

Unveiling multi-aspects behind students' Arabic learning experience in creative writing

Zakiyah Arifa¹, Al Lastu Nurul Fatim², Risna Rianti Sari¹, Ahmad Hidayatullah Zarkasyi³,
Dedi Mulyanto³

¹Department of Arabic Language Education, Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Malang, Indonesia

²Language Center, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Malang, Indonesia

³Department of Arabic Language Education, Faculty of Tarbiyah, Universitas Darussalam Gontor, Ponorogo, Indonesia

Article Info

Article history:

Received Jul 5, 2024

Revised Jun 13, 2025

Accepted Jul 25, 2025

Keywords:

Arabic writing

Creative writing

Project based learning

Students' experience

Team-based project

ABSTRACT

The dynamic of team-based project (TBP) in learning stimulates multi-aspects through learning activities and experiences. Due to its complexity, the learning model impacts some skills and aspects. This research aims to identify students' experiences of learning Arabic creative writing in TBP: language, psychology, collaboration, and creativity, and to explain the contribution of those aspects to the learning process. To understand these experiences comprehensively, this research used mixed-method model: concurrent triangulation strategy using descriptive quantitative survey and qualitative case study. Closed and opened questionnaire instruments, interviews, and focused group discussion (FGD) with participants at two Islamic Universities were used as data collection methods to confirm them mutually. Then, data was analyzed using descriptive and reflective analysis. The results found that TBP positively impacted four aspects: vocabulary, grammatical structure, and writing skills improved as language aspects. The psychological aspect can increase criticism, motivation, and self-confidence. The collaborative aspect enhanced skills and talents by providing input, criticism, and suggestions. The creativity aspect is felt by students when generating ideas and imagination during the learning process and completing projects. Through learning Arabic creative writing using TBP, several multi-aspects can be developed. The psychological and collaborative aspects trigger and build language and creativity skills, and this contribution gives meaningful student experiences. These findings indicate that some students' skills can be developed through student-centered learning by integrating TBP and Arabic writing learning, which has implications for improving 21st-century skills. Also, it can be developed more in Arabic language learning as a second/foreign language in Indonesia or other countries.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Zakiyah Arifa

Department of Arabic Language Education, Faculty of Tarbiyah and Teacher Training

Universitas Islam Negeri Maulana Malik Ibrahim Malang

Gajayana Street 50, Malang, Indonesia

Email: arifazakiyah@uin-malang.ac.id

1. INTRODUCTION

The prevalence of team-based project (TBP) learning can significantly increase student engagement, allowing them to share knowledge and information, contributing to discussion and collaborative learning [1]. This emphasis on project learning practices promotes instruction responsive to students' evolving thoughts

and ideas. Students' responsiveness to ideas that develop during learning collaboratively negotiate the experiences, processes of integration, application, and construction of knowledge that drive their collaboration and negotiation to complete the project [2]. Learner engagement in projects inherently constructs the communicative and functional nature of language learning to strengthen linguistic competence and develop critical thinking, problem-solving, and interpersonal skills appropriate to the learning needs of the current century [3], [4].

Simultaneously, TBP has developed 21st-century skills by promoting critical thinking, problem-solving, collaboration, leadership and teamwork, interpersonal communication, information and media literacy, environmental awareness, innovation, and creativity [5]. TBP also emphasized that project development has a positive influence in fostering students' innovative thinking that leads to imagination and creative ideas [6]. The 21st-century skills and mindset development framework promote student learning skills with an inquiry mindset and disposition that can enhance agency, critical thinking, and the broader, quality ideas needed to address the challenges of the various educational standards frameworks that may be faced [7].

Project-based learning (PjBL) has clear benefits for practicing interdisciplinary skills, such as providing opportunities to creatively design solutions to open-ended problems and practicing team skills by working with specialists [8]. Creativity refers to creating products, processes, or even environmental interactions to encourage the learner's cognitive processes [9]. According to Torrance [10], creative thinking includes characteristics that integrate cognitive performance with the ability to strengthen and construct fluency, flexibility, originality, elaboration, and resistance, confirms that forming creative and innovative thinking requires a process of discovery, design, development, and training to a certain stage and level [11]. Thus, creativity relevantly connects self-efficacy and creative ability, which acts as a mediator and recognition to be assessed, measured, and recognized [12], including in Arabic creative writing activities [13].

Arabic language learning in higher education becomes a second language learning that shows the allocation of cognitive abilities implemented in language skills to achieve proficiency. Integrating TBP in language learning stimulates higher-order thinking skills and gives learners responsibility for their learning [14]. As such, second language learning in creative writing activities emphasizes intellectual, language proficiency, and analytical competencies that are developed confidently to include linguistic and logical challenges [15], [16]. In addition, creative writing activities can inspire students to play with language—addressing expectations and perceptions through writing that includes insights and suggestions for taking more reflective creative steps [17]. During creative writing activities, students can consciously come up with original ideas that are constructed through creative texts as a form of manifestation of imagination in providing new responses and interpreting [18].

