

Tourism SMEs Service Quality Development through Basic Mandarin Literacy and Cross Cultural Communication

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Abstract

East Java Province has experienced a significant increase in tourist visits from China, but tourism SMEs still face three main problems: (1) non-translator staff are not able to communicate in basic Chinese, (2) the unavailability of contextual teaching materials that meet tourism needs, and (3) limited independent learning resources for sustainable competency development. This community service program was carried out in partnership with Lintas Karya Muda tourism SMEs. The approach applied was Participatory Action Research (PAR), a methodology that emphasizes equal partnerships and repetitive cycles between reflection and action. Through this approach, activities were carried out in three participatory phases: (1) Assessment Phase, which includes observation, in-depth interviews, and Focus Group Discussions (FGD) to identify needs and potentials collaboratively; (2) Intervention Phase (Action), in the form of training implementation tailored to the results of diagnosis; and (3) Development Phase (Reflection and Joint Creation), namely assistance in product development to ensure sustainability and empowerment. The proposed solution provides basic words training material in Chinese language and an interactive eBook with contextual knowledge, relevant vocabulary list, the native script (Chinese Characters), transcription into Chinese phonology symbols and says audibly for self-study. Anonymized Likert scale Questionnaire Evaluation revealed that 87.5% of participants strongly agree that e-book helps the learning process and high reliability was found (Cronbach's Alpha value of 0.89). This programmed directly contributes to SDG 4 (Quality Education) in fostering inclusive language skills and the promotion of SDG 8 (Decent Work and Economic Growth) through enhanced service capacity, quality interactions with tourists, and competitiveness of local tourism SMEs.

INTRODUCTION

East Java Province is one of the most popular tourism destinations in Indonesia, well known for its natural beauty, including Mount Bromo, Ijen Crater and Tumpak Sewu Waterfall. These sites have been established for hundreds of years, capturing the interest of local as well as foreign visitors (Alfianto et al., 2025; Haidir et al., 2021; Zurohman et al., 2021). In the realm of international tourism development, an interesting phenomenon in recent years has been the rise in Chinese tourists visiting East Java Province, as reported by credible national mass media in 2025. Tourists from China were listed as one of the most numerous groups visiting East Java, increasing in quantity to 8.93% from recorded data in May 2012, which was only 5.62%. This trend is congruent with Indonesia's national goal of attracting 2 million Chinese tourists by 2025 (Amaluddin, 2025; Rahmanita, 2025). This shift improves strategic space, especially for micro-small-medium enterprises (MSMEs) in the Travel and Tourism Service Sectors (Mukaffi & Haryanto, 2022). Aside from contributing to a substantial increase in the region's economic activity,

the influx of travellers into East Java has had a positive impact on the province's reputation as an international class tourism destination.

The increase in the number of Chinese tourists visiting East Java should be supported by improved service capacity among local entrepreneurs, including those managing tourism SMEs. What is less resourced is the skill of speaking Mandarin (Pradana, 2023; Saputra et al., 2025), which becomes the main language approached by Chinese tourists. In training, some SMEs (including with the help of staff interpreters) have been involved in such communications. However, direct interaction between tourists and service personnel, such as drivers, administrative staff, and field officers, should also be an integral part of the overall tourism experience (Syarofa et al., 2025). Limited proficiency in basic visitor-language communication among operational staff may restrict the warmth and openness expected in the service industry (Fajarsari et al., 2024). Therefore, improving basic Mandarin language competence among non-interpreter employees represents a strategic step toward building a more welcoming, adaptive, and tourist-satisfaction-oriented service ecosystem. So the main problem is that to increase the satisfaction of Chinese customers, it is necessary to provide maximum service, one of which is from Chinese or the customer's mother tongue. Unfortunately, the non-translator employees did not speak Chinese, and there was no platform that actively helped the participants. It is said to be active because the employees were already busy with their work. If they were not picked up, it would not be successful. So this training is an active effort to provide active and appropriate Chinese language learning.

Actually, efforts to improve the economy of SMEs through community service activities carried out by lecturers like this are not really new. Fakhriyyah et al. (2022) noted that, in businesses, partners are taught how to start using social media as a new weapon to improve their marketing. There is also a more common one that is finding alternative tourism around existing tourist attractions (Dimas et al., 2023). With the opening of the place, it is hoped that new sources of income will be found. There are other businesses as well (Suhendar et al., 2024), where here there is the keyword "awareness". Awareness of taxes from entrepreneurs in tourist attractions, with the hope that the taxes paid can increase the development of the tourist attractions themselves. The same thing is through education, where knowledge about digital payments is taught, so that it will be more in line with modern times (Triansyah et al., 2025). So, from some of the small examples above, the main outline that needs to be kept in mind is that each individual has the sensitivity to always help by finding the root of the problem and its solution or helping to find optimization from every point of view. However, despite the various community service models, there are still gaps in the efforts of initiatives that specifically address Chinese language communication barriers in tourism SMEs, so this program is the best solution, due to its focus on providing contextual (Adhimas et al., 2023) and needs-based language training to non-translator staff to directly improve the quality of service.

