



Received: February 14, 2026
Accepted: March 22, 2026
Available online: March 25, 2026

In Sook Jeong

Senior Teacher
Kimyo International University in Tashkent
Tashkent, Uzbekistan
E-mail: insuk5609@nate.com
ORCID iD: 0009-0009-4037-3745

A PILOT STUDY ON COMPUTER- ASSISTED LANGUAGE LEARNING- BASED INSTRUCTION OF KOREAN IDIOMS

ABSTRACT

This pilot study investigates the effectiveness of computer-assisted language learning (CALL) in teaching Korean idioms to learners of Korean as a foreign language. Due to their figurative meanings and strong cultural grounding, Korean idiomatic expressions often pose considerable challenges for language learners, particularly in terms of accurate comprehension and appropriate use in context.

Traditional instructional approaches may be limited in addressing these difficulties, which highlights the need for innovative teaching methods. To respond to this pedagogical challenge, a CALL-based instructional approach was specifically designed and implemented in this study. The participants consisted of twelve intermediate-level learners of Korean who participated in CALL-mediated idiom learning activities over a short instructional period. The instructional design incorporated multimodal input, interactive exercises, and self-paced learning components intended to facilitate deeper understanding and retention of idiomatic expressions.

Data were collected through pre- and post-instruction assessment tasks, analysis of learners' responses during instructional activities, and a post-study questionnaire examining learners' perceptions of the CALL-based learning experience. The analysis focused on changes in learners' comprehension and production of Korean idioms, as well as their attitudes toward CALL as an instructional tool.

In Suk Jeong

Katta o'qituvchi
Toshkent Kimyo xalqaro universiteti
Toshkent, O'zbekiston

KOREYS TILIDAGI IDIOMALARNI KOMPYUTER YORDAMIDA TIL O'RGANISH YONDASHUVI ASOSIDA O'QITISH BO'YICHA DASTLABKI SINOV TADQIQOTI

ANNOTATSIYA

Ushbu pilot (dastlabki sinov) tadqiqot koreys tilini chet tili sifatida o'rganuvchilarga koreys tilidagi idiomalarni o'qitishda kompyuter yordamida til o'rganish (KYTO') yondashuvining samaradorligini o'rganadi. Ko'chma ma'nolari hamda kuchli madaniy asosga ega bo'lgani sababli koreys tilidagi idiomatik ifodalar til o'rganuvchilar uchun, ayniqsa, ularni to'g'ri tushunish va nutqiy vaziyatda mos qo'llash jihatidan sezilarli qiyinchiliklar tug'diradi.

An'anaviy o'qitish yondashuvlari ushbu muammolarni bartaraf etishda cheklangan bo'lishi mumkin, bu esa innovatsion o'qitish usullariga ehtiyoj mavjudligini ko'rsatadi. Mazkur pedagogik muammoga javoban, tadqiqot doirasida KYTO' yondashuvi asosidagi o'qitish yondashuvi maxsus ishlab chiqildi va amaliyotga tatbiq etildi. Ishtirokchilar qisqa muddatli ta'lim jarayonida KYTO' yondashuvi vositasida idioma o'rganish faoliyatida qatnashgan koreys tilini o'rta darajada biluvchi o'n ikki nafar tinglovchidan iborat bo'ldi. Ta'lim dizayniga idiomatik ifodalarni chuqurroq anglash va esda saqlashni ta'minlash maqsadida multimodal materiallar, interaktiv mashqlar hamda mustaqil sur'atda o'rganish komponentlari kiritildi.

Ma'lumotlar o'qitishdan oldingi va keyingi baholash topshiriqlari, ta'lim faoliyati jarayonidagi talabalar javoblari tahlili hamda KYTO' yondashuvi asosidagi o'rganish tajribasi yuzasidan talabalar fikrlarini aniqlovchi yakuniy so'rovnomaga orqali yig'ildi. Tahlil talabalarning

The findings indicate that the CALL-based instructional approach had a positive effect on learners' understanding and use of Korean idioms. Participants demonstrated improved performance in post-instruction tasks and reported increased engagement and confidence in idiom learning. Learners also expressed favorable perceptions of the multimodal, interactive, and self-paced features of the CALL environment. However, given the small sample size and exploratory nature of this pilot study, the results should be interpreted with caution.

Overall, this study suggests that CALL has considerable potential as an effective supplementary tool for teaching Korean idioms and offers pedagogical implications for future large-scale and experimental research on technology-assisted idiom instruction.

Key words: Korean idioms, computer-assisted language learning, technology-enhanced language learning, idiom instruction, multimodal learning, interactive learning environment, self-paced learning, Korean, learner perception, pilot study.

koreys tilidagi idiomalarni tushunishi va qo'llashidagi o'zgarishlar, shuningdek, KYTO' yondashuviga o'qitish vositasi sifatidagi munosabatiga qaratildi.