Collaborative creative writing activities have correlated creative thinking (divergent thinking) and cognitive thinking that occurs not independently [19]. Based on these arguments, the study of creative writing activities through a TBP tendency to: i) review PjBL results on affective, cognitive, and performance aspects as a form of the learning process that produces products based on their experiences confidently [2], [20]; ii) the flexibility of TBP has creatively and interactively shaped patterns of emotion, metacognition, and self-concept tailored to the diverse preferences and learning styles of writing activities such as idea generation, story formation, and reviewing [21], [22]; iii) creative writing supports highly productive learner understanding and assessment outcomes by including aspects of text structure, purpose, and language conventions as explicit elements in producing creative writing [23].

The tendency of some previous studies opens up opportunities for this research to complement previous studies and explore TBP in Arabic creative writing activities more deeply, which focus on identifying four aspects: language, psychology, collaboration, and creativity based on learning experiences from student perceptions. It is also known that these four aspects have their respective roles in students learning Arabic as a foreign language in Indonesia. Foreign language learning is socially constructed using various linguistic features and language experiences integrated into students extended linguistic repertoires as creative writing learning outcomes [24]. It also requires an awareness of the importance of the relationship of psychological aspects to second language learning that can positively construct academic engagement, emotional regulation, enjoyment, tenacity, compassionate pedagogy, resilience, and well-being by revealing desirable second language learning and teaching experiences [25]. In addition, aspects of collaboration and creativity include key 21st-century nontechnical skills competencies in conception, assessment, and valorization as pedagogical goals and policy promotion against future learning challenges [26]. Thus, the framework of this research is focused on two things. First, focusing on the four aspects (language, psychology, collaboration, and creativity) will reveal the dominance of aspects raised based on students' learning experience in TBP. Second, the disclosure of student learning experiences from the four aspects is based on the perceptions of students who contribute to the learning process using TBP.

Identifying students' perceptions of TBP in Arabic creative writing activities has influenced their individual and group experiences and capabilities. The argument is that TBP connects learning by opening up a landscape of generic competencies that are based mainly on experience to face any challenges in completing a project [27]. This research has been carried out implementing the TBP in Arabic creative writing activities accompanied by preparing instruments in the form of test questions that have been developed to measure the creativity of the creative thinking model based on Torrance test creativity thinking (TTCT) combined with the Arabic creative writing test as the research outcome. The prevalence of TBP implementation actively engages the learner, which allows for stimulation and support that draws on experiences and learning outcomes to construct learner perceptions [28]. Based on these arguments, mixed methods were used to measure and map the learning experience to students' contribution, requiring quantitative and qualitative methods to understand and reveal how the learning experience contributes to the TBP learning process. This study has research questions such as:

- What are students' perceptions of the Arabic learning experience in creative writing using TBP in four aspects: language, psychology, collaboration, and creativity?
- How does the learning experience from four aspects contribute to the learning process using TBP according to students' perceptions?

2. METHOD

2.1. Research design and procedure

To describe and understand the students' experiences comprehensively, this research uses mixed methods, namely descriptive quantitative survey design and qualitative case study design with a concurrent triangulation mixed method, which was initiated by Creswell and Clark [29]. The researcher collects quantitative and qualitative data concurrently for the four aspects of students' perception in learning Arabic writing using PjBL and then compares these two to determine whether there is convergence, confirmation, disconfirmation, cross-validation, or some combination. Collecting quantitative data with a survey design using closed questionnaire instruments and qualitative data simultaneously with case studies using open questionnaire data collection methods, interviews, and focused group discussion (FGD) to mutually confirm and validate the data. In this research, mixing occurs at the interpretation and discussion stages. This combination method is used to describe and map the perception and to understand how the four aspects, language, psychology, collaboration, and creativity, contribute to the learning process and increase the skills, which can only be obtained from qualitative data. Mixing is done by transforming one type of data with another. Still, the quantitative data was displayed when presenting the results, followed by qualitative data that supported or rejected the results. This concurrent triangulation strategy produces substantive and validated quantitative and qualitative data findings.

2.2. Participant

The students as participants in the learning process using exemplary participant cases with purposeful sampling techniques with exemplary cases suggested by Yin [30] at two Islamic universities in Indonesia. There are 12 students from Universitas Islam Negeri Maulana Malik Ibrahim Malang (UIN Malang) and 10 students from Universitas Darussalam (UNIDA) Gontor, totaling 22 students selected by the population who take complete courses in the *Mahārah Kitābah* (writing skill) course that implements TBP in creative writing. This sample was chosen with the criteria of having experience in following TBP, which was carried out for one semester at these two universities in the learning design of implementing TBP learning design in Arabic creative writing based on information from the head of the department and lecturers and voluntarily selected by declaring participation. The selection of students as respondents and participants was purposive, with the criteria of being actively involved in participating, consisting of 12 out of 17 students at UIN Malang and 10 out of 13 students at UNIDA. Not all students could be taken because some were less credible for collecting overall data and were eliminated from the respondents. Perception data was obtained from participants using a quantitative questionnaire with a Likert scale. It was followed by reflection during learning with interviews and perceptions of experiences after learning with open questionnaires and continued with interviews and focus group discussions. The description of participants is shown in Table 1.

