coursebook" were included among the search strings. Moreover, the term "courseware" has recently emerged into instructional practice and research thanks to increasing integration of computer sciences with education. The term means computer-based materials use by teachers as tutorials for learners (Bongalos et al., 2006). Courseware has created a niche in research trend and has been addressed by a large number of studies in SLA (Kukulska-Hulme & Shield, 2008; Susser, 2001; Tsai, 2010; Wyatt, 2013).

### Inclusion and exclusion criteria

One of the inclusion criteria was to include RAs published by journals ranked 1-100 in the SJR. Initially, related RAs with titles holding the predefined strings were retrieved. Three reviewers screened the titles independently so as to properly retrieve all the related RAs. The first screening yielded in 661 RAs or 100% of the data.

Next, the exclusion filter narrowed the retrieved hits to those RAs in which the reflection was on the ELLTM. At this stage, the second run of screening ended up in weeding out of those RAs on languages other than English or on materials in other study subjects. Based on the basis of the predefined exclusion criteria, 238 RAs met the eligibility of the study. The study excluded RAs published by *Research in the Teaching of English*, and *Journal of Writing Research*, because the journals provided no search possibility to retrieve RAs.

## Coding, data extraction and analysis

The qualified RAs were subjected to full-text screening and analysis in this cycle of the study. A template of data-extraction form was designed for the qualified RAs. The data-extraction form contained the title of the study, the author(s), the year of publication, the journal, and the thematic construct of the study. Next, the forms were reviewed so that the study could link the mined themes into higher-order themes for further analysis.

## Findings

A total number of 661 RAs was retrieved from the pool of the top 100 journals in 'Language and Linguistics' category listed in SJR of which 238 RAs from 38 journals possessed the inclusion criteria for this SR (Table 1).

**Table 1. Number and Percentage of ARs in the Journals with Publications on ELLTM**

	n	%
1. ELT Journal	42	17.6
2. English for Specific Purposes	23	9.7
3. System	22	9.2
4. Modern Language Journal	18	7.6
5. Journal of English for Academic Purposes	14	5.9
6. Language, Culture and Curriculum	12	5.0
7. Asian Englishes	10	4.2
8. Computer Assisted Language Learning	10	4.2
9. Language Teaching Research	9	3.8
10. TESOL Quarterly	9	3.8
11. Language Learning Journal	7	2.9
12. Linguistics and Education	7	2.9
13. ReCALL	7	2.9
14. Language Teaching	6	2.5
15. ITL - International Journal of Applied Linguistics	5	2.1
16. Language Learning	5	2.1
17. Applied Linguistics	3	1.3
18. Critical Inquiry in Language Studies	2	.8
19. Journal of Communication	2	.8
20. Journal of Pragmatics	2	.8
21. Journal of Second Language Writing	2	.8
22. Language Awareness	2	.8
23. Poetics	2	.8
24. The Interpreter and Translator Trainer	2	.8
25. World Englishes	2	.8

26.	Annual Review of Applied Linguistics	1	.4
27.	Current Issues in Language Planning	1	.4
28.	Discourse and Society	1	.4
29.	International Journal of Bilingual Education and Bilingualism	1	.4
30.	International Journal of Corpus Linguistics	1	.4
31.	Journal of Language, Identity, and Education	1	.4
32.	Journal of Literacy Research	1	.4
33.	Journal of Speech, Language, and Hearing Research	1	.4
34.	Language Learning and Technology	1	.4
35.	Language Policy	1	.4
36.	Language Testing	1	.4
37.	Studies in Second Language Learning and Teaching	1	.4
38.	XLinguae	1	.4
	Total	238	100.0

## Main research themes

From individual coding and through the authors' collective consensus, the study identified three primary thematic categories within the 100 journals including 'evaluation', 'production', and 'selection/adoption'.

## Evaluation

Materials evaluation encompasses macro dimension which includes a chain of stages and micro dimension which involves a set of techniques in each stage (McGrath, 2002, p. 14). Majority of the RAs on ELLTM fell within the domain of evaluative studies (about 77%). The analytic synthesis of the evaluative studies identified 14 sub-themes listed in the following headings.

Technology-based materials. The orientation of these studies showed two streams in the scopes of the literature. First, some investigated the effects of technology-based materials on teaching and learning language skills (N = 9). Second, some probed extralinguistic factors like motivation or culture (N = 19). Table 2 summarizes the categories obtained from 'technology-based materials' and the distribution of the retrieved studies.

**Table 2. Statistics of RAs under "technology-based materials"**

	n	%	1940s	1960s	1980s	1990s	2000s	2010s	2020s
1. Extralinguistics	19	67.8	1	1	3	4	5	4	1
2. Tech-based materials & writing skills	4	14.3	0	0	0	0	3	1	0
3. Tech-based materials & reading skills	3	10.7	0	0	0	0	0	3	0
4. Tech-based materials & speaking skills	1	3.5	0	0	0	0	0	1	0
5. Tech-based materials & listening skills	1	3.5	0	0	0	0	0	1	0
Total	28	100.0	1	1	3	4	8	10	1

Apparently, about a third of the studies on the effects of technology-based materials on language skills and extralinguistic issues were conducted in the 2010s. In addition, the literature on the effect of technology-based materials on language skills shows inclination towards studies on writing and reading. The studies on writing tested the effects of online instructional materials on students' argumentative writing development; determined the effectiveness of an HTML website on learners' job application letter writing; assessed the impacts of five online units on increasing students' awareness of underused specific adjectives for EFL college writing; and investigated the perceptions of elementary-level English language learners towards WEBGRAM, a system as a supplementary web-based grammar revision materials.