Natijalar KYTO' yondashuvi asosidagi o'qitish yondashuvi talabalarning koreys idiomalarini tushunishi va qo'llashiga ijobiy ta'sir ko'rsatganini ko'rsatdi. Ishtirokchilar yakuniy topshiriqlarda yaxshiroq natija ko'rsatdilar hamda idiomalarni o'rganishda qiziqish va ishonch ortganini bildirdilar. Shuningdek, ular KYTO' muhitining multimodal, interaktiv va mustaqil sur'atda o'rganishga imkon beruvchi xususiyatlarini ijobiy baholadilar. Biroq ishtirokchilar sonining kamligi hamda ushbu pilot tadqiqotning izlanish xususiyatiga ega ekanligini hisobga olgan holda olingan natijalarni ehtiyotkorlik bilan talqin qilish lozim.

Umuman olganda, mazkur tadqiqot KYTO' yondashuvi koreys idiomalarini o'qitishda samarali qo'shimcha vosita bo'lish imkoniyatiga ega ekanini ko'rsatadi hamda texnologiya yordamida idiomalarni o'qitish bo'yicha kelgusidagi keng ko'lamli va eksperimental tadqiqotlar uchun pedagogik xulosalarni taqdim etadi.

Kalit so'zlar: koreys tilidagi idiomalar, kompyuter yordamida til o'rganish, texnologiya asosida til o'rganish, idiomalarni o'qitish, multimodal o'rganish, interaktiv ta'lim muhiti, mustaqil sur'atda o'rganish, koreys tili, o'quvchi qarashi, pilot tadqiqot.

INTRODUCTION

Idiomatic expressions constitute an important component of communicative competence in second and foreign language learning. The ability to comprehend and appropriately use idioms allows learners to engage more naturally in authentic communication, and research on formulaic language has long argued that fluent language use depends partly on the ability to access prefabricated expressions [Pawley & Syder, 1983; Nattinger & DeCarrico, 1992]. However, idioms often pose considerable challenges for language learners due to their figurative meanings, cultural specificity, and strong dependence on contextual and pragmatic factors. Previous studies have noted that idiomatic meanings are often not directly inferable from constituent words, which makes idiom learning particularly demanding for second language learners [Boers & Lindstromberg, 2012; Cooper, 1999]. These challenges are particularly evident in the learning of Korean as a foreign language, where idiomatic expressions frequently diverge from their literal meanings.

In many foreign language education contexts, idiom instruction tends to receive relatively limited attention compared to grammar and general vocabulary. As a result,

idiomatic expressions are often introduced sporadically or postponed to advanced levels of instruction. This tendency can create a gap between learners' grammatical knowledge and their ability to communicate naturally in real-world situations. Research on vocabulary and formulaic language development has shown that such gaps may persist even when learners demonstrate high levels of grammatical accuracy [Nation, 2013; Schmitt, 2004]. In Korean language education, this gap is particularly evident, as learners may achieve a high level of syntactic accuracy while still experiencing difficulty understanding everyday expressions used by native speakers.

Previous research has shown that both teachers and learners perceive idiom instruction as a difficult area of language teaching and learning. Teachers often report limited instructional time, insufficient teaching materials, and uncertainty regarding effective instructional approaches, while learners frequently express difficulty in understanding idiomatic meanings and using idioms appropriately in context. Studies on idiom learning have consistently indicated that learners tend to avoid idiomatic expressions in productive language use due to uncertainty about pragmatic appropriateness [Laufer, 2000; Irujo, 1986]. These findings suggest a need for instructional approaches that can support learners' idiom comprehension and usage more effectively.

In recent years, Computer-Assisted Language Learning (CALL) has been recognized as a promising approach for addressing challenges in idiom instruction. CALL environments provide opportunities for presenting idiomatic expressions through multimedia input, contextualized examples, and interactive activities. Such features are particularly suitable for idiom learning, as they can support repeated exposure, contextual inference, and learner engagement [Chapelle, 2001; Levy, 1997]. In the Korean language education context, scholarship has also noted the growing relevance of CALL for Korean teaching and learning resources and practices [Son, 2010].

Despite growing interest in CALL-based idiom instruction, empirical studies examining its instructional effects in Korean language education remain limited. Many existing studies have focused on theoretical discussions or learner perceptions, while fewer studies have investigated the actual impact of CALL-based instruction on learners' idiom comprehension and usage through empirical data [Dörnyei & Taguchi, 2010; Mackey & Gass, 2022]. From a methodological perspective, exploratory empirical studies play an important role in identifying instructional trends and informing subsequent large-scale research [Ellis, 2008; Ortega, 2009].

The present study addresses this gap by conducting a pilot empirical investigation of CALL-based idiom instruction for learners of Korean as a foreign language. Specifically, the study examines changes in learners' idiom comprehension and usage following a short-term CALL-based instructional intervention, as well as learners' perceptions of the instructional approach.

The study is guided by the following research questions:

1. *Does CALL-based idiom instruction improve learners' comprehension of Korean idiomatic expressions?*

2. *Does CALL-based instruction support learners' ability to use idiomatic expressions appropriately?*

3. *How do learners perceive CALL-based idiom instruction?*

Literature review

Challenges in idiom learning

Idioms have long been recognized as a challenging aspect of second language acquisition. Unlike literal expressions, idioms often convey meanings that cannot be easily inferred from their constituent words, which makes them difficult for language learners to interpret accurately. Research on figurative language has emphasized that the semantic opacity of idioms poses a fundamental obstacle to comprehension, particularly for non-native speakers [Boers & Lindstromberg, 2012; Cooper, 1999]. As a result, learners frequently rely on literal interpretations, which can lead to misunderstanding or inappropriate usage.