Table 1. Description of participant students

Class	University	Student	Gender	Age	Level of ability
A2 (grade 4)	UIN Malang	5	Male	20-21	Beginner-intermediate
		7	Female		
A Rabithah (grade 6)	UNIDA Gontor	10	Male	21-23	Intermediate-early advanced
Total		22			

2.3. Data collection

Quantitative data was collected by distributing closed questionnaires to students. The questionnaire consists of 4 aspects, language, psychological, collaborative, and creative, using 5 Likert scales: strongly agree, agree, sufficient, disagree, and strongly disagree. The assumption test on the instrument shows that the instrument for measuring perception with 15 items (3 items language aspects, 2 items psychological aspects, 5 items collaborative aspects, and 5 items creativity aspects) statistically has sufficient validity using Pearson correlation with a range of 0.774-0.934, and has adequate reliability using Cronbach alpha of 0.784. From this questionnaire, numerical values are calculated, and mean and average percentages are calculated and displayed. Meanwhile, qualitative data was carried out simultaneously with an open questionnaire, followed by interviews and focus group discussions to explore further student perceptions about the learning experience using TBP in creative writing. This data collection technique also validates and strengthens quantitative data in case experiences and perceptions are explained in more depth. Both types of combination data were collected over a period of 1 semester during the learning process. Interviews and FGDs were used to explore the variables or aspects analyzed to triangulate the research results based on quantitative and qualitative data [31].

2.4. Data analysis

Quantitative data from the survey with questionnaire was analyzed using descriptive analysis of the mean and percentage of each aspect to measure and statistically describe the scale in four aspects that can be mapped to the results. Then, the qualitative data was analyzed using reflective analysis by narrating the perceptions of students' experiences while learning to understand and explain how these four aspects contribute to learning Arabic writing and improving skills. This perception was initially obtained with an open questionnaire on students followed by semi-structured interviews and focus group interviews during and after learning so that more in-depth data was obtained with individual and group interviews and cross-checking data between research subjects. The results of the interviews were then transcribed, classified, and analyzed to get a portrait of student experiences and a portrait of student perceptions of this learning model [32]. The results of the analysis are then discussed and interpreted using 21st-century learning theories, learning psychology, and student development. This combination of analysis can explore the map of student perception with quantitative analysis and, at the same time, can understand and triangulate how the four aspects contribute to the learning process with qualitative analysis, then that credible findings are obtained.

3. RESULTS AND DISCUSSION

Student perceptions in learning Arabic creative writing using a TBP show that there are responses in the form of assessments from each individual, where these responses and assessments are shown to be based on experiences and learning outcomes during the learning process [33]. The results of this student perception assessment were taken from two universities, UIN Malang, which had 12 students, and UNIDA Gontor, which had 10 students. Apart from that, the assessment of student perceptions is reviewed based on four aspects: language, psychology, collaboration, and creativity aspects.

3.1. Student perceptions of the Arabic learning experience in creative writing using TBP

3.1.1. Language aspects

Writing skills are an activity to develop language abilities that require a process of strategic use of language, structural accuracy, and communicative potential [33]. During the learning process, language aspects have an important role that needs to be reviewed based on student perceptions, as shown in Table 2. Table 2 shows that the assessment of students from UIN Malang in the language aspect has a percentage result of 87.7%. Meanwhile, the percentage results for student perceptions from UNIDA Gontor in Table 2 are also similar to the previous percentage (88%). The perceptions of students from these two universities show a tendency to interpret the percentages that can be identified as agreeing or good. The percentage results in the table confirm the positive responses from students toward learning Arabic creative writing using TBP. Learning creative writing in Arabic using a TBP has great potential in developing and improving students' language skills. The positive responses also revealed increased language skills in completing the project by expecting independent students to gain a deep understanding of knowledge, develop a high level of learning, and increase motivation to learn [34].

3.1.2. Psychological aspects

Implementing learning using TBP empirically does not only focus on each student but also focuses on team performance. In this case, it is necessary to identify the psychological aspects of each team member or student. This case is because the team performance process involves situational factors and a relatively

broad organizational context [35], where this allows for problems or solutions to the issues that arise. As per this understanding, in the learning process using TBP, assessments are carried out in psychological aspects, as presented in Table 3.

