

## Supplementary material: literature review

### 1. Search criteria & data bases

- Search criteria literacy learners:
  - Search terms: (learn\* OR education OR course OR classroom OR vocational OR training OR instruction OR instructed) AND (online OR blended OR "technology-mediated" OR "technology mediated" OR "technology-enhanced" OR "technology enhanced" OR digital OR "e-inclusion") AND (adult\*) AND (low-literate OR "low literate" OR "non-literate" OR "non literate" OR illiterate OR LESLLA OR "basic skills" OR "adult basic education" OR "ABE"))
  - Published in the last 10 years (2011-2021)
  - Peer reviewed
- Search criteria L2 learners:
  - ((learn\* OR education OR course OR classroom OR vocational OR training OR instruction OR instructed) AND (online OR blended OR "technology-mediated" OR "technology mediated" OR "technology-enhanced" OR "technology enhanced" OR digital OR "e-inclusion") AND ((L2 OR "second language acquisition" OR "SLA" OR "computer assisted language learning" OR "CALL" OR "mobile assisted language learning" OR "MALL" OR "task-based language teaching" OR "TBLT" OR "language learning") OR (migra\* OR newcomer\* OR refugee\*))) AND ((title:(review OR "meta-analysis" OR "survey article" OR "meta-synthesis")) OR (abstract:(("systematic review" OR "review study" OR "critical review" OR "review article" OR "meta-analysis" OR "survey article" OR "meta-synthesis"))) OR (descriptor:(review OR "meta-analysis" OR "survey article" OR "meta-synthesis"))))
  - Published in the last 10 years (2011-2021)
  - Peer reviewed
- Data bases:
  - ERIC
  - Web of Science
  - LLBA

### 2. Criteria for inclusion and exclusion

- Criteria for inclusion and exclusion round 1 (screening abstract & title)

#### CRITERIA FOR INCLUSION

- The study examines the organization or implementation of blended education, as in the definition we use
- The study focuses on adult education;
- The study concerns education for adults who are low-literate, or second language learners (or both);
- The study is published in a journal or book whose quality has been assessed by fellow scientists (peer review or dissertation);
- The method is well-developed and is discussed in a transparent manner.

#### CRITERIA FOR EXCLUSION

- Duplicates
- Collected works
- The study is not about blended education
- The study does not discuss empirical research results
- The study is about foreign language education
- The target audience of the study is not adults
- The target audience of the study is people with disabilities

- Criteria for exclusion round 2 (screening full text)

<b>CRITERIUM FOR EXCLUSION</b>	<b># EXCLUDED STUDIES LITERACY LEARNERS</b>	<b># EXCLUDED STUDIES L2 LEARNERS</b>
The study does not discuss empirical research results (description of educational practice, research methodology, ...)	15	9
The target audience of the study are not adults with low literacy, or second language learners (or both); (e.g. students in higher education, foreign language students, ...)	2	8
The study focuses on 'emergent technologies'	0	10
The study does not study the organization or implementation of blended education, as in the definition we use (e.g. MOOC, informal learning)	0	6
The method is not well developed or is not discussed in a transparent way.	0	2
There is another, more recent review on this small research topic (e.g. computer-mediated feedback for NT2 learners)	0	1
There is no full text of this study available	8	0
<b>Number of studies selected for synthesis</b>	<b>2</b>	<b>6</b>