In addition to semantic opacity, idiomatic expressions are closely tied to cultural knowledge and pragmatic conventions. Studies have shown that successful idiom comprehension often requires familiarity with sociocultural contexts and discourse practices that may not be explicitly taught in language classrooms [Boers et al., 2004a]. This cultural embeddedness further complicates the learning process for foreign language learners, who may lack sufficient exposure to authentic language use.

Empirical studies on idiom learning have demonstrated that even learners with relatively high grammatical proficiency may struggle to comprehend and produce idiomatic expressions accurately. According to I.S.P. Nation, learners' mastery of grammatical structures does not necessarily translate into command of formulaic and idiomatic language [Nation, 2013]. Related work on formulaic sequences similarly argues that competence involves more than knowledge of isolated words and rules [Schmitt & Carter, 2004; Schmitt, 2004]. Research has also indicated that learners often experience difficulty determining when and how idioms can be used appropriately in context [Laufer, 2000; Irujo, 1986].

As a consequence of these challenges, learners tend to avoid idiomatic expressions in spontaneous communication. Avoidance strategies have been widely reported in studies of second language idiom use, as learners perceive idioms as risky due to uncertainty about pragmatic appropriateness and cross-linguistic mismatch [Laufer, 2000; Irujo, 1986]. These findings suggest that idiom learning requires instructional support that goes beyond definition-based explanations and memorization, and instead emphasizes contextualized input, guided practice, and pragmatic awareness.

CALL and idiom instruction

CALL environments offer affordances that are well suited to addressing the challenges of idiom learning. Through the use of multimedia resources such as video, audio, and images, CALL can present idiomatic expressions in rich and meaningful contexts. Research in CALL has emphasized that multimodal input and interaction can facilitate meaning construction by providing visual and auditory cues that support

comprehension [Chapelle, 2001; Levy, 1997]. In idiom instruction specifically, CALL has been shown to support learning when practice conditions (e.g., intensity, modality) and idiom properties are considered in task design [Cucchiarini et al., 2022].

Previous studies have suggested that CALL-based instruction can enhance learner engagement and facilitate vocabulary and phraseological learning. Studies on technology-mediated vocabulary instruction have shown that repeated exposure and interactive practice can promote retention and deeper processing of lexical items [Nation, 2013; Hulstijn, 2001]. In idiom learning, providing rich context is particularly important because contextual cues can reduce reliance on literal interpretation and support figurative inference [Asl, 2013; Boers & Lindstromberg, 2012].

However, much of the existing research on CALL-based idiom instruction has focused on learner perceptions or short-term outcomes. Questionnaire-based studies have reported positive learner attitudes toward multimedia instruction, but have provided limited evidence regarding actual changes in idiom comprehension and usage [Dörnyei & Taguchi, 2010]. This suggests a need for empirical studies that combine performance measures with perception data, using careful design and analysis procedures [Dörnyei, 2007; Mackey & Gass, 2022].

Empirical studies on idiom instruction

Empirical research on idiom instruction has employed a variety of instructional approaches, including contextualized input, explicit explanation, and practice-based activities. Findings generally indicate that contextualized instruction is more effective than isolated instruction for supporting idiom comprehension, as learners are better able to infer figurative meanings when idioms are embedded in meaningful discourse [Asl, 2013; Boers & Lindstromberg, 2012]. Additionally, scholarship in phraseology argues that attention to recurring patterns and “idiom-like” selections contributes to more native-like fluency [Pawley & Syder, 1983; Sinclair, 1991].

A further line of research has investigated instructional techniques for improving idiom learnability. Studies have reported that etymological elaboration and culturally grounded explanation can support remembering figurative meanings [Boers et al., 2004b; Boers et al., 2007]. In classroom practice, pedagogical guidance for teaching idioms has also emphasized the role of meaningful context, noticing, and practice opportunities [Cooper, 1998].

In addition to comprehension-focused instruction, studies have highlighted the importance of providing learners with opportunities for controlled practice to support the development of productive idiomatic competence. Research on vocabulary and formulaic language learning has demonstrated that productive knowledge develops more slowly than receptive knowledge and requires intentional practice [Nation, 2013; Hulstijn, 2001]. Controlled production tasks have therefore been recommended as a means of examining learners’ emerging ability to use idioms appropriately in context [Bachman & Palmer, 1996]. Related work in second language processing has also argued that targeted instructional sequencing can be pedagogically relevant for developing idiom competence [Kim & Nam, 2017].

Research gap and rationale for the present study

The review of previous studies indicates that idiom learning remains a challenging area of language education and that CALL-based approaches offer promising instructional possibilities. Research in CALL has consistently highlighted the potential of technology-mediated environments to provide rich input, repeated exposure, and learner-centered practice opportunities [Chapelle, 2001; Levy, 1997]. These features align well with the instructional needs associated with idiom learning, particularly the need for contextualized and multimodal input [Asl, 2013; Cucchiaroni et al., 2022].