The studies on reading consisted of how ESP courseware implementation leads to better reading comprehension; how a courseware-implemented instruction affects learners use of reading strategies; and how a customized interactive digital textbook housed on a mobile device influences learners' reading behavior.

The two studies on listening and speaking reported on the two qualitative exploratory studies that investigated design features of help options in computer-based L2 listening material; and integration of ESP multimedia courseware and its positive effects on improving students' speech texts.

The earliest study on technology-based materials and issues beyond language skills found in this SR dated back to the late 40s. There the study reviewed the effect of phonograph on textbook design. Another first endeavors in technology-based materials was a study in the 1960s. It explained the advantages of using filmstrips on magnetic tapes in non-English contexts. In the 1980s, a study suggested recommendations aimed at enriching courseware with language learning trends. By the same token, a study discussed the ways that enable producing quality courseware. Later, an article highlighted the adaptability and flexibility in structure as two essential features for CALL materials. The 1990s characterized by the attention to link CALL materials designs to findings of research in linguistics, conceptualization of CALL materials and developing theoretical frameworks to support CALL materials, ESP approach in courseware design, and process-oriented needs analysis to CALL materials design. The early and late part of the 2000s saw the inclusion of culture in electronic materials. The RAs reflected on developing cross-cultural awareness through multimedia courseware, and

understanding target language culture by using online interactive tasks. The other studies in this decade probed the effects of electronic texts on language learning, assessed content and concept in CALL materials design, and tested the extent to which language learners use cognitive, social, and metacognitive strategies while working with computer-based materials. In the 2010s, researchers developed courseware that supports an XML-based markup language and an authoring tool for teachers to script animated pedagogical agents in materials. A study evaluated a multimedia courseware design based on the cognitive theory of multimedia learning. The retrieved RAs in 2018 analyzed ESP students' performance in a blended learning environment using smart books, and the effects of technology-enhanced board games in flipped classrooms on learners' motivation and anxiety. The latest article in the pool of the study explored the new form of lecture in academic contexts known as OpenCourseWare (OCW). The study found that OCW lectures support educational contexts with digital affordances including lecture transcripts with metadata, content structuring, and navigational features that give EAP learners more control over lecture experience.

Culture and English materials. Table 3 presents the categories under 'culture and English materials'. A dozen studies dealt with the representation of cultural elements in textbooks. ELT materials and their role in learners' cultural awareness and the ways they make learners culturally competent were the focal themes in 21.7% of studies. The interconnections between culture and discourse/pragmatic issues in textbooks together with L1 and L2 cultural issues in materials were spotted in four studies. Two studies reflected on the cultural bias in ELT materials, and perceptions of culturally-bound illustrations in textbooks by EFL learners.

<b>Table 3. Statistics of Categories under "Culture &amp; English Materials"</b>								
		n	%	1980s	1990s	2000s	2010s	2020s
1.	Cultural representation in materials	12	52.2	2	0	1	8	1
2.	Cultural awareness/competence	5	21.7	0	1	0	3	1
3.	Cultural & discourse/pragmatics	2	8.7	0	0	0	2	0
4.	L1 & L2 cultural issues	2	8.7	0	2	0	0	0
5.	Visuality & cultural understanding	1	4.3	0	1	0	0	0
6.	Cultural bias in textbooks	1	4.3	0	0	1	0	0
	Total	23	100.0	2	4	2	13	2

Print-materials and language skills. A portion of the retrieved RAs embodied the query into treatment of language skills in print-materials. This category of studies stood at the 8.4% in total retrieved RAs and encircled five categories (Table 4). Whereas some studies investigated materials for one skill, some studies pursued two skills in their investigations. Table 9 demonstrates that research orientation has slanted toward probing reading skills.

**Table 4. Statistics of RAs under "Print-Materials & Language Skills"**

	n	%	1920s	1930s	1970s	1980s	1990s	2000s	2010s
1. Print-materials & writing skills	7	35.0	0	0	0	1	2	2	2
2. Print-materials & reading skills	6	30.0	1	2	1	0	0	0	2
3. Print-materials & mixed studies	4	20.0	0	0	0	0	2	1	1
4. Print-materials & speaking skills	2	10.0	0	0	0	0	1	0	1
5. Print-materials & listening skills	1	5.0	0	0	0	1	0	0	0
Total	20	100.0	1	2	1	2	5	3	6

The attempts to explore writing in materials have begun in the 1980s. These investigations linked ELT materials to different aspects of language learners' writing development. Reflections on print-materials and reading skills were embodied in approximately one third of RAs. The literature on materials, though infrequently, has also scrutinized speaking and listening. The studies on speaking made a sketch of hints for teaching stress and intonation and pronunciation. The RA on listening claimed that the development of selective listening skills is conditioned upon the presence of real interactional and peripheral exemplars.

