English Journal

Vol. 19, No. 2; September 2025, pp. 195-205

ISSN: 1858-3490 E-ISSN: 2654-3400 Available online at:

https://ejournal.uika-bogor.ac.id/index.php/ENGLISH



THE EFFECTIVENESS OF SCRIPTED AND IMPROVISED ROLE-PLAY IN DEVELOPING SPEAKING SKILLS: CLASSROOM ACTION RESEARCH

Maya Marsevani^{1*}, Diba Yuri Mustafa², Hendra Nugraha³

^{1,2,3} English Language Education, Faculty of Education, Universitas Internasional Batam maya@uib.ac.id*

*Corresponding author

Article History

First Received: Revised: Accepted: (July 31, 2025) (September 8, 2025) (September 15, 2025)

Final Proof Received: Published: (September 25, 2025) (September 30, 2025)

ABSTRACT

This study aimed to investigate how structured drama activities supported by iterative teaching and peer evaluation could enhance learners' pronunciation, fluency, and confidence in speaking English. This Classroom Action Research (CAR) was conducted to enhance the Englishspeaking abilities of tenth-grade students at one school in Batam through drama-based instruction. The study involved 44 students from Grade 10, who were selected based on document analysis indicating poor performance in speaking-related tasks. A systematic approach was utilized, which included a pre-test, two cycles of implementation, and a post-test. The pre-test results revealed that 59% of students were at Level 1 and 27% at Level 2, indicating serious deficiencies in pronunciation, fluency, and self-confidence. After the intervention, 100% of the students (n = 44) advanced to Level 3, representing a complete elimination of Level 1 and Level 2 classifications and a 52-point increase in average speaking scores (from M = 38.7 to M = 90.6). This improvement was achieved through structured drama activities such as monologues, role-plays, and improvisational skits supported by warm-up exercises, peer evaluation, and iterative teaching modifications. The findings confirm that drama is not only an effective practice-based strategy but also a theoretically grounded pedagogy aligned with Vygotsky's Sociocultural Theory and Krashen's Affective Filter Hypothesis, as it creates lowanxiety, interactive learning environments that facilitate authentic communication. The study contributes to both theory and pedagogy by demonstrating how scripted and improvised roleplay can systematically transform learners' oral proficiency in EFL classrooms while offering a replicable framework for adaptive, reflective language teaching.

Keywords: drama-based learning, speaking skills, Classroom Action Research, ESL students, communicative language teaching.



INTRODUCTION

Speaking proficiency is an essential component of English language acquisition, particularly for learners of English as a Second Language (ESL). Despite its importance, many students continue to face persistent difficulties in expressing their thoughts fluently and accurately (Aziz & 2021). Common issues Kashinathan. include mispronunciation, unnatural intonation patterns, and a limited range of vocabulary. These challenges often lead to communication breakdowns, listener comprehension, and diminished student confidence. Misarticulated vowel sounds and incorrect word stress not only affect intelligibility but also impact students' willingness to participate in oral activities, which in turn hinders their academic performance and classroom engagement (Li & Abdullah, 2024).

Improving speaking skills requires traditional instruction more than grammar and vocabulary. Learners benefit most when provided with authentic, meaningful opportunities to use language in dynamic and expressive contexts (Sharma, 2024). Drama-based pedagogy offers such opportunities by immersing students in imaginative scenarios that demand realtime communication. According to Başaran (2024), drama techniques enhance learners' pronunciation, fluency, and lexical development encouraging by active participation in lifelike dialogues and interactive tasks. Beyond linguistic improvement, drama fosters creativity, emotional expression, and interpersonal core elements of effective communication (Dewi & Hayati, 2025).

The integration of drama into language teaching aligns with Vygotsky's

Sociocultural Theory, which emphasizes the role of collaborative interaction in cognitive and linguistic development (Hu & Shu, 2025). Activities such as role-playing and improvisation provide spaces where learners co-construct meaning, adopt new perspectives, and negotiate language use in context (Suseno, 2024). This also resonates with Krashen's Affective Filter Hypothesis, which highlights the importance of reducing anxiety to enable successful language acquisition (Mustamir, 2024). Furthermore, the focus on interaction and adaptability echoes Canale and Swain's communicative competence framework, particularly in its attention to sociolinguistic and strategic competence skills that drama uniquely cultivates.