Table 2. Assessment of student language aspects

No	Language aspects	University	SA	A	S	D	SD	Mean	Total	
1.	Review of written and presentation results based on peer review	UIN Malang	1	9	2	0	0	3.9	47	
			7	5	0	0	0	4.6	55	
			8	4	0	0	0	4.7	56	
			Total measurement						13.2	158
			Average and percentage						4.4	87.7%
2.	Increasing vocabulary and grammatical skills	UNIDA Gontor	3	5	2	0	0	4.1	41	
3.	Improving creative writing skills		4	6	0	0	0	4.4	44	
			7	3	0	0	0	4.7	47	
			Total measurement						13.2	132
			Average and percentage						4.4	88%

(SA=Strongly agree, A=Agree, S=Sufficient, D=Disagree, SD=Strongly disagree)

Table 3. Assessment of student psychological aspects

No.	Psychological aspects	University	SA	A	S	D	SD	Mean	Total	
1.	Having difficulty preparing a presentation	UIN Malang	3	4	4	1	0	3.8	45	
			5	6	1	0	0	4.3	52	
			Total measurement						8.1	97
			Average and percentage						4	75%
2.	Working in groups can increase confidence in expressing creative ideas	UNIDA Gontor	3	4	3	1	0	4	40	
			7	3	0	0	0	4.7	47	
			Total measurement						8.7	87
			Average and percentage						4.35	87%

(SA=Strongly agree, A=Agree, S=Sufficient, D=Disagree, SD=Strongly disagree)

All students showed psychological aspect assessment results that were similar to the percentage of 75% of UIN students and 87% of UNIDA students. This creative writing project's learning process and completion have profound implications for their self-efficacy and that of the group, where students have high confidence in expressing new ideas or creative ideas during the learning process. Group work arrangements facilitate collaborative discussions and help-seeking behaviors among peers that may be particularly beneficial for building student self-efficacy [36]. However, it cannot be denied that problems can arise, whether personal or group.

3.1.3. Collaboration aspects

The collaboration or teamwork aspect emphasizes continuous group interaction during project activities. This is done to review the progress of the projects that have been implemented. This team or collaborative work involves all parties or team members in realizing the project to run well. Apart from that, in the process of learning to write using a TBP, the collaborative aspects carried out by each student are identified, as shown in Table 4.

Table 3 shows an average of 87% in the collaborative aspect assessment, where the average result is still relatively low compared to the average in Table 2, which reached 94%. On the aspect of collaboration, it was also revealed that students enjoyed themselves while completing the project task, where enjoyment was obtained from students' interaction during learning using collaboration by emphasizing their knowledge and experience and enjoying considerable autonomy to work collaboratively [37]. However, the assessment on this collaborative aspect has the highest score on the same point, namely teamwork in developing creative ideas. Indicates that each student agrees and positively influences teamwork or collaboration with their group members during the project completion process.

3.1.4. Creativity aspects

Creativity in the form of a team has a relationship between the individual creativity of each member and the creativity of the group or team itself. This is done based on the elaboration of information to the group as the main component for mutual understanding and tolerance, where this is done by supporting the distribution of creative ideas and predictions combined into team creativity [38]. To identify students' perceptions of the creativity they have acquired during the learning process, Table 5 shows the assessing aspects of creativity from two universities.

Table 4. Assessment of student collaborative aspects

No	Collaborative aspects	University	SA	A	S	D	SD	Mean	Total
1.	Development of structured cooperation	UIN Malang	4	7	1	0	0	4.2	51
			7	5	0	0	0	4.6	55
			6	4	2	0	0	4.3	52
2.	Teamwork in developing creative ideas		4	6	2	0	0	4.2	50
			5	7	0	0	0	4.4	53
			Total measurement					21.7	261
			Average and percentage					4.34	87%
3.	Review and discuss the results of creative writing together with the team	UNIDA Gontor	8	2	0	0	0	4.8	48
			9	1	0	0	0	4.9	49
4.	Enjoying the teamwork		6	4	0	0	0	4.6	46
			5	4	1	0	0	4.4	44
5.	Creative writing results are better done in groups than individually		8	2	0	0	0	4.8	48
			Total measurement					23.5	235
			Average and percentage					4.7	94%

(SA=Strongly agree, A=Agree, S=Sufficient, D=Disagree, SD=Strongly disagree)

Table 5. Assessment of student creativity aspects

No.	Creativity aspects	University	SA	A	S	D	SD	Mean	Total
1.	Enjoying the process of expressing creative ideas	UIN Malang	7	4	1	0	0	4.5	54
			7	4	1	0	0	4.5	54
			6	6	0	0	0	4.5	54
2.	Enjoying the results of creativity in group work		6	4	2	0	0	4.3	52
			6	6	0	0	0	4.5	54
			Total measurement					22.3	268
			Average and percentage					4.46	89.3%
3.	Suggestions or comments from colleagues can help develop creativity	UNIDA Gontor	7	3	0	0	0	4.7	47
			9	1	0	0	0	4.9	49
4.	Able to present creativity through media		6	3	1	0	0	4.5	45
			5	3	2	0	0	4.3	43
5.	Provides the opportunity to express individual creativity in projects practically		6	4	0	0	0	4.6	46
			Total measurement					23	230
			Average and percentage					4.6	92%