On the mixed side of the RAs, two skills converge in RAs to give a bigger picture of mutual effects on language learning development. A paper probed the strategies adopted in reading and writing textbooks for adult literacy. Utilizing field-specific written materials for teaching oral skills to promote automaticity in oral production and enhancing the intelligibility of language learners through the improvement of fluency and pronunciation directed the path of another study. Exposing learners to narrative and expository reading materials as a part of extensive reading program to enlarge students' vocabulary reservoir was evaluated in one study in. And finally, a study evaluated the output of learning L2 technical words through academic reading materials.

Corpus-based materials. 'Corpus-based materials' made one of the sub-themes under evaluation theme with 7.98% of total studies. Table 5 renders the constituting categories of this sub-theme. Themes related to corpus studies and materials development are more recent, appeared more frequently after 2010.

**Table 5. Statistic of Categories Under "Corpus-Based Materials"**

	n	%	2000s	2010s	2020s
1. Corpus & materials evaluation	12	63.1	3	9	0
2. Corpus & word list	4	21.1	0	3	1
3. Corpus & writing	3	15.8	2	1	0
Total	19	100.0	5	13	1

By using written and spoken corpus, 63.2% of studies analyzed materials in terms of hypothetical meaning, spoken grammar, real world interactional strategies, metaphors, discipline-specific content, single and multiword construction, lexical bundles, text, and linguistic difficulty. Electronic corpora guided studies to develop word lists for an Engineering English textbook, a Medicine English textbook, a reading textbook, and transparent formulaic sequences for an EFL textbook. Language corpora have been shown to create systematic pedagogical opportunities for language learning and teaching. Hence, the potential has motivated researchers to analyze the effects of corpus-based instruction on improving writing skills.

Theories/methods and materials. The inventory of RAs in the pool of the current study embraced studies that evaluated the concretization of theories in materials. Table 6 shows the related categories under this theme.

**Table 6. Statistics of RAs under “Theories/Methods & Materials”**

	n	%	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
1. Textbook evaluation against theories	6	33.3	0	2	2	0	0	0	0	2
2. Theories realization in textbooks	6	33.3	1	0	0	0	1	0	0	4
3. Theories & language components	4	22.3	0	0	0	1	0	3	0	0
4. Teachers & theory understanding	1	5.6	0	0	0	0	0	0	1	0
5. Classroom ecology & grammar textbook	1	5.5	0	0	0	0	0	0	0	1
Total	18	100.0	1	2	2	1	1	3	1	7

The advent of theories and methods of language learning and teaching in SLA derived a part of literature to evaluate the realization of the theories and methods in language materials. On the other hand, an equal number of studies ( $N = 6$ ) analyzed materials to judge the degree of their compatibility with principles of theories/methods. A category of RAs narrowed down their research caliber, in that they selected a specific part of the materials and appraised it with the target theories/methods. Two studies on a theory-representative benchmark evaluated pronunciation section of the materials. Two RAs Evaluated a reading section along with grammar tasks in two language learning materials. In two studies, the researchers gauged the ecology of a classroom interaction with a grammar textbook, and the corollation between teachers’ understanding of EFL/ESL research perspectives and the practice of teaching pronunciation textbooks.

Discourse/pragmatic and materials. About 6% of all studies moved in ‘discourse/pragmatic and materials’ direction. Taken together, these studies centered on five underlying categories (Table 7).

	n	%	1980s	1990s	2000s	2010s	2020s
1. Speech act & textbooks	4	26.7	1	2	0	1	0
2. Discourse & textbooks	4	26.7	0	0	0	4	0
3. Textbooks & varieties of discourse	3	20.0	1	0	1	1	0
4. Textbooks & rhetoric/stylistic	2	13.3	0	0	0	1	1
5. Textbooks & interactional strategies	2	13.3	0	0	0	2	0
Total	15	100.0	2	2	1	9	1

The studies on pragmatics and ELLTM opted for speech acts, the most common of which were speech act of apology, agreement/disagreement, and complaint/commiseration. One study developed a checklist of interactive functions based on speech act theory, examined the communicative goals that textbooks follow. The studies on discourse and materials shed light on the representation of immigrants’ discourse in textbooks, and neo-liberal discourse in textbooks. Moreover, two RAs emphasized the role the discourse studies would play in materials development, and assessed the use of English in local textbooks. About 13% of the studies concerned with analysis of varieties of discourse in textbook, including political speeches, gossips, and conversations, academic lectures and academic written materials, and analogy and technical language. Besides, academic textbooks were analyzed for their ability to enhance learners’ rhetorical skill and stylistic awareness. Finally, two studies appraised the adequacy of textbooks to develop learners interactional strategies in workplace communication.

**Ideology and gender/identity in materials.** Ideological issues alongside gender/identity-related concepts captured the essence of 14 RAs on ELLTM. From a closer angle view of the qualified studies, nine related categories were codified (Table 8).