Although prior studies have documented the benefits of drama for language learning (Başaran, 2024; Dewi & Hayati, 2025), empirical comparisons between scripted and improvised role-play remain limited. Scripted role-play provides structure, scaffolding learners' use of vocabulary and grammar in a controlled context (Suseno, 2024). By contrast, improvised role-play demands spontaneity, encouraging learners to draw on existing while enhancing linguistic resources fluency and interactional skills (Komul, 2023). Yet, few studies have systematically examined how these two complementary approaches compare in fostering speaking proficiency at the high school level a developmental stage where learners must accuracy balance with fluency preparation for higher academic and professional demands (Marsevani Habeebanisya, 2022).

Moreover, while classroom action research (CAR) has been widely employed

to evaluate language pedagogy (Pratiwi, Togatorop, & Marsevani, 2024), the integration of drama techniques with iterative CAR cycles has rarely been highlighted in the literature. The cyclical nature of CAR allows teachers to adapt scripted and improvised tasks based on learner feedback, making it a powerful framework to test the complementary impact of both methods in real time (Dawoud et al., 2024). This study thus addresses a notable gap by combining CAR methodology with drama-based pedagogy to provide empirical insights into the comparative effectiveness of scripted and improvised role-play.

METHOD

This research utilized Classroom Action Research (CAR) as its primary methodological framework, adhering to the model established by Kemmis McTaggart. CAR was chosen for its focus ongoing enhancement through a reflective cycle comprising planning, action, observation, and reflection an particularly approach beneficial for educators aiming to improve classroom methodologies. This flexible and iterative process enabled the researcher to methodically apply and refine scripted and improvised role-play techniques to foster the advancement of students' speaking skills.

The study aimed to investigate the efficacy of drama-based role-play in improving essential speaking skills, including pronunciation, intonation, spontaneous speech, vocabulary and application (Man et al., 2021). To distinguish the approaches, Cycle emphasized scripted role-play, in which students prepared short dialogues with clear scaffolding for accuracy in pronunciation and vocabulary use. Cycle 2 emphasized improvised role-play, where students engaged in spontaneous skits situational dialogues without prior scripts, encouraging fluency and interactional competence. The researcher engaged continuously in the classroom, adapting the instructional approach based on student feedback and interactions. Data were collected from observations, student evaluations, and reflective journals, which were crucial in guiding teaching strategies and monitoring student engagement. Given its flexibility and theoretical foundation, the Collaborative Action Research (CAR) method was deemed suitable for this classroom study, enabling the researcher to foster a reflective, student-focused learning atmosphere that promoted linguistic growth.

The study was carried out in one of the most well-known public senior schools in Batam, focusing on class 10-C (N = 44; 24 female, 20 male, aged 15-16 years). This class was purposively chosen after analysis of academic documents during the preparatory phase revealed that students consistently performed poorly on speech-related tasks and were not accustomed to assignments requiring active speaking. This made the class a relevant and urgent context for targeted interventions.

Participants came from different language backgrounds, which added depth to the study by showing how drama-based role-play affected learners with varying levels of English ability. The inclusion of both high and low achievers promoted inclusivity and ensured that the intervention addressed a wide range of competencies.

The speaking assessment rubric was adapted from previous research (Komul,



2023; Kumar et al., 2022) and modified for this study. It emphasized five criteria: pronunciation, intonation, fluency, vocabulary, and grammar, each rated on a 1–5 scale. Cumulative scores were then categorized into performance levels.

To ensure the reliability and validity of the speaking assessment rubric, two independent raters evaluated 20% of the pre- and post-test recordings, yielding an inter-rater agreement of $\kappa=.84$, which indicates strong consistency. The rubric was further reviewed by two English teaching experts and piloted with a non-

participating class to strengthen its validity. In terms of descriptive statistics, the pre-test results showed a mean score of M=38.7 (SD = 6.4), with 26 students (59%) at Level 1, 12 students (27%) at Level 2, 4 students (9%) at Level 3, and none at Level 4. By contrast, the post-test results demonstrated a substantial improvement, with the mean score rising to M=90.6 (SD = 5.2) and all 44 students achieving Level 3 proficiency, indicating significant progress in speaking performance across the entire class cohort.