At the same time, existing research reveals limitations in the empirical investigation of CALL-based idiom instruction. Many studies have focused primarily on learners' attitudes or perceptions of digital tools, rather than on measurable changes in idiom comprehension and usage [Dörnyei & Taguchi, 2010]. While perception-based studies provide valuable insights, they do not fully capture the instructional impact of CALL interventions on learners' linguistic development. Methodologically, there remains a need for carefully designed pilot studies that combine multiple sources of data and that can inform subsequent larger-scale investigations [Ellis, 2008; Ortega, 2009; Mackey & Gass, 2022].

Research on vocabulary and phraseological learning has also suggested that receptive and productive dimensions of learning should be examined separately, as gains in comprehension do not automatically lead to gains in usage [Nation, 2013; Schmitt, 2004]. This methodological consideration underscores the importance of employing multiple instruments, such as comprehension tests and production tasks, in empirical studies of idiom instruction [Bachman & Palmer, 1996].

Empirical approaches to idiom instruction and measurement

Empirical research on idiom instruction has employed a variety of methodological approaches to examine learners' development of idiomatic competence. Among these, pre-test and post-test designs have been widely used to capture changes in learners' receptive knowledge following instructional interventions [Campbell & Stanley, 1963; Cook & Campbell, 1979]. In the context of idiom learning, such designs are particularly useful for identifying learners' ability to move beyond literal interpretation and recognize figurative meanings presented in context [Cooper, 1999].

Previous studies have also emphasized the importance of distinguishing between receptive and productive aspects of idiomatic competence. Successful idiom comprehension does not necessarily guarantee appropriate idiom use, as productive competence requires additional pragmatic and contextual control [Boers & Lindstromberg, 2012; Schmitt & Carter, 2004]. Production tasks have been used to examine learners' developing ability to use idiomatic expressions in context [Bachman & Palmer, 1996]. Because productive use often lags behind comprehension, it may require sustained and intentional practice [Hulstijn, 2001; Nation, 2013].

In addition to performance-based measures, learner questionnaires have been widely used in empirical studies on CALL-based instruction. In CALL research, learner perceptions are considered an important source of data, and combining performance

data with perception data can support stronger inferences about how instructional design features influence learning [Chapelle, 2001; Dörnyei, 2007]. Questionnaire data can thus complement test results by providing insight into learners' experiences with technology-mediated instruction [Dörnyei & Taguchi, 2010].

Taken together, previous research supports the use of a mixed set of research instruments – including comprehension tests, production tasks, and learner questionnaires – in empirical investigations of idiom instruction, especially in small-scale studies designed to generate preliminary evidence [Ellis, 2008; Ortega, 2009; Mackey & Gass, 2022].

METHODS

This study employed a pilot empirical design to explore the effects of CALL-based idiom instruction on learners' comprehension, usage, and perceptions of Korean idiomatic expressions. Given the exploratory nature of the study and the limited instructional period, a small-scale implementation was conducted in an authentic instructional setting, which is considered appropriate for preliminary instructional research using quasi-experimental reasoning [Cook & Campbell, 1979; Campbell & Stanley, 1963].

Participants

The participants were 12 learners of Korean as a foreign language enrolled in an intermediate-level Korean language course at a university language program. The participants represented diverse linguistic backgrounds and had studied Korean for approximately one to two years. All participants had previously completed foundational courses in Korean grammar and vocabulary but reported limited systematic exposure to idiomatic expressions in classroom instruction.

Participation in the study was voluntary, and learners were informed of the purpose and procedures of the research prior to data collection. To ensure consistency in instructional experience, all participants completed the same CALL-based instructional activities during the intervention period.

Research Design. This study adopted a one-group pre-test and post-test design to examine changes in learners' idiom comprehension and usage following CALL-based instruction. No control group was employed due to the exploratory nature of the study and the limited number of available participants. One-group pre-test and post-test designs are commonly used in pilot and exploratory studies to identify instructional trends and preliminary effects, even though they do not allow for strong causal claims [Campbell & Stanley, 1963; Cook & Campbell, 1979]. In addition, design decisions and measurement choices were guided by established applied linguistics research methodology recommendations [Mackey & Gass, 2022; Ortega, 2009].

Data collection procedures

Data were collected at three stages: pre-test, post-test, and post-instruction questionnaire. All data were collected during regular class sessions or through the online learning platform to minimize disruption to instructional routines.

Instructional procedure

The CALL-based instructional intervention consisted of multimedia materials and interactive tasks designed to present Korean idiomatic expressions in meaningful contexts. Instruction was delivered through an online learning platform and included short video clips, contextualized dialogues, and task-based activities, reflecting principles widely discussed in CALL research [Chapelle, 2001; Levy, 1997]. Task sequencing and the balance between input and practice were designed to promote learning conditions associated with vocabulary/phraseological development [Nation, 2013; Hulstijn, 2001] and with evidence from CALL-based idiom learning studies [Cucchiarini et al., 2022].