### 3. List of included studies

- Review articles on blended second language learning for adults

REFERENCE	TIMESPAN INCLUDED STUDIES	L2 STUDIED	METHODOLOGY	RESEARCH TOPIC
HUGHES, N., LO, L., & XU, S. (2019). BLENDED CHINESE LANGUAGE LEARNING DESIGN: AN INTEGRATIVE REVIEW AND SYNTHESIS OF THE LITERATURE. THE LANGUAGE LEARNING JOURNAL, 47(3), 313-331.	2005-2015	Chinese	Integrative literature review for which articles are searched with Google Scholar. Critical assessment resulted in 4 articles for a synthesis.	This article aims to provide an overview of literature on blended Chinese language teaching: to identify strengths and weaknesses of existing research and to bring the literature together in parameters for blended Chinese language teaching.
SU, F., & ZOU, D. (2020). TECHNOLOGY-ENHANCED COLLABORATIVE LANGUAGE LEARNING: THEORETICAL FOUNDATIONS, TECHNOLOGIES, AND IMPLICATIONS. COMPUTER ASSISTED LANGUAGE LEARNING, 1-35.	2010-2019	English	Review study in a three-step process, consisting of article search, article screening and data analysis. The article search via Web of Science yielded 40 articles, which were examined on 5 aspects: nature of the publication, theoretical framework, type of technology, effectiveness of the technology and implication of the study.	This article examines the effect of technology-assisted collaborative learning on the development of students' language skills and affective status.
ZHANG, R., & ZOU, D. (2020). TYPES, PURPOSES, AND EFFECTIVENESS OF STATE-OF-	2016-2019	English	Review study by a three-step process, consisting of article search, article screening and data analysis. Relevant	This article provides an overview of state-of-the-art technologies used to enhance

<p><b>THE-ART TECHNOLOGIES FOR SECOND AND FOREIGN LANGUAGE LEARNING. COMPUTER ASSISTED LANGUAGE LEARNING, 1-47.</b></p>			<p>publications in 10 recognized journals were selected, resulting in 57 articles for further analysis.</p>	<p>language learning and promote effective learning.</p>
<p><b>LIM, M. H., &amp; ARYADOUST, V. (2021). A SCIENTOMETRIC REVIEW OF RESEARCH TRENDS IN COMPUTER-ASSISTED LANGUAGE LEARNING (1977–2020). COMPUTER ASSISTED LANGUAGE LEARNING, 1-26.</b></p>	<p>1977-2020</p>	<p>English</p>	<p>A retrospective scientometric approach generated a dataset of 3697 studies, published in 11 journals. A document co-citation analysis was used to identify the large research clusters. The impact of each publication was measured using the 'burst index' and 'betweenness centrality'. The content of the articles was analyzed to determine the focus and themes of each cluster.</p>	<p>This article explores what research trends there are in computer-assisted language learning (CALL) research between 1977 and 2020. The study focusses on which forms of technology-assisted language teaching are effective.</p>
<p><b>BAHARI, A. (2021). COMPUTER-MEDIATED FEEDBACK FOR L2 LEARNERS: CHALLENGES VERSUS AFFORDANCES. JOURNAL OF COMPUTER ASSISTED LEARNING, 37(1), 24-38.</b></p>	<p>2012-2020</p>	<p>English</p>	<p>Systematic literature review, in which several large databases were searched and 97 articles were selected on the basis of inclusion and exclusion criteria. The research results were structured into four domains, based on the four language skills.</p>	<p>This article maps the theoretical and pedagogical added values and challenges of computer-mediated feedback in blended and distance learning.</p>

- Single studies on blended learning for LESLLA learners

REFERENCE	COUNTRY	METHODOLOGY	RESEARCH TOPIC
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<p><b>LI, J., KAY, R., &amp; MARKOVICH, L. (2018). STUDENT ATTITUDES TOWARD BLENDED LEARNING IN ADULT LITERACY AND BASIC SKILLS COLLEGE PROGRAMS. CANADIAN JOURNAL OF LEARNING AND TECHNOLOGY/LA REVUE CANADIENNE DE L'APPRENTISSAGE ET DE LA TECHNOLOGIE, 44(2).</b></p>	<p>Canada</p>	<p>Survey among 149 students from 3 different schools from in adult basic education, supplemented with in-depth interviews with 37 students. The input was processed through a correlation and thematic analysis.</p>	<p>This article maps the attitudes and perceived success of low-literate adult learners in blended learning. It describes which factors contribute to individual differences in attitudes.</p>
<p><b>NEDUNGADI, P., DEVENPORT, K., SUTCLIFFE, R., &amp; RAMAN, R. (2020). TOWARDS A DIGITAL LEARNING ECOLOGY TO ADDRESS THE GRAND CHALLENGE IN ADULT LITERACY. INTERACTIVE LEARNING ENVIRONMENTS, 1-14.</b></p>	<p>USA</p>	<p>Literature study leads to the development of an educational app. This app was tested by 434 students. Monthly surveys on reading activity among 266 students. The data were supplemented with pre- and post-assessments and analysis of usage data.</p>	<p>This article provides a description of a theoretical framework for people with low literacy levels: Digital Learning Ecology. The authors investigate whether an app for English as L2 for people with low literacy skills, based on that theoretical framework, improves the learning of low literate adults.</p>