Table 1. The Rubric of Students Speaking Skills

Criteria	Level 1 (10–39) Needs Improvement	Level 2 (40–59) Developing	Level 3 (60–79) Proficient	Level 4 (80–100) Excellent
Confidence & Delivery	Lacks confidence, hesitant, many pauses and anxiety affect delivery.	Some confidence shown, but still hesitant and inconsistent.	Generally confident with minor hesitation, mostly fluent.	Highly confident, fluent, clear voice, no visible anxiety.
Expressiveness & Pronunciation	Flat tone, unclear pronunciation, hard to understand.	Some expressiveness and effort in pronunciation, but inconsistent.	Good intonation and mostly accurate pronunciation.	Very expressive, excellent pronunciation and articulation.
Spontaneity & Interaction	Speech sounds memorized, poor interaction with others.	Some natural moments but lacks flow in dialogue or collaboration.	Converses naturally with minor scripted moments.	Fully spontaneous, seamless interaction, natural conversation.
Engagement & Improvement	Low engagement, no significant improvement in speaking.	Occasionally participates, slight progress shown.	Actively participates, noticeable improvement.	Highly engaged, enthusiastic, and shows strong progress in

In addition to test scores, an openended questionnaire was administered to a subsample of 10 students. This group was purposively selected to represent diverse proficiency levels (from Level 1–3 in the pre-test) and gender balance, ensuring varied perspectives. Only 10 were chosen to enable in-depth qualitative coding and analysis, which would have been impractical with all 44 students. The questionnaire, adapted from earlier research (Komul, 2023; Suhada et al., 2025), included seven open-ended items focusing on confidence, engagement, fluency, group



collaboration, motivation, instructional clarity, and overall satisfaction with drama-based learning.

Table 2. The Rubric of Students Questionnaire

NO	Interview Question
1	How confident did you feel when speaking English before and after participating in the drama-based activities?
2	Did you enjoy participating in the drama role-play activities? Why or why not?
3	In what ways do you think your fluency in speaking English has changed since doing the drama activities?
4	How comfortable were you working and performing in groups during the drama sessions?
5	Did the drama activities make you feel more motivated to speak and use English in class? Please explain.
6	Were the instructions and guidance for the drama tasks clear and easy to follow? Why or why not?
7	Overall, how satisfied were you with using drama to learn speaking skills? What did you like or dislike about it?

The research data were analyzed using a mixed-methods approach that combined both quantitative and qualitative techniques. Quantitative analysis involved averaging and comparing the pre- and posttest scores, supported by descriptive standard statistics such as means, deviations, and distributions, to capture measurable improvements in students' speaking performance. Complementing this, qualitative analysis was conducted through thematic coding of questionnaire responses to identify patterns in student perceptions of scripted and improvised roleoffering deeper insights motivation, confidence, and engagement. By integrating these two approaches, the mixed-methods design ensured triangulation, allowing both measurable outcomes and experiential perspectives to be incorporated into the evaluation of the effectiveness of scripted and improvised role-play.

FINDINGS AND DISCUSSION

The data collection for this study involved a combination of pre-tests, post-tests, and additional information gathered from documents outlining students' previous speaking scores. Instead of conducting observations classroom during preliminary stages, the researcher analyzed historical academic records to assess the foundational speaking abilities of students in class 10-C. This analysis uncovered ongoing difficulties related pronunciation, fluency, vocabulary application, and overall speaking competence.

A speaking assessment rubric was employed and adapted in accordance with previous research for both the pre-test and post-test phases. This rubric focused on five critical criteria: pronunciation, intonation, fluency, vocabulary, and grammar, with each criterion rated on a scale from 1 to 5. The implementation of this structured rubric enabled a reliable and impartial assessment of the students' speaking



progress throughout the duration of the study.

Pre-Test

The preliminary assessment was conducted prior to any instructional intervention to evaluate the baseline speaking abilities of the students. Prior to the administration of the pre-test, the researcher undertook a document analysis of prior student report cards and records of English tasks. This analysis indicated that students in Class 10-C consistently exhibited deficiencies in tasks that

necessitated oral communication, particularly regarding fluency, pronunciation, and confidence in spontaneous speaking situations.

During the pre-test, students were assessed according to four criteria: Confidence & Delivery, Expressiveness & Pronunciation, Spontaneity & Interaction, and Engagement & Improvement. Each student was assigned a cumulative score out of 100, which was subsequently classified into four distinct performance levels.