Building on the design principles outlined above, this section presents a stage-based instructional framework for CALL-based idiom instruction. Table 1 summarizes the proposed protocol, specifying instructional goals, core activities, teacher roles, learner outputs, and formative assessment foci (See Table 1):

Table 1. Stage-by-stage instructional protocol for CALL-based Korean idiom instruction

Stage	Instructional goal	Core activities (CALL-based)	Teacher role	Learner output	Formative assessment focus
Stage 1. Contextual exposure	introduce target idioms through rich and meaningful contexts	<ul style="list-style-type: none"> • short video clips or dialogues containing target idioms • multimodal input (audio, visuals, subtitles) • initial noticing tasks 	<ul style="list-style-type: none"> • select contextually appropriate materials • control input difficulty and pacing 	<ul style="list-style-type: none"> • initial recognition of idioms in context • noticing notes (keywords, situational cues) 	<ul style="list-style-type: none"> • attention to context • recognition of idioms without explicit explanation
Stage 2. Meaning inference	support learners' inference of figurative meaning	<ul style="list-style-type: none"> • guided questions prompting inference from context • multiple-choice or matching tasks linking context to meaning 	<ul style="list-style-type: none"> • scaffold inference process • prompt justification of meaning choices 	<ul style="list-style-type: none"> • hypothesized idiomatic meanings • brief explanations of inference 	<ul style="list-style-type: none"> • accuracy of inferred meaning • use of contextual evidence
Stage 3. Guided comprehension practice	consolidate understanding through controlled practice	<ul style="list-style-type: none"> • comprehension checks (true/false, cloze tasks) • comparison of literal vs. figurative meanings 	<ul style="list-style-type: none"> • provide corrective feedback • clarify semantic and pragmatic constraints 	<ul style="list-style-type: none"> • correct identification of figurative meanings 	<ul style="list-style-type: none"> • stability of comprehension • reduction of literal misinterpretation

Stage 4. Controlled production	develop initial productive use of idioms	<ul style="list-style-type: none"> • sentence completion or short writing tasks • error detection and correction activities 	<ul style="list-style-type: none"> • model acceptable usage • guide learners toward appropriate forms 	<ul style="list-style-type: none"> • contextually appropriate sentences using idioms 	<ul style="list-style-type: none"> • appropriateness of use (not only grammaticality) • awareness of register and context
Stage 5. Reflection and pragmatic awareness	enhance awareness of usage constraints and cultural nuances	<ul style="list-style-type: none"> • reflection prompts (when/why idioms are appropriate) • comparison of idiomatic vs. non-idiomatic alternatives 	<ul style="list-style-type: none"> • facilitate discussion • highlight pragmatic and cultural considerations 	<ul style="list-style-type: none"> • reflective comments on idiom use • justification of usage choices 	<ul style="list-style-type: none"> • metapragmatic awareness • ability to explain appropriateness
Stage 6. Recycling and review (optional)	promote retention and flexible reuse	<ul style="list-style-type: none"> • brief review tasks across sessions • recognition and production in new contexts 	<ul style="list-style-type: none"> • select items for recycling • adjust task difficulty 	<ul style="list-style-type: none"> • improved fluency and confidence 	<ul style="list-style-type: none"> • retention and transfer across contexts

Each week, learners participated in two instructional sessions focusing on a small set of target Korean idioms. Instruction followed a stage-based protocol, as summarized in Table 1. In Stage 1 (Contextual Exposure), learners encountered the target idioms through multimodal materials (e.g., short video clips and contextualized dialogues) and completed brief noticing tasks to identify contextual cues. In Stage 2 (Meaning Inference), learners inferred figurative meanings using guided questions and meaning-selection tasks, and they provided brief justifications based on contextual evidence. In Stage 3 (Guided Comprehension Practice), learners consolidated understanding through controlled comprehension checks and activities comparing literal and figurative meanings, with corrective feedback targeting semantic and pragmatic constraints. In Stage 4 (Controlled Production), learners practiced initial idiom use through sentence-completion or short writing tasks as well as error detection and correction, with feedback emphasizing contextual and pragmatic appropriateness rather than grammaticality alone. In Stage 5 (Reflection and Pragmatic Awareness), learners engaged in guided reflection on when and why an idiom is appropriate, including comparisons with non-idiomatic alternatives and attention to register and cultural nuance. Finally, Stage 6 (Recycling and Review; optional) was incorporated across sessions through brief review tasks that required recognition and production of the same idioms in new contexts to support retention and flexible transfer.

Overall, the sequence was designed to promote repeated exposure and gradual movement from comprehension to initial production, consistent with research on receptive versus productive development [Nation, 2013; Schmitt, 2004], and to maintain rich contextual support, which is known to facilitate idiom learning [Asl, 2013; Cooper, 1998].

Research instruments

Three instruments were employed to collect data on learners' idiomatic

development and perceptions. First, an idiom comprehension test was administered as both a pre-test and post-test to assess receptive knowledge. Second, a controlled production task required learners to use selected idiomatic expressions in contextually appropriate sentences. The use of both receptive and productive measures reflects the view that different assessment instruments capture different dimensions of language ability [Bachman & Palmer, 1996]. Third, a learner questionnaire was administered after the instructional intervention to examine learners' perceptions of CALL-based idiom instruction, following established guidance on questionnaire construction and interpretation [Dörnyei, 2007; Dörnyei & Taguchi, 2010].