Lintas Karya Muda, the community service program partner in this initiative, is a tourism travel agency SME in East Java that has extensive experience in serving Chinese tourists. Field observations indicate that when an interpreter is present, conversations flow more smoothly, creating a more relaxed and enjoyable travel atmosphere. Even simple contacts like saying hello, praising or giving very simple directions in Mandarin significantly increased tourists' satisfaction and emotional attachment between the tourism service providers. Despite receiving a significant amount of experience handling a consistent number of prolific Chinese tour groups, all other Lintas Karya Muda (LKM) staff, including its drivers, administrations and field associates, still cannot communicate in Mandarin even when they are directly engaged with the tourism service process. In the meantime, fitting into the guest culture and being able to communicate with simple words and simple conversation is likely to make some more cordial (Yibing, 2021). Under conditions of Eastern cultural values, which have been greatly honored in Chinese society, friendly as well as context-appropriate interpersonal communication is the vital factor that affects favorable service quality perception. If this basic communication skill applies to all service levels, it is hoped that tourist satisfaction will increase and there are natural promotional effects such as repeated visits or word of mouth in the social environment of tourists (Lestari et al., 2023; Nurmala et al., 2022; Pramasha, 2024). In consequence, the scalability and sustainability of local tourism firms will benefit.

The endeavours to intensify the capacity building of service human resources in tourism conducted by the Ministry of Tourism and Creative Economy through management, marketing and digitalization training held in five priority destinations indicate that strengthening service human resource competence is an extremely strategic and mandatory national agenda to increase Indonesian tourism sector competitiveness. Tourism Potential Data in 2025 reported that the training campaign, which was directed at over 500 tourism managers, stressed that the quality of service and ability to remain receptive toward tourists are key aspects that need to be maintained on an ongoing basis. This finding aligns closely with the context of the community service program conducted with SMEs Lintas Karya Muda, where improving basic Mandarin communication skills for non-translator staff is an urgent need as the number of Chinese tourists increases. Therefore, the contextual Mandarin training program developed in this study not only addresses the specific needs of partners but also aligns with national policy directions for developing tourism human resource capacity, while expanding the scope for training interventions to an aspect that has previously been under-represented in government programs, namely cross-cultural communication skills as a support for service quality.

The community service program initiated by a team of lecturers from Universitas Negeri Surabaya under the Partnership Program with SMEs aims to enhance the capacity of partner tourism SMES actors in applying basic Mandarin language skills in real-world service contexts. The program is designed based on actual field needs and includes intensive training as well as the development of an interactive e-learning book (e-book) that can serve as a self-directed learning tool for employees of Lintas Karya Muda and tourism travel SMEs more broadly. The development of the e-book content was informed by in-depth interviews with tour guides and travel agency managers, ensuring that the material is relevant to actual workflow scenarios in the tourism service sector, such as interaction scripts at airports, major tourist destinations, and during guest transfers to accommodations or departure airports.

The full engagement of all stakeholders at the partner level in every phase of the program is a very important part of its success. So, participants of the program are not just beneficiaries and recipients, but they are active contributors in participatory development of contextualized content as well as field test proactively direct communication practices. The relationship between the academic team and the SMEs partner is based on a joint model; both parties work together to identify needs, form solutions and evaluate the effectiveness of the program in terms of objectives (Tereshchenko et al., 2024). This partnership model is expected to strengthen program sustainability and broaden the impact of human resource capacity development among tourism actors in East Java's tourist destinations.

The study ensured consistency with findings from the field while incorporating a participatory approach in the program design. Theoretically, it is conceptualized within the framework of community-based language empowerment (Bruthiaux, 2002; Rahman et al., 2025), where proficiency in languages is seen as a strategic resource used to lead social and economic change in communities. It has been found in previous studies (Hariyadi et al., 2023; Sendra et al., 2023; Tjaturrini et al., 2021) that language training based on local context and product-specific targeted situations provides more effective empowerment for adult learners than those who learn through the conventional and disconnected generic models of learning, which do not resonate with real-life participant realities. In the context of this program, Mandarin is positioned as a communication bridge between local communities and foreign tourists, ultimately contributing to the sustainable strengthening of local economic capacity.