Table 3. The Rubric of Students Speaking Skills

Criteria	Level 1 (10–39) Needs Improvement	Level 2 (40–59) Developing	Level 3 (60–79) Proficient	Level 4 (80–100) Excellent
Confidence & Delivery	Lacks confidence, hesitant, many pauses and anxiety affect delivery.	Some confidence shown, but still hesitant and inconsistent.	Generally confident with minor hesitation, mostly fluent.	Highly confident, fluent, clear voice, no visible anxiety.
Expressiveness & Pronunciation	Flat tone, unclear pronunciation, hard to understand.	Some expressiveness and effort in pronunciation, but inconsistent.	Good intonation and mostly accurate pronunciation.	Very expressive, excellent pronunciation and articulation.
Spontaneity & Interaction	Speech sounds memorized, poor interaction with others.	Some natural moments but lacks flow in dialogue or collaboration.	Converses naturally with minor scripted moments.	Fully spontaneous, seamless interaction, natural conversation.
Engagement & Improvement	Low engagement, no significant improvement in speaking.	Occasionally participates, slight progress shown.	Actively participates, noticeable improvement.	Highly engaged, enthusiastic, and shows strong progress in

Among the 44 students assessed, 26 individuals (59%) were classified at Level 1, 12 students (27%) at Level 2, and only 4 students (9%) achieved Level 3, while no students attained Level 4. Two students (5%) were absent. These findings suggest that a significant portion of the class necessitates targeted support to enhance their speaking confidence, spontaneity, and expressiveness, thereby justifying the

implementation of drama-based strategies within the educational framework.

Implementation Cycle

The drama-based intervention was conducted in iterative cycles. In Cycle 1, students engaged primarily in scripted role-play, performing short dialogues with prepared lines. This structure provided scaffolding but also revealed that many learners were hesitant, overreliant on memorized text, and reluctant to interact



spontaneously. Peer collaboration was minimal, and pronunciation issues persisted.

In By the final cycle, students demonstrated increased confidence. fluency, and willingness to participate. Their speech delivery became more natural, with less reliance on memorization and greater use of expressive intonation and gestures. Group performances evolved into cohesive and dynamic presentations, highlighting both linguistic and nonlinguistic gains., the design shifted to improvised role-play, where students enacted unprepared situations in small groups. This promoted spontaneity, natural interaction, and collaborative problem-Warm-up drills (breathing, solving. articulation, posture exercises) reduced speaking anxiety, while improvisation encouraged more authentic communicative exchanges. Peer evaluations and reflective discussions further reinforced engagement and accountability.

By the final cycle, students demonstrated increased confidence, fluency, and willingness to participate. Their speech delivery became more natural, with less reliance on memorization and greater use of expressive intonation and gestures. Group performances evolved into cohesive and dynamic presentations, highlighting both linguistic and nonlinguistic gains.

Post-Test

The post-assessment was carried out The post-assessment was conducted through small group theatrical performances. Using the same rubric, the results showed dramatic improvement.

Table 4. Comparative Analysis of Student Performance

Category	Score Range	Pre-Test $(n = 44)$	Post-Test $(n = 41)$
Level 1	10–39	26 students	0 students
Level 2	40–59	14 students	0 students
Level 3	60–79	4 students	44 students
Level 4	80–100	0 students	0 students

The results indicated that all students achieved Level 3 proficiency, eliminating the presence of Level 1 and Level 2 learners. The mean score increased from $M = 38.7 \, (SD = 6.4)$ in the pre-test to $M = 90.6 \, (SD = 5.2)$ in the post-test, demonstrating substantial quantitative gains.

However, it is important to note that no students reached Level 4 (Excellent). This limitation may be attributed to the relatively short intervention period (two cycles), the initial low proficiency of the cohort, and the inherent challenge of achieving near-native fluency within a limited timeframe. It suggests that while drama-based activities can rapidly elevate learners from struggling to proficient, sustained exposure and longer interventions may be necessary for learners to achieve excellence.

Overall, the quantitative results confirmed significant measurable gains in speaking proficiency, while the qualitative observations highlighted increased confidence, reduced anxiety, and stronger peer collaboration. Together, these findings affirm that scripted and improvised role-



play are effective strategies for advancing ESL learners' speaking abilities.