**Table 8. Statistics of Categories under “Ideology and Gender/Identity in Materials”**

	n	%	1980s	1990s	2000s	2010s	2020s
1. Sexism in textbooks	5	35.7	1	0	1	2	1
2. Ideological tensions in textbooks	2	14.3	0	1	0	1	0
3. Ideology & content of textbooks	2	14.3	1	0	1	0	0
4. Teachers & identity issues in textbooks	1	7.1	0	0	0	1	0
5. Oppressive ideology in textbooks	1	7.1	0	0	0	0	1
6. Ideology in practice	1	7.1	0	0	0	1	0
7. Native-speakerism in textbooks	1	7.1	0	0	0	0	1
8. Global market & ideology change in textbooks	1	7.1	0	0	0	1	0
Total	14	100.0	2	1	2	6	3

Of the 14 RAs, five evaluated the presence of prejudice toward one gender over the other and gender manifestations in textbooks. Ideological tensions in textbooks were examined in terms of internationalization and nationalization, and from a post-structuralist perspective. Adoption and design of content for textbooks which bear ideological viewpoints added another dimension within the literature in this cluster of studies. Almost the other half of the studies reported on the ways teachers apply when they try to balance discursive patterns of textbooks to suit students' identity, symbolic manifestations of heteronormativity as a form of oppressive ideology in textbooks, ideological effects on the language students use in lectures, materials designs which favore native speakers' norms, and the changes in ideological positioning of ELT coursebooks due to the global market mechanism.

Authenticity and English materials. These studies assessed the effects of materials authenticity on some language-related issues and analyzed areas within the realm of authenticity. Table 10 presents the categories found under the banner of 'authenticity and English materials'.

	n	%	1990s	2000s	2010s
1. Authenticity & L2 learning	5	38.5	1	1	3
2. Authenticity & discourse/pragmatics	4	30.8	0	3	1
3. Authenticity & pedagogical issues	3	23.0	0	2	1
4. Authenticity & motivation	1	7.7	1	0	0
Total	13	100.0	2	6	5

The most frequent research tendency in this category of studies was evaluating the relationship between the authenticity of materials and L2 learning, which was conducted by five articles. The RAs with the discourse/pragmatic orientation explored the authenticity of conversational texts in textbooks, the authenticity of speech act of requests and disagreement, as well as the authenticity of discourse features of materials. Additionally, the pedagogical values of using authentic materials in a broader view was inspected, by three papers. From a psychological perspective, an article probed the relationship between authentic materials and learners' motivation.

Teachers and learners' attitude toward materials. Understanding teachers and learners' attitude toward ELLTM made the point of departure for 13 RAs. This primary theme subsumed four related categories for teachers and the same number for learners (Tables 10 & 11). Within the teachers' domain one study reported on teachers' negative perception of the use of EFL textbooks in their praxis, and another study reflected on the stakeholders' perspectives on materials and resources employed in a bilingual program in a monolingual context. Teachers' attitudes toward reading materials and an action pack designed for a textbook constituted another part of the literature. Further, the RAs narrated teachers' perception of cultural content as well as using audio-visual materials in their practice. The studies on learners' attitude toward materials included learners' attitude toward textbooks, their attitude toward tech-based materials, cultural content of a textbook, and CLT-based materials.

	n	%	1940s	2000s	2010s	2020s
1. Teachers' attitude to textbooks	2	33.3	0	0	1	1
2. Teachers' attitude to a section of textbooks	2	33.3	0	2	0	0
3. Teachers' attitude to cultural content of textbooks	1	16.7	0	1	0	0
4. Teachers' attitude to multimodal materials	1	16.7	1	0	0	0
Total	6	100.0	1	3	1	1

	n	%	1980s	2000s	2010s
1. Learners' attitude to textbooks	4	57.1	0	1	3
2. Learners' attitude to tech-based materials	1	14.3	0	0	1
3. Learners' attitude to cultural content of textbooks	1	14.3	0	0	1
4. Learners' attitude to communicative materials	1	14.3	1	0	0
Total	7	100.0	1	1	5

Criteria for English materials evaluation. Table 12 summarizes the categories drawn from sifting through the 238 qualified RAs which set evaluative criteria for ELLTM. These types of studies attempted to offer criteria and frameworks enabling materials evaluators to approach materials evaluation. Checklists and general guidelines shaped two types of studies received the most attention in materials evaluation.

	n	%	1980s	1990s	2000s	2010s
1. Checklist for evaluation	3	42.9	1	1	1	0
2. General criteria	3	42.9	0	2	0	1
3. EAP evaluation	1	14.3	0	0	1	0
Total	7	100.0	1	3	2	1

A trio of RAs resorted to checklists for materials evolution. These RAs applied the method to assess teach-yourself package materials, and business materials. The remainder of RA suggested a checklist of items for general materials evaluation. The other cluster in this terrain rested on a broader view in evaluation. In this domain, one study referred to pre- and post-publication phases in materials evaluation, another one pointed to predictive and retrospective evaluation, and the last one described a knowledge process framework for materials evaluation. Finally, an RA suggested feedback-instruments to run evaluative reviews on EAP materials.