To ensure consistent scoring across tasks, responses were evaluated using the analytic rubric summarized in Table 2. For the comprehension test, item-level meaning-accuracy ratings were assigned and then aggregated to obtain each learner's overall score (See Table 2):

Table 2. Analytic scoring rubric for idiom comprehension and production tasks

Dimension	Description	Scale	Applied to
Meaning accuracy	accuracy of understanding/expressing the figurative meaning in context	0–2 (2=correct; 1=partially correct; 0=incorrect/literal)	comprehension & production
Contextual appropriateness	fit to situational context and communicative intent	0–2 (2=fully appropriate; 1=minor mismatch; 0=inappropriate/avoided)	production
Pragmatic / Register control	register, politeness, and discourse suitability	0–2 (2=appropriate; 1=minor issues; 0=inappropriate)	production
Justification (optional)	ability to explain why the idiom is appropriate	0–1 (1=clear; 0=none/incorrect)	production (optional)

Total scoring procedure. *Comprehension scores were obtained by summing item-level ratings for meaning accuracy (0–2) across the comprehension test items. Production responses were rated analytically for meaning accuracy, contextual appropriateness, and pragmatic/register control (0–2 each), with an optional justification component (0–1), and then aggregated.*

Note. *The rubric was designed to capture both receptive and productive dimensions of idiom learning, with particular attention to contextual and pragmatic appropriateness.*

Data analysis

Responses were analyzed descriptively based on the rubric categories presented in Table 2. In addition, the stage-based instructional protocol summarized in Table 1 served as an analytical framework for interpreting learners' responses across instructional stages. Accordingly, results are reported descriptively by summarizing patterns in learners' responses rather than through inferential statistics.

RESULTS

Idiom comprehension results

Idiom comprehension was assessed using an analytic scoring rubric focusing on meaning accuracy and context-based interpretation (See Table 2). Overall, learners demonstrated clearer understanding of the target idioms after the CALL-based instructional intervention. Prior to the intervention, many responses reflected reliance on literal interpretations or incomplete meaning construction, particularly when contextual cues were not explicitly attended to. Following instruction, learners more frequently interpreted idioms figuratively and showed greater ability to use contextual information to justify their interpretations.

Item-level patterns suggested that improvement was most evident when idioms were presented within situationally rich contexts (e.g., short dialogues or narrative excerpts). In contrast, items requiring more abstract interpretation with limited contextual support remained challenging for some learners. Taken together, the results indicate that CALL-based idiom instruction was associated with more context-sensitive comprehension of idiomatic meanings, although difficulties persisted for certain items and learners.

Idiom usage results

Learners' ability to use Korean idiomatic expressions was examined through a controlled production task evaluated using the analytic rubric presented in Table 2. Prior to the instructional intervention, many learners either avoided using idiomatic expressions or relied on literal paraphrases, even when the communicative context clearly favored idiomatic usage. When idioms were attempted, responses frequently exhibited pragmatic mismatch, such as inappropriate register or insufficient alignment with the intended communicative purpose.

Following the CALL-based instructional intervention, learners more frequently attempted to use the target idioms in production tasks and demonstrated increased sensitivity to contextual requirements. Post-instruction responses more often reflected appropriate selection of idiomatic expressions and improved alignment between idiomatic meaning and situational context. In addition, learners showed greater willingness to experiment with idiomatic usage rather than relying exclusively on non-idiomatic alternatives.

Despite these positive tendencies, some difficulties persisted. Pragmatic constraints, including register control and situational appropriateness, continued to pose challenges for certain learners. In particular, overgeneralization of idiomatic expressions and uncertainty about usage boundaries were observed in some responses. These patterns suggest that while CALL-based instruction supported learners' initial development of productive idiomatic competence, further instructional time and repeated practice may be necessary for more stable and flexible idiom use.

Learner perceptions of CALL-based idiom instruction

Learner perceptions of the CALL-based idiom instruction were examined through a post-instruction questionnaire. Overall, learners reported positive attitudes

toward the instructional approach. A majority of participants indicated that multimedia materials, including videos and contextualized dialogues, helped them understand idiomatic meanings more clearly than traditional text-based explanations.

Learners also reported that interactive CALL activities increased their engagement and motivation during idiom learning. Repeated exposure to idioms across different tasks was perceived as particularly helpful for remembering expressions and recognizing them in new contexts. Several participants noted that the ability to review materials at their own pace contributed to a more comfortable learning experience.

At the same time, some learners expressed a need for additional practice opportunities and more explicit explanations of usage constraints. In particular, learners reported uncertainty about when idioms could be used appropriately in real communicative situations. These responses highlight the importance of balancing implicit, context-based instruction with guided explanation and feedback in CALL-based idiom instruction.