Thus, this program addresses the practical needs of partner SMEs in navigating the dynamics of the tourism sector while strengthening the synergy between higher education institutions and the tourism industry through a framework of empowerment rooted in language literacy and intercultural understanding.

IMPLEMENTATION METHOD

This program aimed to overcome the obstacle of a lack of communication in person between tourism SMEs' non-interpreter staff and Chinese visitors. The program was based on Participatory Action Research (PAR), which involved an iterative process of assessment, action, and collective reflection with community partners. The counterpart for the community service

program is one productive small and medium enterprise (SMEs) named Lintas Karya Muda which has eleven employees.

Despite that, only 8 participants came to the meeting point located on Jalan Embong Gayam, Genteng subdistrict, Genteng district, Surabaya, Indonesia, and all of them were more than 90% of the total SME members. Model-making is not just learning with a strong flavor of experience (approach combines participatory methods and experiential learning), but learning based on real life experiences in the workplace (Fenwick, 2000, 2001; Kolb & Kolb, 2021). The strategy was a way of assuring that the course would not be solely theoretical, but rather, contextualized and useful communication experiences that were co-constructed around real communicative needs from direct tourists' service (Solikhah, 2021).

The PAR system began with a shared diagnostic process. Pre-implementation observation in the field showed that non-interpreter staff at Lintas Karya Muda, a partner SMEs had no experience and basic training to be able to use Mandarin language. All the previous Chinese tourists were always accompanied by professional interpreters. Thus, personnel like drivers, administrative staff, and field officers could not start an informal conversation, such as greetings, compliments, or polite small talk. It was believed to decline the level of tourism service quality, especially when Chinese tourists maintain a high requirement for interpersonal contact in Eastern social norms.

By following the principles of PAR, this program continued with the planning phase and participatory action. The program began with preliminary coordination with the SMEs management to map out training needs. Subsequently, participatory observation, in-depth interviews (deep interviews), and focus group discussions were conducted with interpreters, travel agency managers, drivers, administrative staff, and field personnel. These activities aimed to identify key communication touchpoints throughout the tourism service workflow, from airport pick-up, visits to tourist destinations, to drop-off at accommodations or departure airports (Putra et al., 2025). Based on these "co-created findings", training materials were developed and tailored to the specific communication needs within this service workflow.

For sustainable learning, an interactive e-book with functional vocabulary, Chinese characters (*hanzi* / 汉字) and phonetic transcription (*pinyin* / 拼音), along with audio sound bites of pronunciation, was created. Use of a digital tool like this e-book was meant to make it feasible for participants to have easy access to the material on their own personal smartphones anytime, load time permitting. Therefore, employees can immediately use the e-book for quick support whenever needed. In addition, the e-book was tested in the training courses. Users received training on its use, feedback was given through group discussions, and an evaluation questionnaire was completed. This feedback was then incorporated into a second draft version of the e-book, which was made more user-friendly.

The training was conducted intensively and practically in collaboration with the SME Lintas Karya Muda, East Java, during the program period from March to June 2025. This activity was designed in focused sessions that enabled participants to gain direct practical experience, particularly in mastering basic expressions commonly used in tourism service. The entire training program was attended by eight participants selected purposively, namely non-interpreter staff who have direct involvement in interactions with tourists. So that all non-translator employees from Lintas Karya Muda SMEs, as many as eight participants, were gathered in a meeting room on Embong Gayam Street, Surabaya, Indonesia and given treatment according to what has been arranged in this program.

Research methods used across the period of the PAR cycle were participant observation, in-depth interviews and a Likert structured questionnaire. Needs and workplace background were identified through observation. Interviews were conducted in the production of training materials and e-books. At the same time, a survey assessed the training outcome and e-book usability. Data accuracy was guaranteed by the use of methodological triangulation, while instrument reliability was established by pre-testing of the interview guide questions and questionnaire in a pilot study.