Materials and lexis. While screening the retrieved RAs, seven studies were detected to be engrossed in dealing with the treatment of vocabulary in language materials. Table 13 summarizes the main categories which were mined under this theme.

	n	%	1950s	1990s	2010s
1. Repetition	2	28.6	1	0	1
2. Collocations	1	14.3	0	0	1
3. Word aspects	1	14.3	0	0	1
4. Word coverage in textbooks	1	14.3	0	0	1
5. Verb classes in textbooks	1	14.3	0	1	0
6. Words & strategy use	1	14.3	0	0	1
Total	7	100.0	1	1	5

Studies covered various aspects. A sector of studies focused on the importance of repetition for internalization of the words, and making arrangements for recycling words by tasks in the textbooks. A study evaluated how well textbooks supply students with collocations. Another study evaluated materials against aspects of word knowledge that learners need to develop their word knowledge. The amount of vocabulary that textbooks provide as input for learners made the research direction for an RA. Two studies examined the class of verbs that a textbook covers, and the relationship between vocabulary materials and learners' strategy use.

**Materials and professionalism.** Three RAs in the pool of the current study attended to teachers' professional growth through materials development. In one RA the validity of the claim that engaging teachers with materials contributes to professionalism in non-native teachers was tested. In the next study, three ELT teachers evaluated the student and teacher editions of a newly-released ELT textbook using the technique of concurrent verbalization. The results showed that the technique was able to grow body of knowledge on expertise, provide insight into the differences between the teachers with respect to their various evaluation strategies. Finally, an article examined the changes occurred in language testing textbooks since Lado.

For and against materials. Three RAs concentrated on whether to use or refrain from using materials in the language learning and teaching process. Within this framework a study in the 1950s posed the question whether textbooks are needed and created several scenarios to answer the question. Four decades later, emphasizing the role of textbooks in the processes of educational change, an RA challenged the anti-textbooks assumptions and reasoned against their hostility. In the 21st century, a study discerned the weak and strong anti-textbook streams and concluded that even though the weak line most accurately depicts the status of EAP textbooks, it could not be tagged as anti-textbook line.

Materials format. Submerged by the floods of information dispensed by the many forms of language learning materials, language learners are witnessing an unprecedented flow of content that makes it effortful to orient to the stream. The abundance of information in written materials necessitates a design for textbooks which aids students to absorb the information and recall it in optimal ways. Therefore, a paper addressed the importance of the format of the textbooks and suggested a range of ideas.

## Materials production

Materials production, how materials come into being, is an umbrella term for pulling together principles for materials writing, principle-based procedures for writing materials, planning items to include in materials including tasks, drills, reading texts, etc., in which the final product comes to forth. In publications from within the 'materials production' the studies had research orientations of many stripes. The sub-themes under 'materials production' are given in Table 14.

**Table 14. Statistics of Sub-Themes under "Materials Production"**

	n	%	1950s	1970s	1980s	1990s	2000s	2010s	2020s
1. Theories/principles for materials production	12	34.3	1	2	0	3	1	4	1
2. Activities for textbooks	8	22.8	2	1	1	1	1	1	1
3. Description of materials production projects	4	11.4	0	0	2	1	0	1	0
4. Teachers & students' role in materials production	4	11.4	0	0	1	2	0	1	0
5. Video/visual materials	3	8.6	0	1	1	1	0	0	0
6. Problems in materials production	2	5.7	1	0	0	1	0	0	0
7. Optimal use of textbooks	1	2.9	0	1	0	0	0	0	0
8. Review of materials development	1	2.9	0	0	0	0	0	1	0
Total	35	100.0	4	5	5	9	2	8	2

Approximately 34% of the RAs in this theme explained the procedures to apply theories and principles of SLA in producing materials. A pragmatic type of studies delineated the characteristics of activities to include in materials. The projects in producing materials around the world were described by four RAs. What teachers and students can perform in materials production was the subject of 11.4% of studies. The same percentage of RAs outlined the processes for designing electronic, video, and visual materials. A pack of three studies reported on the existence of problems in production of materials, and how to optimally use the materials in curricula. And finally a paper in three reviewed the literature on materials development.

# Materials adoption/selection

Parallel to materials evaluation and production, materials selection/adoption calls for defining eligibility criteria that rationalize the inclusion of language learning and teaching materials in language learning programs. Literature on ELLTM has highlighted the need to have a solid benchmark of criteria to be a point of reference for materials selection and adoption (Tomlinson, 2012). The analysis of the pool of the current study identified 20 RAs in which their main theme spun around materials adoption and selection. Table 15 summarizes the sub-themes and the distribution of the retrieved RAs by decades giving the numbers of studies per decade.