DISCUSSION

Interpretation of idiom comprehension results

The comprehension findings suggest that the CALL-based instructional sequence supported learners' movement toward more figurative and context-sensitive interpretation of Korean idioms. In line with previous research, learners' pre-instruction responses often reflected literal processing or incomplete meaning construction, which is commonly attributed to the semantic opacity of idioms and limited access to relevant contextual cues [Boers & Lindstromberg, 2012; Cooper, 1999]. After the intervention, learners more frequently attended to contextual information and provided interpretations that were better aligned with figurative meanings, consistent with claims that contextualized input facilitates idiom learning [Asl, 2013; Cooper, 1998]. From a CALL perspective, the multimodal presentation of idioms may have offered additional cues (e.g., visual and auditory information) that supported meaning construction and reduced reliance on word-by-word interpretation [Chapelle, 2001; Levy, 1997]. Importantly, improvement appeared most visible when idioms were embedded in situationally rich contexts, whereas items with limited contextual support remained challenging, highlighting the continued importance of context quality and task design in technology-mediated idiom instruction.

Interpretation of idiom usage results

The production results indicate that productive idiomatic competence develops gradually and may remain fragile even when learners show clearer comprehension. Before instruction, learners often avoided idioms or relied on non-idiomatic paraphrases, reflecting the well-documented tendency for L2 learners to perceive idioms as risky in production due to uncertainty about pragmatic constraints [Irujo, 1986; Laufer, 2000]. Following instruction, learners showed greater willingness to attempt idioms and demonstrated improved alignment between idiomatic meaning and situational context. This pattern is also compatible with task-based accounts of vocabulary learning, which emphasize that productive development depends

on learners' involvement conditions and repeated opportunities for meaningful use [Laufer & Hulstijn, 2001]. More generally, this pattern aligns with research suggesting that productive knowledge requires intentional practice and repeated opportunities for controlled output [Hulstijn, 2001; Nation, 2013]. At the same time, persistent issues – such as register mismatch and overgeneralization – underscore that appropriate idiom use depends not only on form – meaning mapping but also on pragmatic control and sensitivity to usage boundaries [Boers & Lindstromberg, 2012; Schmitt & Carter, 2004]. These observations support pedagogical recommendations that idiom instruction should include explicit attention to appropriateness conditions and guided feedback, particularly in stages that require controlled production and reflective practice.

Interpretation of learner perceptions of CALL-based idiom instruction

Learners' perceptions were generally favorable, particularly regarding the usefulness of multimedia input, interactive activities, and opportunities for self-paced review. Such responses align with CALL research emphasizing the pedagogical value of multimodal resources and learner-centered practice in technology-mediated environments [Chapelle, 2001; Levy, 1997]. In addition, learners' requests for more practice and clearer guidance on usage constraints are consistent with the broader finding that pragmatic appropriateness is a central difficulty in idiom learning and may require more sustained instructional attention than short-term interventions can provide [Laufer, 2000; Nation, 2013]. Taken together, the perception data complement the performance-based patterns by suggesting that learners not only engaged with the CALL-based materials but also recognized the need for additional support in moving from comprehension to stable, context-appropriate production.

Pedagogical implications and limitations

Pedagogically, the findings suggest that CALL-based idiom instruction can be strengthened by (a) ensuring idioms are introduced through contextually rich, authentic-like scenarios, (b) sequencing tasks to move learners from noticing and inference to controlled production, and (c) incorporating explicit reflection on pragmatic constraints such as register, discourse suitability, and appropriateness conditions. The analytic rubric used in this study (See Table 2) highlights the importance of evaluating idiom learning beyond meaning accuracy by attending to contextual and pragmatic dimensions, which can also inform classroom feedback practices.

Several limitations should be acknowledged. As a small-scale pilot study implemented over a short instructional period, the study does not support strong causal claims and should be interpreted as preliminary evidence identifying instructional tendencies and design considerations [Campbell & Stanley, 1963; Cook & Campbell, 1979; Ellis, 2008; Ortega, 2009; Mackey & Gass, 2022]. In addition, idiom learning is sensitive to idiom properties and the quality of contextual support; thus, some remaining difficulties may reflect item-level characteristics rather than instructional effects alone [Cucchiarini et al., 2022]. Future research may extend the present work through longer interventions, more varied idiom sets, and designs that allow for stronger comparisons and replication.

CONCLUSION

This pilot study examined CALL-based instruction for Korean idioms, focusing on learners' comprehension, production, and perceptions. Overall, learners' post-instruction responses showed a tendency toward more figurative and context-sensitive interpretation of idiomatic meanings, as well as increased willingness to attempt idioms in controlled production tasks. These tendencies suggest that contextualized and multimodal input can support idiom learning by facilitating meaning construction beyond literal processing. At the same time, persistent challenges related to pragmatic constraints, such as register and situational appropriateness, indicate that short-term CALL-based instruction may support initial development but may not be sufficient for stable and flexible idiom use, reflecting the gradual nature of productive idiomatic competence.

As an exploratory pilot implementation, the present study does not aim to make strong causal claims. Rather, it highlights pedagogically relevant design considerations for CALL-based idiom instruction, including the importance of providing contextually rich input, sequencing tasks from noticing and inference to guided practice and controlled production, and incorporating reflective activities that explicitly address pragmatic appropriateness. The analytic rubric employed in this study (Table 2) further underscores the value of evaluating idiom learning beyond meaning accuracy by attending to contextual and pragmatic dimensions, an approach that aligns with recent trends in research on formulaic language and language assessment.