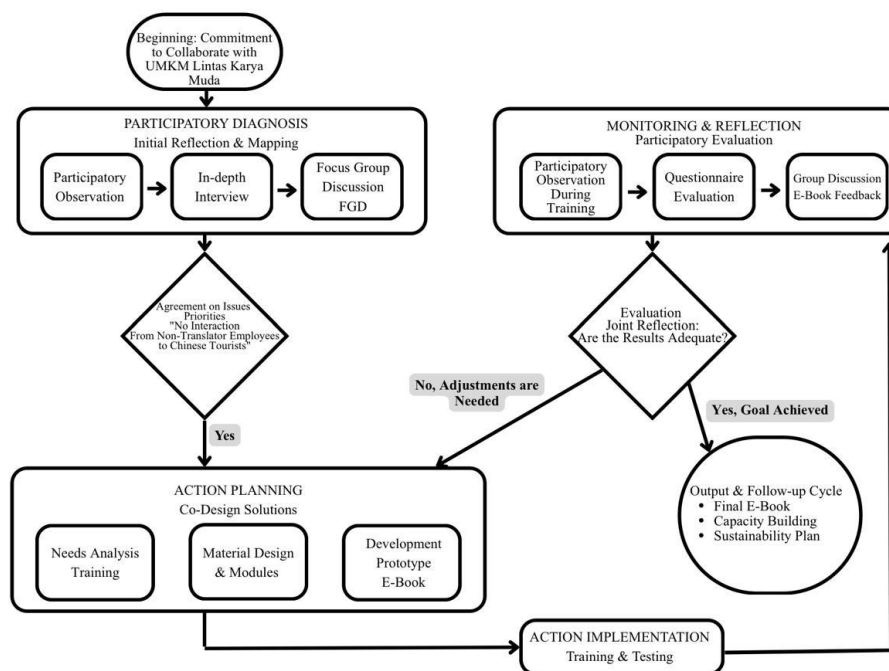


Figure 1. Implementation Method Flow Chart

A well-developed protocol process explicitly integrated participatory problem mapping, co-designed solutions in a community context, mentoring and evaluation consistent with precedent community engagement models (Rachman et al., 2024; Y. Rahman et al., 2024). Anticipated outcomes of this project are: (1) enhanced Mandarin language proficiency of non-interpreter SMEs staff in basic communication needs for the tourism services contexts, and (2) a co-created interactive e-book as an autonomous learning resource that is transferable and sustainable. In all, this is purported to create a service setting of greater hospitality, responsiveness and attentiveness to the satisfaction of tourists, especially those from other countries.

RESULTS

Pre-Program Conditions

As stated in the background section, the employees at the partner tourism travel SMEs, Lintas Karya Muda, had no Mandarin language skills before the community service program started. Up until that moment, travellers from China could only talk to people who spoke Chinese if they had an interpreter with them. This made it harder to give the best service possible. This problem was real and important, especially since the number of Chinese tourists coming to East Java has been rising quickly in recent years.

Initial observations at Lintas Karya Muda showed that none of the non-translator staff spoke Mandarin; therefore, they had to rely on translators when they talked to Chinese tourists. This restriction made it harder to be flexible in how services were provided and made it harder to build direct relationships. At the same time, casual talks that took place before the training showed that the workforce was very motivated to learn basic Mandarin to improve their skills at work. This incident shows how important it is to choose the right partners and make sure that the program's goals and the requirements of the participants are in line with each other.

Table 1. Participant Characteristics

	Age Range	Recent Educational Background	Specific Position	Work Experience	Frequency of Interaction with Chinese Tourists Per Month	Mandarin Language Proficiency	Technology Understanding Level
	• < 25 • 25 – 34 • 35 – 44 • 45 – 54 • ≥ 55			• Beginner (<3yrs) • Intermediate (3–7yrs) • Experienced (8–12yrs) • Senior (>12yrs)		• Not at all: 0% • Beginner (Only knows 1-3 basic greetings): 25% • Limited Basic (Can use greetings and numbers, but lacks confidence): 50% • Fair Basic (Can have very simple conversations): 62.5%	• Very Low (Only chatting app/WhatsApp): 25% • Low (Can use social media): 50% • Fair (Comfortable with new apps): 75% • Good (Frequently uses apps for learning/work): 100%
Participant 1	33	Bachelor's Degree	Driver	3	3	5	0
Participant 2	31	Senior High School	Driver	3	3	4	0
Participant 3	26	Bachelor's Degree	Driver	3	3	9	0
Participant 4	28	Bachelor's Degree	Driver	3	3	5	0
Participant 5	26	Diploma (Associate Degree)	Driver	3	3	6	0
Participant 6	39	Bachelor's Degree	Driver	6	6	20	20
Participant 7	33	Senior High School	Driver	1	1	3	0
Participant 8	41	Bachelor's Degree	Driver	1	1	5	0

Eight driver-operational staff members from the Lintas Karya Muda tourism UKM took part in this training program. They all had direct, everyday contact with tourists during the trip. The participant profiles indicated a cohesive group for demographics and digital readiness; nevertheless, there was a significant disparity in pre-existing Chinese language proficiency, which constituted the primary rationale for this intervention.