**Table 15. Statistics of Sub-Themes under “Materials Selection/Adoption”**

	n	%	1930s	1960s	1970s	1980s	1990s	2000s	2010s
1. Standards for materials selection	5	26.3	1	0	1	1	1	1	0
2. Teachers & materials selection	4	21.1	0	1	0	0	1	1	1
3. Students & materials selection	3	15.8	0	0	0	1	0	1	1
4. Projects in materials selection	2	10.5	0	0	0	0	1	0	1
5. Ideology in textbook selection	1	5.3	0	0	0	0	1	0	0
6. Issues in selection self-instructional materials	1	5.3	0	0	0	0	1	0	0
7. Selecting novels for EFL courses	1	5.3	0	0	1	0	0	0	0
8. New media selection beside traditional textbooks	1	5.3	0	0	1	0	0	0	0
9. Materials selection for deprived students	1	5.3	0	0	1	0	0	0	0
Total	19	100.0	1	1	4	2	5	3	3

A slightly over a quarter of the RAs made a reference to standards for choosing materials for language learning and teaching programs. Inclusion of teachers and learners in the cycle of materials selection/adoption was investigated by eight articles. In two RAs, a description of projects in materials selection in Oman, and Argentina was provided. The presence of pre-established ideology in textbook selection in China, the benefits and problems of selecting self-instructional materials in Japan, choosing novels as textbooks at university level, equipping teachers with new media beside their traditional textbooks, and eventually making provision for deprived learners in materials selection made the main themes of the ¼ of the RAs in this category of studies.

In order to map the research trends or tendencies in each decade, the study calculated the number of RAs on the identified themes and sub-themes. The findings in Figure 1 points to the fact that unlike the 20<sup>th</sup> century in which literature was oriented toward production themes, evaluative studies have occurred more frequently at the turn of the 21st century. Whereas technology-based studies were the reoccurring topic and prominent theme in total published RAs, 'theories/principles for materials production' was the area that occurred more times than other themes by decade. Statistically, tech-based materials occurred most frequently in the 2000, however, the number of the studies exceeded no more than nine. The number of studies on cultural issues and corpus-based materials was identically 13 per each theme. It should be noticed that for gaining better overview over the research trends the decades with more than five published articles were included for analysis.

## Discussion

This SR sought to answer three questions about research on ELLTM. The discussion of results is framed around each individual question.

*What are the directions, focus and themes of research on ELLTM?*

The study yielded a sample of 238 RAs. Three main themes were spotted to occur more frequently in RAs on English materials. Approximately 77.5% of the RAs ( $N = 184$ ) had evaluative orientation. This category of the studies encompassed a diversity of 14 sub-themes. Of the 14 sub-themes 'technology-based materials' topped the table within this theme and within all the papers by 28 RAs (15.21% of studies in the 'evaluation' theme, and 11.76% of all qualified studies). Statistically, according to the figures, one might expect that about 12 out of 100 studies on ELLTM concentrate on the relationship between materials and CALL studies. The second position goes to the studies with culture-oriented themes. These types of studies ( $N = 23$ , 12.5% of RAs in 'evaluation', and 9.66% in all qualified ones) dominated jointly with corpus-based studies the stream of the literature on ELLTM in the 2010s. The effects of materials on listening, speaking, reading, and writing were embodied by 20 papers which secured the third rank for this class of RAs. Studies on discourse/pragmatics, teachers and students' attitude, authenticity of materials, ideology and gender/identity in materials, criteria for materials evaluation, materials and professionalism, for and against materials, and materials format were other constructs within evaluation studies

The second primary theme treated the ways and approaches that guide the materials writers to produce and design English materials. This theme encompassed 12 sub-themes in which the authors chiefly reflected on proposing principles/theories for materials production within this category. Another statistical indicator signifies that around every three years in 100 years one article dedicated itself to the theme 'materials production'.

The third theme was the notion of 'materials selection/adoption'. The theme was represented by 19 RAs which gave insights into nine concepts. About half of the RAs in this theme discussed issues related to standards for materials selection as well as the teachers' role in the process of adoption/selection.

*Have the RAs led to any research trends or tendencies in the field?*

The thematic clustering of the RAs of this SR exhibited two typologies of research tendencies rather than trends within the journals' publication. The two tendencies belong to production and evaluation categories of the qualified RAs with no representative in the selection one. In the 20th century the whole research focus inclined

toward studies on producing English materials. In the 1950s, 1970, 1980s, and 1990s the RAs specified theories/methods in the materials and fabricated theory-driven activities for materials. The journals published studies marking how to apply insights of theories and methods, for instance, the linguistic movement, and oral-aural methods in producing language learning materials. The 1950s coincides with the language teaching experts' writing including Robert Lado (1953) and Ernest Wolf (1953) who focused on learning theories as preliminaries to their praxis (Mitchell et al., 2019). The RAs in the 1950s also prioritized the inclusion of standard grammar and reconstructed dialogues in the textbooks which rooted in a version of structuralism developed by Palmer in the 1920s, and subsequently by Fries and his Michigan colleagues in the 1940s (Mitchell et al., 2019). The studies in the 1990s were more diverse in terms of topics. In addition to specifying the insights of theories and suggesting activities for materials, they suggested that visuals and video-based technologies be used in materials. They, further, described some projects in materials production around the world.