Finally, consistent with methodological discussions in applied linguistics, the findings of this study should be interpreted as preliminary and primarily informative for future research design rather than as definitive evidence of instructional effectiveness. Future research may build on these initial observations through longer instructional periods, a wider range of idiom types and contexts, and research designs that allow for stronger comparisons and replication, thereby contributing to a more robust understanding of CALL-based approaches to Korean idiom instruction.

REFERENCES

1. Asl, F.M. (2013). The impact of context on learning idioms in EFL classes. *MEXTESOL Journal*, 37(1), 1–12.
2. Bachman, L.F., & Palmer, A.S. (1996). *Language testing in practice: Designing and developing useful language tests*. Oxford: Oxford University Press.
3. Boers, F., & Lindstromberg, S. (2012). Experimental and intervention studies on formulaic sequences in a second language. *Annual Review of Applied Linguistics*, 32, 83–110.
4. Boers, F., Demecheleer, M., & Eyckmans, J. (2004a). Cultural variation as a variable in comprehending and remembering figurative idioms. *European Journal of English Studies*, 8(3), 375–388. <https://doi.org/10.1080/1382557042000277449>.
5. Boers, F., Demecheleer, M., & Eyckmans, J. (2004b). Etymological elaboration as a strategy for learning figurative idioms. In P.Bogaards & B.Laufer (Eds.), *Vocabulary in a second language: Selection, acquisition, and testing* (pp. 53–78). Amsterdam: John Benjamins. <https://doi.org/10.1075/llt.10.07boe>.
6. Boers, F., Eyckmans, J., & Stengers, H. (2007). Presenting idioms with a touch of etymology: More than mere mnemonics? *Language Teaching Research*, 11(1), 43–60. <https://doi.org/10.1177/1362168806072460>.

7. Campbell, D.T., & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research*. Chicago: Rand McNally.
8. Chapelle, C.A. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing and research*. Cambridge: Cambridge University Press.
9. Cook, T.D., & Campbell, D.T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Boston: Houghton Mifflin.
10. Cooper, T.C. (1998). Teaching idioms. *Foreign Language Annals*, 31(2), 255–266. <https://doi.org/10.1111/j.1944-9720.1998.tb00572.x>.
11. Cooper, T.C. (1999). Processing of idioms by L2 learners of English. *TESOL Quarterly*, 33(2), 233–262. <https://doi.org/10.2307/3587719>.
12. Cucchiari, C., Hubers, F., & Strik, H. (2022). Learning L2 idioms in a CALL environment: The role of practice intensity, modality, and idiom properties. *Computer Assisted Language Learning*, 35, 863–891. <https://doi.org/10.1080/09588221.2020.1752734>.
13. Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.
14. Dörnyei, Z., & Taguchi, T. (2010). *Questionnaires in second language research: Construction, administration, and processing* (2nd ed.). New York: Routledge.
15. Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.
16. Hulstijn, J.H. (2001). Intentional and incidental second-language vocabulary learning: A reappraisal of elaboration, rehearsal and automaticity. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 258–286). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139524780.011>.
17. Irujo, S. (1986). Don't put your leg in your mouth: Transfer in the acquisition of idioms in a second language. *TESOL Quarterly*, 20(2), 287–304. <https://doi.org/10.2307/3586545>.
18. Kim, J.-E., & Nam, H. (2017). The pedagogical relevance of processing instruction in second language idiom acquisition. *International Review of Applied Linguistics in Language Teaching*, 55(2), 93–132.
19. Laufer, B. (2000). Avoidance of idioms in a second language: The effect of L1–L2 degree of similarity. *Studia Linguistica*, 54(2), 186–196. <https://doi.org/10.1111/1467-9582.00059>.
20. Laufer, B., & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22(1), 1–26. <https://doi.org/10.1093/applin/22.1.1>.
21. Levy, M. (1997). *Computer-assisted language learning: Context and conceptualization*. Oxford: Clarendon Press.
22. Mackey, A., & Gass, S.M. (2022). *Second language research: Methodology and design* (3rd ed.). New York: Routledge.
23. Nation, I.S.P. (2013). *Learning vocabulary in another language* (2nd ed.). Cambridge: Cambridge University Press.
24. Nattinger, J.R., & DeCarrico, J.S. (1992). *Lexical phrases and language teaching*. Oxford: Oxford University Press.
25. Ortega, L. (2009). *Understanding second language acquisition*. London: Routledge.
26. Pawley, A., & Syder, F.H. (1983). Two puzzles for linguistic theory: Nativelike selection and nativelike fluency. In J.C. Richards & R.W. Schmidt (Eds.), *Language and communication* (pp. 191–225). London: Routledge.
27. Schmitt, N. (Ed.). (2004). *Formulaic sequences: Acquisition, processing and use*. Amsterdam: John Benjamins.
28. Schmitt, N., & Carter, R. (2004). Formulaic sequences in action: An introduction. In N. Schmitt (Ed.), *Formulaic sequences: Acquisition, processing and use* (pp. 1–22). Amsterdam: John Benjamins.
29. Sinclair, J. (1991). *Corpus, concordance, collocation*. Oxford: Oxford University Press.
30. Son, J.-B. (2010). Korean language education and computer-assisted language learning: Research, practice and resources. *International Review of Korean Studies*, 7(1), 27–46.