This group is all young and has a lot of education. All of the drivers (100%) were under 45 years old. The bulk (87.5% or 7 out of 8) were between 25 and 34 years old. One driver (12.5%) was between the ages of 35 and 44. 62.5% (5 drivers) have a bachelor's degree, 25% (2 drivers) have a high school diploma, and 12.5% (1 driver) have an associate degree. This background demonstrates the ability to engage in organized learning.

Most importantly, these drivers are hired and valued not because they speak Chinese, but because they have specialized operational skills, such as expert driving skills with the right licenses, in-depth knowledge of major tourist routes, and strong ties to the local communities in the destination. Because of this concentration on hiring, almost all of the drivers (87.5% or 7 out

of 8) enter the program with no knowledge of Chinese (0%). A senior driver said they were “beginner” level (25%), which means they barely knew a few fundamental greetings. Even though they don't know much English, they need to communicate a lot for their jobs. For example, they interact with groups of Chinese tourists 3 to 20 times a month, with an average of 7 interactions per driver each month.

In their first Chinese tourist groups, the drivers had a mix of junior and intermediate level experience. 37.5% (3 drivers) were classed as “beginner” (<3 years), while 62.5% (5 drivers) fell into the “intermediate” category (3-7 years). One big plus for the digital learning part is that every driver (100%) shows a “good” level of digital readiness. This means that they are regular and skilled users of smartphone apps for work and personal use, which makes them a good fit for interactive e-book tools.

To sum up, the profile of the participants includes young, well-educated, and tech-savvy drivers who do not speak any foreign languages as part of their main job abilities. This creates a glaring gap between their frequent interactions with Chinese visitors and their capacity to communicate even in simple ways. This makes it evident what they need and what kind of Chinese language instruction they require.

Training Outcomes

During the training, participants showed a lot of interest and engagement, especially when they made connections between new ideas and those they already knew about language. Their openness to ask questions and respond showed that they were ready to learn new ways of communicating. Participants showed considerable enhancement in functional communication abilities, especially in the application of fundamental Mandarin phrases pertinent to tourism service contexts.

Interestingly, the problem that was found was also a good thing. Before the community service activity began, participants talked informally about their goals and said that they were looking forward to Mandarin language training. This shows that there is internal drive to improve one's own skills, especially when it comes to learning Mandarin. So, the community service team thought it was right to choose this partner because the organization had a relevant problem and the workforce was clearly ready and eager to learn and grow.

The training was placed in a meeting room on Embong Gayam Street in Surabaya, Genteng subdistrict, Genteng district, East Java, from March to June 2025, and was very hands-on and practical. It was done with the help of the SMEs Lintas Karya Muda. During the session, something strange happened: people asked about the meanings of words like “*cepek*” and “*gopek*,” which they saw a lot on social media. People first thought these words were Mandarin vocabulary, but they are actually Indonesian slang words that have been changed by Hokkien dialectal variants.

Cepek, which is commonly used in East Java to mean “100,000 Indonesian rupiah,” does not come from the Hokkien word for “one hundred” (*chit-pah*). Instead, it probably comes from *chhit-peh* (七百, “seven hundred”), which has changed meaning in the local context. *Gopek*, which means “five hundred” in Indonesian, originates from *go-peh* (五百). Even though both words come from Hokkien, they are not part of Standard Mandarin. This shows how language and culture mix in Indonesian-Chinese casual conversation.

This event was taken as a sign of high participant interest, as seen by their spontaneous attempts to connect what they already knew with the new training content. In response, the community service team quickly included short explanations of Chinese culture and language to the basic Mandarin courses, which made the lessons more interesting and relevant.

The training materials were part of a self-learning e-book that was meant to be given away for free to the target partners. The training session also served as a chance to observe the field and see if the e-book content was appropriate before it was officially released. This invention was created with the target partners in mind: non-interpreter staff from the SMEs sector who work in mobile settings and don't have much time to learn formally. To deal with these limitations, several material design strategies were put into place: (1) using pictures to help people understand, (2) organizing the content around real-life tourism service scenarios at three of East Java's top tourist

spots: Mount Bromo, Ijen Crater, and Tumpak Sewu Waterfall, (3) showing Chinese characters (*hanzi* / 汉字) next to phonetic transcription (*pinyin* / 拼音), and (4) adding audio pronunciation features to help people learn how to speak.