The other tendency, evaluative studies, started in the 2000s whereby the effects of technology-based materials on language learning were evaluated. The movement of materialization of technology in education in general and in language learning materials in particular, indeed, dates back to the 1980s. Although the applications of computer in education was not a recent phenomenon and computer-assisted language instruction (CALI) was in use, applying the technology in language learning sphere was in its infancy. The emergence of microcomputers further facilitated the development of CALL programs and the eruption of publications on the subject in the early 1980s (Marty, 1981). The development of CALL programs has gone through three phases called behavioristic CALL, communicative CALL, and integrative CALL (Warschauer, 1996). The qualified RAs from the 1980s were based mainly on recommendations for producing theory-driven, flexible, and quality courseware. However, the RAs in the 2000s were more culturally oriented in design. This tendency reflects the emergence of researchers who challenged the cognitive view of SLA in terms of foci in the late 1990s and 2000s (Larsen-Freeman, 2018). The RAs in the 2000s centered on developing intercultural understanding, understanding L2 culture, developing cross-cultural awareness, and teaching literature from intercultural perspectives.

The other major research tendencies were in the 2010s onward in which evaluation of cultural issues in materials, evaluation of corpus-based materials, and evaluation of ideology and gender/identity in materials were loci of the literature. The RAs on culture and materials resonate with the heightened emphasis that L2 learning and cultural issues are inseparably intertwined. The sociocultural theories of learning reflect the Vygotskian perspectives that language learning is a socially situated activity (Ohta, 2000). The qualified RAs in the 2010s and 2020s ( $N = 13$ ) mainly discussed the representation of cultural elements in the ELT textbooks and developing cultural awareness in L2. The idea of using corpora for linguistic purposes started in the 1960s, yet the growth of the method occurred phenomenally in the 2000s (Lindquist, 2009). The majority of RAs on corpus-based materials, however, was not seen in the 2000s but in the 2010s ( $N = 14$ ). Ideology plays a canonical role in education; therefore, research has inspected it from different angles to identify its influence on education (Corella). In addition to ideology, the RAs concentrated to gender and identity in ELLTM. This trend in research on materials involved eight papers which primarily focused on sexism and ideological issues in ELT materials across the world.

*Does the analysis of the findings reveal any prospective need for the research in the field?*

Statistically, about 2.4 articles per year were published over the 100-year period. Quantitatively, the figure strongly implies that the field is under-researched and it needs a greater number of RAs owing to the crucial function it has in language learning pedagogy. The number of publications per year turns it safe to reiterate what Chapelle (2010) has claimed that the field is in short of empirical studies in materials evaluation. The same assertion can be made for materials production and adoption/selection. As the top journals are usually the point of references for researchers, 54 RAs (in 100 years of the life of the field in these journals) cannot be considered a logical number to supply the researchers in case when they refer to issues in materials production and adoption/selection.

The research tendencies in the past two decades show that sociolinguistics has become the priority of the researchers. Nonetheless, as teachers and learners are the main consumers of language materials, it might be more sensible to spell out the factors in language skills that influence language learning more directly in research studies. Despite the fact that language skills should be presented in an integrative fashion in instruction (Burns & Siegel, 2018), speaking and listening skills were marginalized in the literature.

Mobile technology in language learning within educational centers is not the future, but the present of education. Although the first smartphone was born in 1992, the RAs within this SR have not paid attention to the technology. Literature has confirmed the usefulness of mobile applications to develop learners' language skills and motivation (Kukulska-Hulme & Viberg, 2018), yet in spite of the device being much more than calls, the study spotted no RA analyzing the educational merits of the device. Meanwhile, the literature also has space to look at the new generations of tech-based textbooks which are at the edge of a breakthrough into traditional prototypes. Most of the latest generation of e-readers, such as Amazon's Kindle 2, Sony's PRS-700 (Butler, 2009), and iBooks 2 (Kwok, 2012) offer new avenues for conducting research from various perspectives.

The content analysis of the RAs revealed the lack of sensitivity to environmental issues which have severely impacted human lives. None of the qualified RAs took into account the possibilities of linking materials to ecological issues. Ecolinguistics has established itself as a discipline (Steffensen & Fill, 2014) and it has opened up new horizons for research initiatives (Stibbe, 2001). The field can guide researchers to a fertile land where they can encounter the interplay of human activities and environment in which it is saturated with language, interactivity, and co-existence (Steffensen & Fill, 2014).

The RAs failed to present semiotic signs in public spaces as pedagogic resources in materials. The field of Linguistic Landscape (LL) as a method grounded in a variety of theories, from politics and sociology to linguistics, and education, geography, economics, and law explores how language is used regarding ethical issues, ethnographical and anthropological considerations, multiliteracies, etc. (Gorter, 2006), can have manifestations in materials development especially in multilingual societies. The theoretical, critical, and methodological perspectives in LL have been illustrated in Shohamy and Gorter's (2008) book that can guide research into materials development.

The study found that the RAs made no distinction between materials evaluation and materials analysis. There were some studies that used the two terms interchangeably. According to definitions, analysis involves an objective process leading to verifiable description. On the other hand, evaluation is a word which suggests making judgement. Textbook analysis, for instance, occurs at three levels in which the focuses of analysis are 'what is there', 'what is required of users', and 'what is implied' (Littlejohn, 2011). The aims of the three levels are

to, among others, to consider statements of description, physical aspects of materials, main steps in the instructional selections, what medium will be involved, deducing teacher and learner roles, and selection and sequencing of the tasks (Littlejohn, 2011, p. 185). The upcoming studies need be sensitive to the distinctions between materials analysis and materials evaluation.