(SA=Strongly agree, A=Agree, S=Sufficient, D=Disagree, SD=Strongly disagree)

The two assessments for aspects of student creativity show a percentage comparison that is not much different from the assessment of the previous aspects; the perception of UNIDA students is higher, with a percentage of 92%, when compared to the perception of UIN students who get a rate of 89.3%. In the percentage results, the perception of UNIDA students shows the highest score in one of its components, namely enjoying the results of creativity during the group work process, with a total score of 49. In contrast to the perception of UIN students, they have the same total score, 54 in the four components. However, one component has the lowest score, according to students from UIN and UNIDA, which is being able to present creativity through the media. Students enjoy every activity that can attract their interests and talents in developing their ideas and creativity. The role of enjoyment in group creativity tasks refers to the creative process and the improvisation of experiences to reflect on their creativity autonomously under conditioned circumstances [39].

3.2. The learning experience in four aspects according to student perception contributes to the learning process using team project-based learning

3.2.1. Language aspects

In assessing language aspects, three components are reviewed: i) reviewing written results from peers; ii) increasing vocabulary and grammatical skills; and iii) increasing creative writing skills. Of these three components, students from both universities scored the highest on component three, improving creative writing skills. Meanwhile, the element with the lowest score is component number one, reviewing written results with colleagues. This indicates that students perceive their creative writing skills well during learning.

“In my opinion, the use of this team-based project is beneficial and influences me because with this teamwork, when errors occur in the writing that is written, it can be immediately corrected by friends and ustadzāh (female teacher), apart from adding new mufradāt (vocabularies), I also feel helped in justifying the existing tarkīb (structure). It is still wrong and helps me, who usually does not have a good command of writing Arabic. This makes my writing skills even better.”
(SH, 2023)

“The use of a team-based project has influenced my mufradāt, tarkīb, and ta'birat abilities because this team-based project has trained me to create Arabic words according to the correct tarkīb.” (KK, 2023)

The expressions from UIN Malang students (SH and KK) state that the process of learning creative writing using a TBP includes language aspects that can help and review the results of writing together with colleagues and lecturers. During the learning process, each student is given the right and authority to review the writings of other friends. The results of the review are then further examined by the lecturer. The entire process is carried out to confirm the abilities and capabilities of students and their colleagues in the language aspect, which later can also be a process of understanding and improving language for each student. Each student understands and enhances language by reviewing errors in grammatical structures and writing relatively new vocabulary or writing errors. Students with poor language skills can better understand and correct the results of previous understanding so that they are corrected according to the language structure of Arabic. Especially for students with high abilities in the language aspect, these students can help review the writing of their colleagues.

“The use of team-based projects is very good for adding new mufradāt and understanding tarkīb because we express it in the creativity of this writing, and I also hope this article can be useful for readers.” (AA, 2023)

“Regarding learning language elements, team-based creative writing projects can improve all language aspects of writing because of the practice. Making - correcting - fixing these things will help improve.” (SNR, 2023)

Students from UNIDA (AA and SNR) stated that language elements are essential in implementing creative writing learning. Every individual needs to understand language elements by the language structure of Arabic, which will later be expressed in absolute terms and ideas expressed in written form. Students from UNIDA also conduct reviews with their colleagues, as UIN students do in every creative writing they produce. Reviewing creative writing results is carried out in several stages, such as creating creative writing, correcting a friend's writing, and then fixing or revising based on input from previous friends. This review process is not carried out just once. Still, it is carried out repeatedly until each student's writing results can be said to follow the Arabic language's grammatical structure. The final stage in reviewing written results is carried out by the lecturer, who reviews the entire student's writing by providing detailed improvements.

Overall, the assessment results in the language aspect indicated that it was good in every process, whether it was done with peers or lecturers. The assessment process in the language aspect is carried out in the form of reviewing and justifying the grammatical structure by implementing the structural components of Arabic based on the mastery of syntax, lexical, and grammar in each composition by the rules and style of Arabic [40]. In addition, each process of this activity also provides feedback for students to improve the quality of their writing independently, which is undoubtedly due to Arabic's grammatical structure. Creative writing following the language components requires high performance and professionalism in every implementation process. In practice, the writing process is not only carried out to improve writing results in language variables but also to control and verify comprehension problems in connecting and interpreting ideas in the form of writing [41]. Thus, students will understand and be sensitive in representing their writing according to reasonable and correct language structures and rules.