Table 2. Screenshots of the E-Book Content

a 	(a) Front cover page displaying e-book features and introductory information
b 	(b) Learning module on the theme of compliments and polite expressions
c 	© Content module on the theme of distinctive characteristics of Mount Bromo tourism
d 	d) Content module on the theme of factual conditions and situational communication at Ijen Crater tourism site

In the teaching method, the community service team didn't set rigorous rules about tonal correctness (*shengdiao* / 声调), even though Mandarin has at least four different tones that change the meaning of words. The same leniency was given to pronunciation, especially for consonants that are hard for Indonesian speakers to say, such *zhi*, *chi*, *si*, and *ri*. This method was planned out in a way that would make people think that learning Mandarin is not scary and would fit with the training's goal, which is not to make Mandarin language specialists but to help people communicate.

The main goal for non-interpreter staff was to learn basic Mandarin communication skills that would help them talk to tourists directly. To help with this purpose, the e-book had audio pronunciation capabilities that let participants practice the speech models on their own, both

during the training session and later while they were learning on their own after the program ended. This multimodal support, which included text, pinyin, Hanzi, and audio, was meant to make things easier to access and work with and to fit different learning styles in a non-formal work setting.

Table 3. Activity Documentation

a		(a) Presenting the e-book usage mechanism
b		(b) Delivering Mandarin language learning materials in the e-book.

Evaluation Data

We used a five-point Likert scale questionnaire (ranging from strongly agree to strongly disagree) to see how well the e-book was optimized. Participants filled it out once the training was over. This tool was made to find out how participants felt about the e-book content, how satisfied they were with it, and how valuable they thought it was. The input that was collected was used to figure out how well the information worked and to find areas that needed to be improved before the e-book was released to the general public. The following shows the outcomes of the feedback that was put together.

Table 4. Results of the E-Book Usage Evaluation

No	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The images in the e-book are attractive and easy to understand	87.5%	12.5%	0%	0%	0%
2	The Mandarin sentences and pinyin are displayed clearly	50.0%	50.0%	0%	0%	0%
3	The audio in the e-book helps with correct pronunciation	62.5%	37.5%	0%	0%	0%
4	The content of the e-book helps me speak more politely and friendly	75.0%	25.0%	0%	0%	0%
5	The vocabulary in the e-book is relevant to my job needs	87.5%	12.5%	0%	0%	0%
6	I feel more confident using Mandarin in payment transactions with tourists	75.0%	25.0%	0%	0%	0%
7	I can follow the e-book even without a higher education background	62.5%	37.5%	0%	0%	0%
8	I would like to see this e-book adapted and used to promote other tourist destinations	75.0%	25.0%	0%	0%	0%
9	The e-book enables me to learn in an enjoyable way	50.0%	50.0%	0%	0%	0%

10	I would be willing to attend similar programs focused on language for real-world tourism situations, such as transactions and promotion	87.5%	12.5%	0%	0%	0%
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The results show that most of the people who took part liked the idea of using the e-book to learn. This positive response backs up the idea that making small changes to technology based on what people really need can help people learn new skills and solve real-world problems. Also, the program showed that people were really interested in it, which is a good sign that it worked. Participants were not just passive users of the training materials; they helped make the e-book content, took part in field testing, and gave feedback through open discussions. People felt like they owned both the learning process and the materials because of this interactive method. This is important for keeping people motivated and using what they learned at work for a long time.

The results were very good. In the last evaluation item, 87.5% of people strongly agreed and 12.5% agreed with the statement, "I would like to take part in similar training again." People were willing to do the training again, which shows that they thought it was useful right away. This is important for the economy to be strong because it means paying more attention to the practical side of business to make transactions easier or to promote tourist attractions.

A reliability test using Cronbach's Alpha was done to ensure that the tool used to rate the e-book was very consistent. The goal of this study was to see how well the different parts of the questionnaire gave consistent and reliable answers. This would give researchers a good reason to make conclusions (Rahmahtrisilvia et al., 2022).

Table 5. Results of Instrument Reliability Test Using Cronbach's Alpha

$$\alpha = \frac{(K)}{(K-1)} \left(1 - \frac{\sum S^2_{\text{item}}}{S^2_{\text{item}}} \right)$$

$$\alpha = 0.8904$$

This score shows that the instrument is reliable for measuring how participants feel about the usefulness of contextual e-books because it has a high level of internal consistency. We used the VAR.S function in Microsoft Excel to do the math.

The average score was 4.6 out of 5, which means that most people were very happy with the event. Most of the things got an average score of more than 4.5, which means that they were always rated well. These results back up the idea that the training program met the needs of the people who took part.

Using the raw response data from the eight participants, the Cronbach's Alpha coefficient of 0.89 was found. Table 6 displays the individual responses to all ten Likert-scale questions, along with the variance components required to assess reliability. This is to make sure that the results are clear and can be repeated.