4. More recent studies found through the LESLLA community

REFERENCE	COUNTRY	DESCRIPTION
<b>BLACK, H., KEENAN, E. &amp; TUCKER, E. (2021). FLIPPING LEARNING WITH LESLLA LEARNERS. PRESENTATION AT THE 17TH ANNUAL LESLLA SYMPOSIUM.</b>	Australia	Description of an adult education center moving to a hybrid learning model, including the challenges faced when implementing flipped learning, how teachers have innovated and collaborated, and the ways in which we have supported LESLLA learners to develop their digital skills.
<b>HARRIS, J. &amp; ADEDUNJI, B. (2021). INTEGRATING DIGITAL LITERACY FOR ADULT LEARNERS. PRESENTATION AT THE 17TH ANNUAL LESLLA SYMPOSIUM.</b>	USA	Development and discussion of "The Digital Literacy Framework (DLF)" and "Instructor Implementation Guide" to provide the background and resources to support the integration of digital literacy into instructional activities. The authors discuss how the lesson plans can be used to deepen learning and competence with 21st century skills.
<b>MARSHALL, H. (2021). FOSTERING INTERCONNECTEDNESS: THE SYNCHRONOUS ONLINE FLIPPED LEARNING APPROACH - SOFLA®. PRESENTATION AT THE 17TH ANNUAL LESLLA SYMPOSIUM.</b>	USA	Discussion of "The Synchronous Online Flipped Learning Approach" or SOFLA®: a distance learning model that most closely replicates actual classroom teaching and includes structured, interactive, multimodal activities in an eight-step learning cycle, both asynchronous and synchronous. The author illustrates SOFLA® through a cultural artifacts collections project aligned with MALP®.
<b>SPRUCK WRIGLEY, H., VANEK, J. &amp; PARSHOTAM, M. (2021). EVERYBODY IN: MODELS AND STRATEGIES FOR DIGITAL EQUITY AND INCLUSION. PRESENTATION</b>	USA	Discussion of concepts, models and strategies to increase digital equity for LESLLA learners. Sections include Dimensions of Digital Equity, a new study on Digital Navigators, and program-based ideas for connecting adults new to literacy and new to technology to distanced learning.

**AT THE 17TH ANNUAL  
LESLLA SYMPOSIUM.**

**VANEK, J., HARRIS, K., &  
BELZER, A. (2020). DIGITAL  
LITERACY AND  
TECHNOLOGY INTEGRATION  
IN ADULT BASIC SKILLS  
EDUCATION: A REVIEW OF  
THE  
RESEARCH. PROLITERACY,  
JUNE.**

USA Study of the integration of digital technologies in adult basic education (ABE) to enhance digital literacy skills and learning outcomes. It highlights the challenges faced by adults in accessing broadband and digital devices. The paper emphasizes the importance of relevant technology use, content creation, sustained partnerships, effective professional development, and equitable access to foster digital literacy.

**VANEK, J., WEBBER, A.A.,  
KALLENBACH, S., SINGH, N.,  
UVIN, J., GONZÁLEZ, C. &  
CROWE, A. (2021).  
PROMISING PRACTICES FOR  
ADULT REMOTE ESOL. ED  
TECH CENTER WORLD  
EDUCATION**

USA Six-month landscape scan in the winter of 2021 to identify and describe promising remote ESOL1 program practices for adults that sprung up in response to the COVID-19 pandemic. 35 programs were selected for interviews and an analytical review process. The analysis makes visible several key implementation areas that buoy starting, scaling, improving, or enriching current implementation: Student recruitment and orientation; instructional platforms, materials, and approaches; student persistence strategies; student access to digital skills, devices, and internet; support for students' basic needs; professional development and support for staff; partnerships and leadership.