3.2.2. Psychological aspects

However, this can be overcome by discussing with each other, helping each other, and understanding each other's limitations of each group member. The psychological aspect is essential to explain. The students express their feelings in learning experiences as:

“I believe using team-based projects in creative writing can increase motivation and self-confidence. Why is that? Because those who were originally afraid of making mistakes became a little braver in expressing their ideas. Not everyone can speak in public but can express their heart's content in writing, so shy friends feel they have done good work and are starting to feel valuable. Apart from that, friends always encourage us when working so that we are infected by the enthusiasm of our friends, and make us realize that there is still much knowledge that we do not know, especially in writing Arabic texts. Now this makes me learn more, come on, learn, you can do it. ... and because there is a deadline, we are encouraged and challenged, which motivates us to complete the task as best as possible.” (SH, 2023)

“Having the right environment can certainly increase a person’s potential. A small example is learning using the team-based project method, where members support each member to develop and increase their potential.” (JMA, 2023)

According to UIN students, creative writing skills have empirically increased their motivation and self-confidence while learning through TBP. This happens when expressing ideas; each student is given the role and right to express their ideas in front of a group of friends as a discussion process for developing creative ideas. Additionally, the group collaboration during the learning process and completion of this project has implicitly given each student the courage to ask questions or speak up to express their ideas, talents, and even limitations or problems experienced individually or in groups.

“It really improves because of input from the team and criticism; we can correct a mistake, and it is outstanding in learning cooperative traits between teams.” (ZH, 2023)

“From this, it can also be seen that many of my friends have hidden talents in writing, but many are not confident in what they write, so in this project, motivation and self-confidence began to emerge thanks to the support of their group of friends.” (DHM, 2023)

As with previous student perceptions, UNIDA students also believe that during the group or teamwork process, they can increase motivation and self-confidence and provide input and criticism as a form of solution or reconstruction of errors that may occur during the learning process. Apart from that, teamwork also fosters a cooperative nature for all members to complete projects together with the best results by helping each other and supporting each other. Without cooperation from all team members, there will never be the best results in completing any group tasks.

Psychologically, the relationship within the scope of team or group cooperation will work well if all group members have the same relationship orientation in improving learning and team performance [42]. In each process, verifying the dimension of behavioral differences as a determinant in developing team or group creativity is possible. Thus, this psychological aspect of the teamwork system represents the perspective that the extent to which team members perceive the group as a safe environment for individual risk-taking is a significant factor in the team’s success.

3.2.3. Collaborative aspects

Apart from that, although the assessment of the collaborative aspect of UIN students is relatively low compared to the assessment results of UNIDA students, this happens for several reasons. First, UIN students need to be more able to accommodate time appropriately. This is different from UNIDA students, who can better accommodate time to gather together to complete assignments because all students live in the same environment, namely the dormitory. Second, UIN students are more likely to complete projects by distributing tasks to each individual. In contrast, UNIDA students are more likely to complete projects by dividing tasks with several members in each task. This can influence assessment in a collaboration or teamwork system, where the assessment is based on each student’s experience.

“We can improve the chemistry between team members, where each individual has talents in their respective fields; for example, some are skilled in design, and some are skilled in content and so on.” (FH, 2023)

“Learning using this method can improve the abilities of each group member because each member has different ideas and ideas which can be used as a reference for each member to start writing their work so that studying as a group can help each member.” (JMA, 2023)

During the collaboration process, UIN students felt that each group member had abilities and talents in varied fields. These varied differences in skills and talents create new chemistry for each group member, where this chemistry becomes a form of compatibility for each individual to improve ideas and thoughts in completing the project. Each individual’s talent in completing projects such as graphic design, content, photography, and so on is also a form of compatibility. The varied talents of each individual, when combined into one, will give rise to new ideas and ideas. This is also in line with students’ perceptions that differences or variations in talents and abilities can give rise to new ideas and ideas and be different from others. These ideas and notions also become a reference for the group, especially for group members completing creative writing projects. Group members also ask questions or help each other if they experience problems during project completion.

“Yes, in my opinion, team-based project users can improve their team’s collaborative skills. Because of my experience in carrying out this project, our team experienced an increase in their abilities. The project communicated well, and input and criticism were mutually accepted and evaluated.” (SNR, 2023)

“In my opinion, teamwork has always relied on friends, so intensive group division is needed.” (ZH, 2023)

Similar to previous UIN Malang students’ perceptions regarding collaboration, students from UNIDA also perceive that collaborative aspects can improve the skills and talents of each group member. This improvement and development were obtained through many discussions with each group member and the lecturer, where in these discussions, various processes were carried out, such as providing input, criticism, and suggestions as a form of agreement and evaluation. However, team or group work requires a high level of responsibility from each group member. If group members are supportive, this can help the group’s performance. So, according to students’ perceptions, the selection of group members needs to be carried out and emphasized in intensive distribution of performance to minimize members’ lack of contribution in completing the project. Team or group work emphasizes the interaction between group members to carry out and determine the progress of each project activity. Each member has the authority to carry out and complete their respective tasks based on the previously agreed-upon conceptualization. In this case, the designed cooperative or collaborative process reveals individual accountability and positive strategies to achieve the best group performance [43].