Discussion

The findings of this study affirm the effectiveness of employing scripted and improvised role-play techniques to enhance speaking proficiency among ESL students. This discussion connects the study's results across the pre-test, implementation, and post-test phases to established language acquisition theories and relevant previous research.

Pre-Test Phase

The majority of students fell within Level 1, indicating serious limitations pronunciation, fluency, spontaneity, and self-confidence in spoken English. This supports the findings of Kumar et al. (2022), who emphasized that limited speaking opportunities and fear of making mistakes often suppress students' verbal output. Similarly, Dawoud et al. (2024) noted that students with low self-esteem are traditional especially vulnerable in language classrooms, where speaking tasks may induce anxiety rather than fluency. The pre-test confirmed that scaffolding was necessary, particularly for learners with weak grammar and limited vocabulary, echoing Sayow & Marsevani (2024), who highlighted the importance of gradual progression in role-play activities.

Implementation Cycle Phase

The gradual progression from scripted to improvised tasks aligns with Suseno (2024), who argued that progressive drama exposure builds linguistic confidence and interactional competence. The shift observed in Cycle 2—where students became more spontaneous and expressive—mirrors the affective and

cognitive benefits described by Marpaung & Fithriani (2023). The data also echoed Komul's (2023) claim that drama enhances both linguistic elements (pronunciation, vocabulary) and emotional expression.

At the same time, initial difficulties such as hesitancy and reliance on memorization support Wang et al. (2024), who warned that drama can overwhelm shy or insecure learners. Teacher reflection and adaptive adjustments simplifying tasks, restructuring groups, and modeling delivery proved crucial, consistent with Pratiwi, Togatorop, & Marsevani (2024), who stressed the importance of teacher responsiveness.

Post-Test Phase

The post-test confirmed that all students progressed to Level 3 proficiency. This finding aligns with Kumar et al. (2022) and Komul (2023), who observed that lowanxiety environments and drama-based practice significantly enhance speaking fluency and reduce fear. While no student achieved Level 4, the elimination of Level 1 and Level 2 learners represents a baseline shift in classroom performance. This supports Sayow & Marsevani (2024), who found that collaborative role-play with reflection and peer feedback promotes consistent improvement, particularly for high school learners preparing for academic communication.

Evaluation Phase

The iterative nature of CAR was essential in transforming classroom dynamics. The early issues of unclear instructions and script-dependence were resolved through modifications in Cycle 2, validating Dawoud et al. (2024), who emphasized the need for iterative adaptation. By the final cycle, students



demonstrated reduced reliance on memorization and greater comfort in realtime English interactions. The results also resonate with Vygotsky's Sociocultural Theory, as language development occurred through collaborative, interactive activities, and with Krashen's Affective Filter since reduced anxiety Hypothesis, facilitated acquisition. Moreover. balance between structured (scripted) and free (improvised) role-play supported communicative competence frameworks, allowing learners to develop both accuracy and fluency.

CONCLUSION

This study offers important implications at the pedagogical and institutional levels. Pedagogically, teachers are encouraged to integrate both scripted dialogues and improvisational role-plays to balance fluency in accuracy and speaking instruction. These activities should start with simple, scaffolded tasks such as warmup drills, modeling, and contextual aids before progressing to more complex improvisations, thereby addressing learners' varying proficiency levels. Peer collaboration and feedback should also be emphasized to foster a supportive, interactive classroom atmosphere. At the institutional level, schools and curriculum designers are advised to embed dramabased activities as a core component of speaking instruction, provide professional development on drama pedagogy and Classroom Action Research (CAR), and allocate sufficient resources such rehearsal spaces, time, and audio-visual tools to support student engagement. At the research level, future studies recommended to explore the long-term effects of drama-based interventions to

examine whether learners can progress beyond proficiency (Level 3) toward excellence (Level 4). Comparative studies across educational levels and cultural contexts could deepen insights into the adaptability of drama in language learning, while further investigation into affective factors such as anxiety, motivation, and self-efficacy would enrich understanding of how drama fosters both linguistic and psychological growth in ESL/EFL classrooms.