**VANEK, J., & KALLENBACH, S.  
(2021). INNOVATIVE  
REMOTE ESOL  
PROGRAMMING AND  
INSTRUCTION.  
PRESENTATION AT THE  
17TH ANNUAL LESLLA  
SYMPOSIUM**

USA The presentation highlights research describing innovations made in 34 programs offering remote ESOL instruction in response to the pandemic. Findings include descriptions of learners' needs and promising technology-rich instructional and support practices that underlaid student success. The presentation includes a discussion of exemplar case studies, models, and resources.



Dit hebben we  
**gedaan**





Dit hebben we  
**niet gedaan**



Wat kan jou

**HELPEN**

om online te leren?

# Hoe wil jij graag leren na corona?



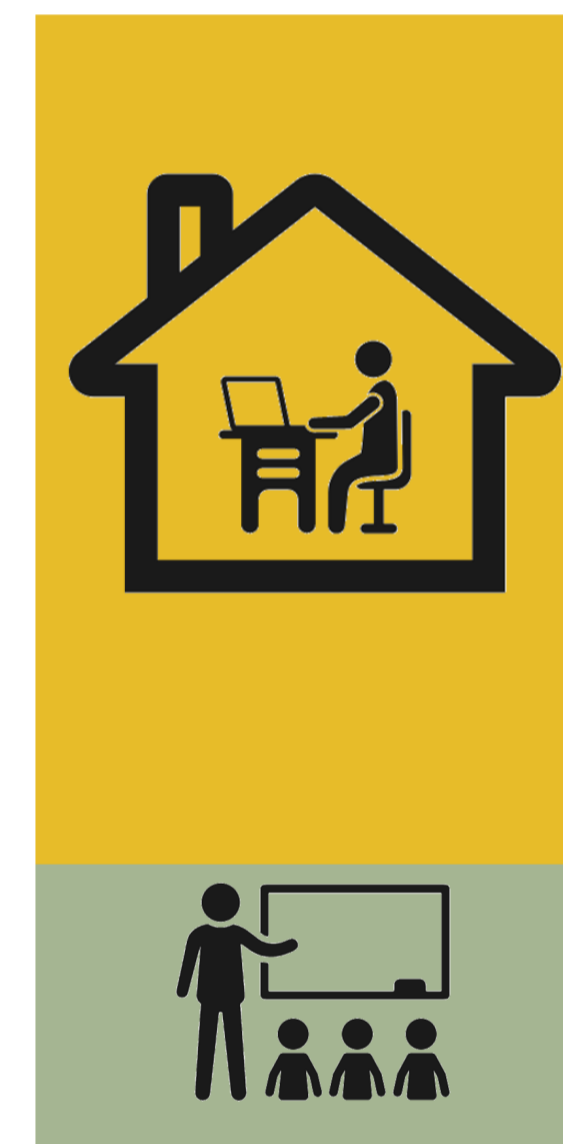
alles in de klas



veel in de klas  
een beetje thuis



half in de klas  
half thuis



veel thuis  
een beetje in de klas



alles thuis



# Hoe leer jij thuis het liefst?



alles in groep



een deel in groep  
een deel alleen



alles alleen

Bijlage 3: kaartjes leeractiviteiten voor werkvorm focusgroepen cursisten



Luisteren naar een uitleg van de leerkracht in de klas



Een filmpje met uitleg van de leerkracht bekijken



Samenwerken in een klein groepje in de klas



Samenwerken in een klein groepje online



Iets anders



Een discussie in de klas



Een discussie online



Een discussie via Whatsapp



Een tekst lezen in de klas



Een tekst lezen online



Oefeningen maken op papier in de klas



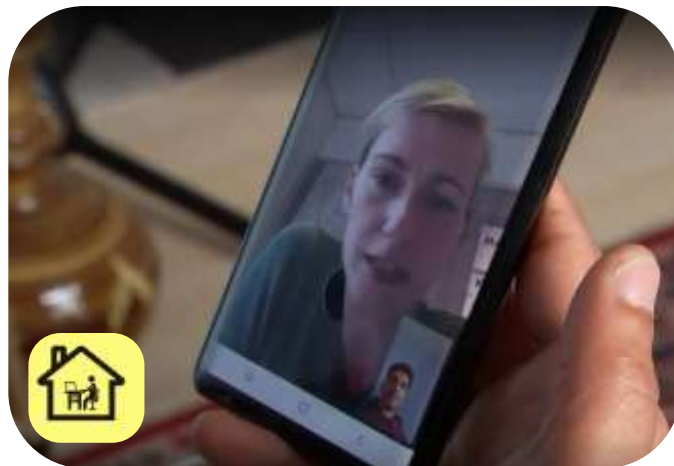
Online oefeningen maken



Oefeningen maken op  
papier thuis