3.2.4. Creativity aspects

In its implementation, of course, it has its problems, where some students experience problems using and producing media to present the results of their projects. These problems tend to be found in limited completion time, technical obstacles, and members’ limitations in understanding the use of graphic media.

“With this creative writing assignment, I was able to understand a little bit, ‘Oo my friend likes this, oo he likes this’ (knowing what my friend’s creativity is like, and I got some creative ideas that I never thought of before.” (HI, 2023)

“In my opinion, using team-based projects in creative writing can increase creativity; why is that? This project is one of the media that facilitates us to express ideas as freely as possible while still being organized. For me myself, this assignment feels very helpful because it sharpened an old hobby that I stopped doing, and because of this assignment, I returned to writing even with. The new challenge is writing in Arabic, so I gained new knowledge not only about writing in Indonesian but also being able to write creatively using Arabic, the natural language, Alhamdulillah.” (SH, 2023)

For students, learning using TBP has implicitly attracted creative ideas and ideas that they had not even thought of before. This indicates that the emergence of innovative ideas needs to be triggered by a creative stimulus, which can also be compiled in various activities or tasks. Apart from that, students understand the emergence and limits of their creativity, which enables them to understand their peers who, of course, have different and varied levels of creativity. The expression of creative ideas and thoughts in the form of this project is entirely unlimited, where each group member has the right to express their innovative ideas, which all group members then agree upon as a determining reference for completing the project. This freedom allows students to be truly organized and assisted in representing the results of their projects. Apart from that, every student has hidden talents and abilities that sometimes cannot be fully channeled. This can also enable students to fully express their ideas, talents, and skills when completing projects. Especially in creative writing skills in Arabic, which will undoubtedly challenge each student and group.

“From a creative perspective, it is very good because we will unite all thoughts into one product, producing something new.” (DHM, 2023)

“Of course, by learning to use this method, in my opinion, you can improve your skills and creativity in writing because studying as a team or group can help you find new ideas or combine exciting ideas from the group itself.” (AA, 2023)

The creativity students feel during the learning process and completing projects is felt individually and by their team or group. This reveals that the implications of expressing student creativity do not just appear by themselves but are also triggered by discussions and agreements within the group to draw creative ideas from each member. Thus, group creativity is based on combining ideas and concepts, which can find and determine team or group creativity while improving student skills.

In the context of creative writing, each student will present their initially expressed ideas by constructing new interpretations and responses from each group member in the form of text [18]. Each student is given the space and role according to their talents to imagine [44], choose structures and methods, organize ideas and problems, formulate well, and develop their language skills expressively based on experience in the form of writing or text. The whole stage is an essential process for students or teams to select, combine, organize, and develop new ideas that will be interpreted using supporting media.

Creativity in teams or groups structurally fosters experiences for members that inclusively exhibit two specific behaviors: i) stimulating all team members to express their unique viewpoints and perspectives and ii) facilitating belief in the value of difference or diversity within the team [45]. Positively, group work in expressing creativity relates to the leader's inclusion of the group in discovering, fostering, defining, and developing the team's creativity as the result of a group. Thus, creative development in a group becomes the domain of each member to generate new ideas helpful for the team as a performance, which is simultaneously done to be interdependent [46].

The results of the triangulation of quantitative and qualitative analysis can be described in Figure 1, which explain how learning Arabic creative writing using TBP contributes four aspects. The relation among these aspects shows that psychological aspects which contain criticism, motivation, and self-confidence have the main role on students' perspective while learning creative writing using TBP. The psychological aspects combine with collaboration aspects generated and enhanced the language and creativity aspects.