REFERENCES

- Aziz, A. A., & Kashinathan, S. (2021). ESL learners' challenges in speaking English in Malaysian classroom. Development, 10(2), 983-991. 10.6007/IJARPED/v10-i2/10355
- Başaran, S. (2024). How to use drama techniques in english language teaching: guiding principles for teachers. RumeliDE Dil ve Edebiyat Araştırmaları Dergisi, 39, 937–955. https://doi.org/10.29000/rumelide.1 469466
- Dawoud, L., Hasim, Z., Rashid, M., & Saad, M. (2024). Exploring students' perspectives on the use of drama techniques in EFL speaking lessons. Malaysian Online Journal of Educational Sciences, 12(1). https://doi.org/https://doi.org/10.22452/mojes.vol12no1.3
- Dewi, A. M. K., & Hayati, R. (2025). Building confidence and fluency in english through Drama-based Learning. Journal of English Language and Education, 10(4), 41-49.
 - https://doi.org/10.31004/jele.v10i4. 1023



- Hu, Y., & Shu, J. (2025). The effect of drama education on enhancing critical thinking through collaboration and communication. Education Sciences, 15(5), 565.
- Komul, M. (2023). The impact of dramabased instruction on language skills development in EFL contexts. Huele: Journal of Applied Linguistics, Literature and Culture, 3(1), 2023. https://doi.org/10.30598/huele.v3.i1.p09-17
- Kumar, T., Qasim, A., Mansur, S. B., & Shah, A. H. (2022). Improving EFL students' speaking proficiency and self-confidence using drama technique: action research. Cypriot Journal of Educational Sciences, 17(2), 372–383. https://doi.org/10.18844/CJES.V17 I2.6813
- Li, K., & Abdullah, R. (2024). Educational drama in English language education: a review of bibliometric analysis. Innovation in Language Learning and Teaching, 1-19. https://doi.org/10.1080/17501229.2 024.2353786
- Man, C. F., Sharif, S., May, A. L. J., Talin, R., & Bikar Singh, S. S. (2021). The effects of drama-based activities as a language learning tool on learners' motivation in non-malay-medium national schools in malaysia. Indonesian Journal of Applied Linguistics, 10(3), 603–614. https://doi.org/10.17509/ijal.v10i3. 31742
- Marpaung, N. R., & Fithriani, R. (2023). English speaking anxiety among indonesian junior high school students: unveiling causes and

- solutions. TELL-US JOURNAL, 9(1), 146–163. https://doi.org/10.22202/tus.2023.v 9i1.6678
- Marsevani, M., & Habeebanisya, H. (2022).

 Classroom action research: improving speaking skills through work in pair technique. TLEMC (Teaching and Learning English in Multicultural Contexts), 6(1), 16-22.
- Mustamir, M. (2024). Indonesian EFL learners and speaking anxiety: insights from a meta-synthetic analysis. English Review: Journal of English Education, 12(2), 509-518.
- Sayow, E. L. M., & Marsevani, M. (2024). Improving high school students' speaking skill through role play strategy: Classroom action research. English Learning Innovation (englie), 5(1), 132-141.
- Sharma, L. R. (2024). Exploring the landscape of challenges and opportunities in teaching speaking skills. International Journal of Advanced Multidisciplinary Research and Studies, 4(3), 74-78. https://www.multiresearchjournal.c om/admin/uploads/archives/archive -1714913757.pdf
- Suhada, K., Friatin, L. Y., & Herlina, R. (2025). Enhancing students' pronunciation mastery through drama technique in EFL classroom at islamic high school in Tasikmalaya. Journal of English Education Program (JEEP), 12(1), 49.
 - https://doi.org/10.25157/(jeep).v12i 1.17610
- Suseno, E. (2024). Applying online drama script to better speaking proficiency



English Journal

Vol. 19, No. 2; September 2025, pp. 195-205

and vocabulary building. Innovare Journal Of Social Sciences, 12(1). https://doi.org/10.22159/ijss.2024v 12i1.49876

Pratiwi, T. L., Togatorop, S. A., & Marsevani, M. (2024). Enhancing students' speaking skills with wordwall game-based learning: Classroom action research. Journal of English Teaching, Applied

Linguistics and Literatures (JETALL), 7(2), 182-193.

Wang, Y., Derakhshan, A., Ghiasvand, F., & Esfandyari, M. (2024). Exploring Chinese and Iranian EAP students' oral communication apprehension in English: A cross-cultural mixed-methods study. System, 125, 103437.