Table 6. Respondent Data on Likert Scale and Variance Calculations

R	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
R1	5	5	5	5	5	5	5	5	5	5	50
R2	5	4	5	5	5	5	5	5	4	5	48
R3	5	4	4	5	5	4	4	4	4	5	44
R4	5	5	5	5	5	5	5	5	5	5	50
R5	4	4	4	4	5	5	4	4	4	4	42
R6	5	4	5	4	4	4	4	5	4	5	44
R7	5	5	5	5	5	5	5	5	5	5	50
R8	5	5	4	5	5	5	5	5	5	5	49
VAR.S Total = 10,6964286											

VAR	0.1 25	0.2857 1429	0.2678 5714	0.2142 8571	0.1 25	0.2142 8571	0.2678 5714	0.2142 8571	0.2857 1429	VAR.S / Q = 0.125
SUM / Q = 2.125										

Note:

5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree

R = Respondent

Q = Question

The Cronbach's Alpha value of 0.89 indicates that the instrument utilized in this activity is highly reliable. Cronbach's Alpha is a commonly employed reliability coefficient for evaluating the internal consistency of instruments, particularly those that utilize Likert scales (Kusmaryono et al., 2022). This number tells you how well the items in the instrument measure the same thing and how closely they are related.

A Cronbach's Alpha score of 0.70 or higher is okay, 0.80 or higher is good, and 0.90 or higher means very high dependability. A score of 0.89 is very close to being very reliable (Forester et al., 2024). This means that the instrument was made in a way that is always the same so that it can give reliable data for later analysis. The high reliability value also means that there is a low chance of measurement error because the items are not consistent with each other. This means that the instrument is good for use in this study.

DISCUSSION

The results of this training have wider strategic implications for the development of SME-based tourism services in the surrounding areas (Baswarani et al., 2024). By improving foreign language competence at the operational level, partner SMEs improve the quality of services and at the same time strengthen their competitiveness in responding to the dynamics of international tourism. For example, from the initial level of zero Chinese language proficiency, the majority of participants reported a significant increase in confidence, with about 71.25% stating that they felt much better able to interact with Chinese tourists after the training. This increase is an indicator of the success of the first program, namely the increase in functional communication capacity among tourism service workers, which serves as the basis for subsequent social and economic changes.

The initiative conceptually supports a community-focused approach to language empowerment, viewing language as a means of communication and a vehicle for economic and cultural progress to capitalize on new opportunities. Theoretically, these findings support the idea that language instruction embedded in community contexts can act as a catalyst for social empowerment by enhancing participants' symbolic and economic wealth. The rise of e-books as a simple digital innovation shows that technology-driven change can be done in a way that includes everyone, even informal sector workers who have been seen as hard to reach with traditional educational methods. This shows that the second program worked because it used useful and easy-to-understand learning tools to get around the problems that come up with self-directed learning and directly help with business operations.

These community service projects show that language education can help build capacity in two ways: by improving intercultural interactions and by making local communities stronger in the global tourism value chain. Another important part of this program is that it teaches workers the language skills they need to make transactions easier, market tour packages, and give better information about places to go. This can make the whole experience better for visitors, which will help businesses do better and the economy stay strong. People in the community need to be actively involved (Firdaus & Handoyo, 2021), the right new ideas need to be used, and people need to learn from their mistakes in order for social change to happen. The social and economic benefits of this program happen slowly. First, participants become more motivated; then service encounters become more communicative, leading to better sales and customer relations. In the end, this will give small business owners who work in tourism more confidence and professionalism, which will make them more competitive in the job market.

The program is working well because both the participants' answers and the quality of the learning tools that were made show this. A Likert scale assessment indicated that 87.5% of

participants strongly agreed that contextual e-books enhance their learning experience, reflecting a notably high degree of usability and product acceptance. The Alpha Cronbach value of 0.89 also shows that the questionnaire used to test this idea is very trustworthy. These numbers, along with the qualitative results that show that non-translator staff have improved their basic Chinese communication skills, show that the program has successfully dealt with the early problems of not having enough contextual teaching materials and self-study tools. From a practical perspective, these findings confirm that simple, context-specific digital learning tools can serve as a sustainable support system for continuous skill development in the informal tourism sector.

The training was mostly about basic social emotions, but this better ability to communicate has a big impact on the economy for partner SMEs. In the tourism industry, simple greetings and compliments can often lead to close and warm relationships. This is a big step toward getting to know and trusting travellers, especially in Chinese culture, where trust is very important. To make money, tourists' first interactions with businesses must be positive. This can be done through positive online reviews, word-of-mouth referrals, and customer loyalty, all of which lead to more sales and repeat business. So, this e-book doesn't teach transactional language directly, but it does set up a relationship between operational services and long-term economic effects. The next strategic idea is to make a follow-up training e-book that focuses on vocabulary and real-life conversations about service offerings, shipment confirmations, or simple transactions. This will make the effect stronger.