Een gesprek oefenen  
in de klas



Een gesprek oefenen  
online





Een bezoek in het echt



Een online bezoek



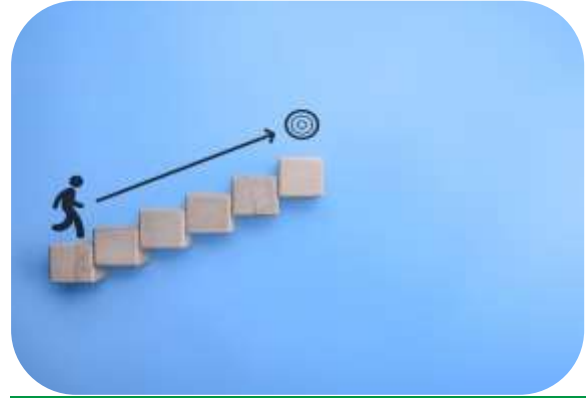
Schrijven oefenen in  
de klas



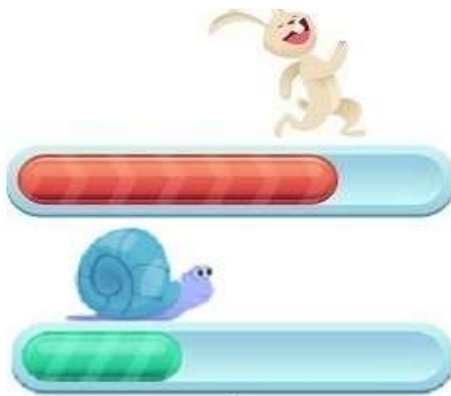
Schrijven oefenen  
online



Ik kan de les goed combineren met mijn gezin



Ik kan leren wat ik wil leren. Op mijn eigen tempo en niveau.



Ik leer meer en sneller



Ik leer werken met de computer en smartphone

BIJLAGE 4: kaartjes meerwaarden focusgroepen cursisten



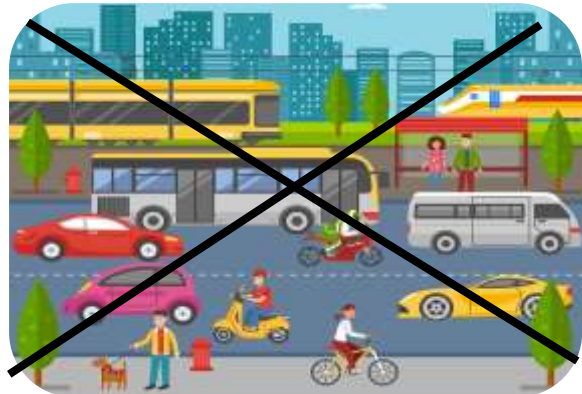
Ik leer beter plannen



Ik heb meer contact met de andere cursisten tussen de



Ik kan de les goed combineren met mijn werk



Ik moet niet naar de klas komen



Ik heb meer contact  
met de leerkracht  
tussen de lessen



Iets anders?



Ik heb geen goede  
smartphone tablet  
of laptop



Ik heb geen goed  
internet



Ik kan thuis niet  
rustig werken



Ik kan mij niet goed  
concentreren



Ik kan niet goed plannen



Ik mis het contact met de andere cursisten



Ik kan niet goed met de computer werken



Ik krijg te weinig hulp van de leerkracht



Ik krijg er stress van



Ik stel mijn schoolwerk uit



Ik word er moe van



iets anders?



Ik voel mij alleen



Ik heb te weinig structuur in mijn dag



Spreeken oefenen  
gaat beter in de klas





Ik wil de online taken op school maken



Ik wil mijn leerkracht kunnen contacteren als ik thuis leer



Ik wil een computer, tablet, internet... gebruiken van de school



Ik wil mijn medecursisten kunnen contacteren als ik thuis werk



Nog oplossingen?