Additionally, the field can reap the benefits of using visuals in materials. The RAs paid no attention to mechanisms for converting visuals into pedagogic aids that ameliorate the experience of teaching and learning (Portewig, 2004). Prospective research on materials development can appreciate the pedagogical values of visual and make trial of assessing teachers and learners' visual literacy as well as investigating the offshoot of using pedagogically-tailored visuals in learning and teaching materials.

Literature has referred to teacher's books as resources that improve teachers' professional development (Nunan, 1991). In addition, teacher's books can benefit the inexperienced teachers more as they can supply them with on-the-job training (Richards, 1998). Despite the importance of teacher's book, the literature was not cognizant of the functions of the teacher's books and the pool of this SR was completely without any RA on the issue. Moreover, the pool comprehended no study on workbooks. Studies on materials development can scrutinize these two absent entities in the future.

## **Conclusion**

The earliest steps in research on ELLTM found its center of gravity in SLA and applied linguistics in the early 1920s. Although the interest in materials development has waxed and waned over time, it remains around and will inflame initiatives. This SR presented several themes found by a rigorous analysis of the content of the qualified RAs on English materials development.

## **Limitations Of The Study**

Some limitations of this SR may affect the findings. First, some RAs in journals were not accessible due to the inaccessible databases. Second, some studies which qualified for the inclusion criteria had overlapped themes that could not be assigned to specific category as accurately as possible. The researchers, however, tried to place such studies in right categories based on the relative importance of the themes covered by the RAs. Thus, some upcoming studies may report different themes for some RAs. Third, due to the researchers' judgments over certain themes, the thematic categories of the RAs may display subjective orientation.

## **Declarations**

### **Availability of data and material**

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

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## Competing interests

The authors declare that they have no competing interests.

## Authors' contributions

RK participated in its design and coordination and helped to draft the manuscript. AK conducted the data analyses and drafted the manuscript. All authors read and approved the final manuscript.

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## Figures

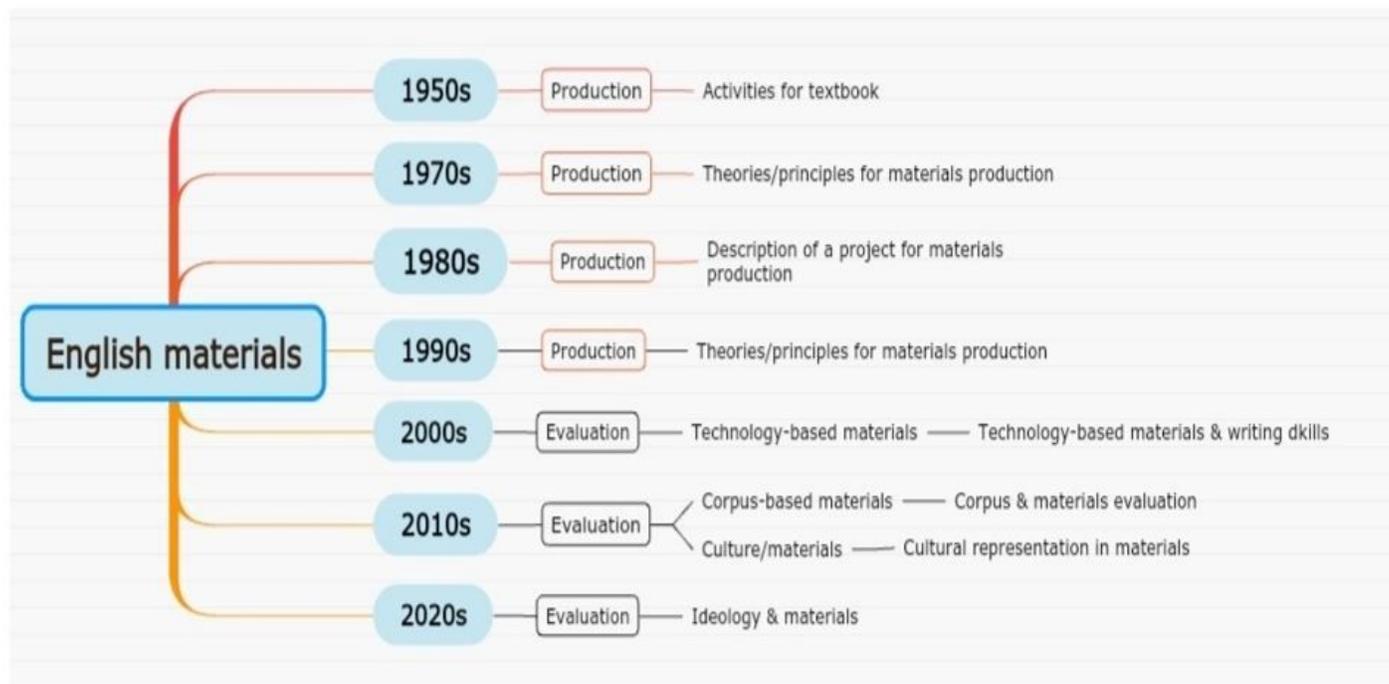


Figure 1

Research Tendencies Mapped in some Decades in which the Number of RAs Exceeded 5