In relation to the SDGs, these success indicators are closely linked to achieving SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth). SDG 4 is helped by making Chinese language training easy to access and relevant to the jobs of tourism SMEs. This is especially true when it comes to helping them learn the language skills they need to do their jobs. Better service capacity and interactions with Chinese tourists also support SDG 8, since better communication is closely linked to happier tourists, more repeat visits, and the competitiveness of local tourism SMEs. So, good scores on the tests and reliable measuring tools show that the program worked for the people who took part and made a real difference in the bigger picture of the goals for sustainable development. Regular advanced training, connecting them with networks of local tourist stakeholders, and regularly updating the digital learning content could make these community service programs last longer. This will help people learn and grow over time and have a bigger effect on society.

CONCLUSIONS

The community empowerment project that taught basic Mandarin to non-interpreter staff at tourism SMEs in East Java was the most successful in terms of meeting its goals. The whole series of well-planned events helped the participants get better at basic communication skills, which are very important for Chinese tourists in the tourism business. The interactive e-book-based learning tool that came out of this project was very well received by the people who used it. They thought it was simple to use, the information was helpful for their jobs, and it had real-world benefits. The evaluation tool's high reliability grade (Cronbach's Alpha = 0.89) shows that the program's results were measured accurately and consistently, which means that the methods used worked.

The strategies used in this program were very helpful for the partner's problems, needs, and challenges. The participatory method and experiential learning worked together to make the learning experience useful and relevant. Based on observations and in-depth interviews about how tourism services work, the materials were made to meet the needs of the students. The interactive e-book was a simple digital invention that helped people who didn't have a lot of time for formal learning by letting them use technology to learn on their own in a way that worked for them. People were able to get past language barriers without having to learn all of Mandarin phonology because they focused on learning simple words that are useful in direct service situations. This made it easier for people to learn and less scary.

This app does more than just help people learn a language better. It also helps small and medium-sized tourism businesses in the area do better in the global market. When you can talk to Chinese tourists in person, warmly, and in context, it makes the service better, builds positive emotional connections, and opens up chances for organic promotion through word-of-mouth

referrals and repeat visits. Also, the fact that the participants were actively involved in making and judging the e-book content made them feel more responsible for both the learning materials and the program's results, which made them more likely to keep studying.

To make empowerment programs last, there should be an online mentorship platform that a lot of people can use. This program should let people learn on their own, but it should also give them help when they need it. This plan would make it easy for people to keep studying, let them check on their progress often, and help small and medium-sized businesses in other areas that rely on tourism. It is also a good idea to update the e-book's content every so often to keep up with changes in language needs and tourism trends. This will keep the program working, flexible, and current over time.

The software did a lot of good things, but it also had some flaws that need to be pointed out to make the analysis fair. There are only eight non-translator workers in the study, which makes it hard to apply the results to all tourist SMEs in East Java and make generalizations about them. Also, the training and observation periods were too short to properly test long-term memory or the use of Mandarin phrases in real-life service interactions. The evaluation primarily comprised self-report metrics of confidence and perceived utility, which may inadequately reflect objective enhancements in language proficiency. So, future programs should include more people, use long-term assessments, and use performance-based evaluations to make the program stronger and prove that its effects are real.

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ETHICAL CONSIDERATIONS

In this article about community service, the author does everything they can to follow the rules of good publishing. We got all the information directly and worked with the SMEs partners to make sure it was legal and ethical. The manuscript is still free of plagiarism because all of the works that were cited were done so correctly. Also, since all activities depended only on the partners' willingness to participate and full cooperation, there were no conflicts of interest during the program's implementation or reporting phase.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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AUTHOR CONTRIBUTIONS

Yogi Bagus Adhimas conceptualized the community service program, designed the research framework, and supervised the overall manuscript preparation. Stephen Aji Wardana contributed to the Participatory Action Research design, field coordination, and data collection. Muhammad Wafiq Tanjung Pratama assisted in observation, interviews, Focus Group Discussions, and questionnaire administration. Pipit Dwi Angraini developed the Mandarin literacy training materials and contextual tourism vocabulary. Lutfi Saksono contributed to the design and

development of the interactive eBook and self-learning resources. Zhuang Haili reviewed the accuracy of Mandarin language content, Chinese characters, phonological transcription, and pronunciation aspects. All authors contributed to data interpretation, manuscript revision, and approval of the final version.

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