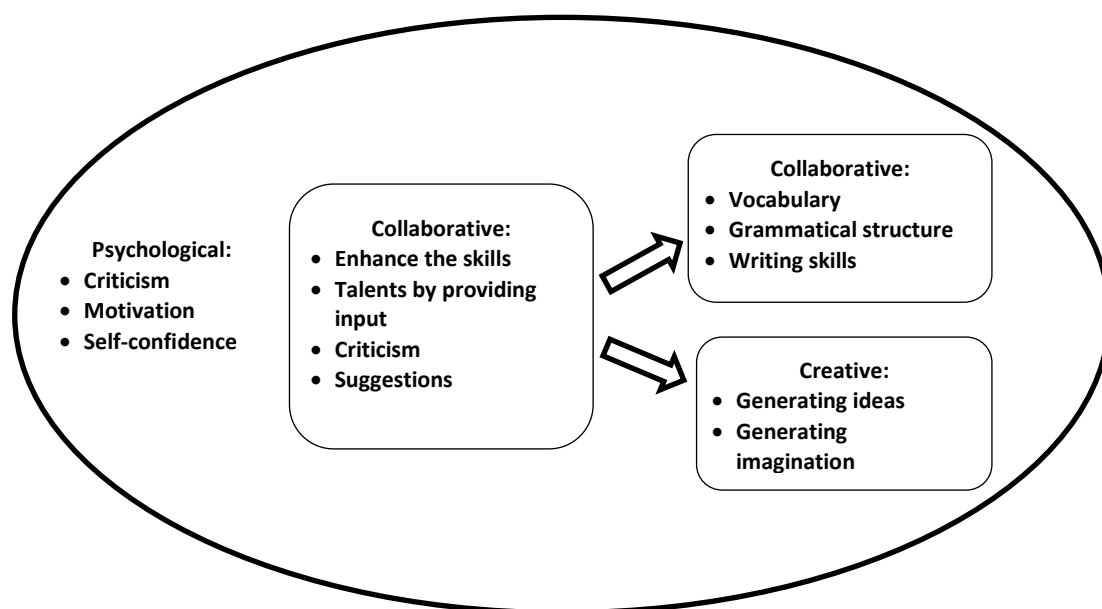


Figure 1. TBP contribution in four aspects

Figure 1 displays the contribution of TBP in the four aspects of Arabic language learning on creative writing skills. These contributions show that psychological and collaborative aspects can play an essential role in TBP and provide opportunities for language skills and creativity based on feedback and reflective modification. It also shows the findings of this study that utilizing TBP in Arabic language learning in creative writing skills verifies students' experiences. When students feel psychologically comfortable and collaborative in completing projects, they can simultaneously improve their language skills and creativity. This means that the psychological and collaborative aspects are interconnected to support a sense of comfort and security for students to actively engage in learning that also supports the improvement of language and creativity aspects by the 21st-century skills objectives [5].

Psychological orientation and creativity in TBP form a positive correlation influencing individual factors. The psychological aspects of TBP comprehensively transform passive learning into self-directed learning that explores self-empowerment, subjective initiative, motivation, confidence, and a sense of responsibility to complete the project [47]. In particular, the collaboration aspect of TBP verifies the role of improving skills and talents as a form of feedback, criticism, and suggestions. The role of collaboration in TBP encourages students' active involvement in learning by allowing them to share knowledge, information, and discussion [1].

Positive psychological and creativity correlations create opportunities to improve aspects of language and creativity. The contribution of language aspects to second language learning in TBP is designed to create a student-centered experience. It offers an essential structure of vocabulary skills and grammatical structures [48]. Improving students' language skills is also inseparable from the role of creativity as the unraveling of imaginative solutions and creative ideas that encompass a gamut of experiences, adventures, curiosities, and challenges [49].

Based on the contributions of the four aspects, the language aspect, the psychological aspect, the collaborative aspect, and the creativity aspect indicate student perceptions of the use of TBP, where student perceptions are not only shown in the form of assessments but also as an interpretation of experiences from personal relationships and interactions during the process of involvement in learning as a determinant of student academic achievement [50]. The results of this student perspective become empirical evidence in the form of service quality that has a positive relationship based on student satisfaction and loyalty as perceived during learning [51].

Overall, students' perceptions of using TBP have good results in improving Arabic writing creativity. It also shows the findings based on the perceptions of students from both universities that creativity in this group form identifies the relationship of group efficacy, psychological calmness, group interaction, and group creativity in TBP learning, which aligns with You's statement [52]. In addition, student engagement from these two universities has identified lecturers as mentors or peers in promoting teaching that is responsive to expressing ideas, brainstorming, discussing, and sharing frustrations during product completion [1]. The identification also confirms that creative writing enhances personal and group creativity. The team's creativity constructs a conservative diversity relationship between self-efficacy and innovative performance as an essential factor influencing knowledge, perspectives, and problem-solving [53]. Individual creativity becomes team creativity to be able to depend on each other in the process of completing tasks [54].

The team's success in completing the Arabic creative writing project is inseparable from communication, which becomes a set of visual signs on the language aspect, which is also determined based on the agreement, habits, and experience to express, imagine, and have a careful perspective. In this case, students have produced projects through a formative feedback process demonstrated by practice to reflect on themselves and think critically, creatively, and confidently. During the process, students also feel motivated to continue learning by contributing to the improvement of their writing skills, competence, and self-efficacy in controlling logical, language, and cognitive skills [55]. These findings indicate that four aspects can be enhanced and improved through student-centered learning by utilizing TBP and Arabic creative writing, which has implications for developing 21st-century skills.

4. CONCLUSION

Students' perceptions of learning to write creatively in Arabic creative writing using a TBP show that there is a response in the form of an assessment from each individual, which is divided into four aspects, such as language aspects; the results of the assessment indicate that each process is good in collaboration with colleagues and lecturers. This feedback helps students improve the quality of their writing independently, which, of course, follows the grammatical structure of the Arabic language. The psychological aspect can increase motivation, self-confidence, and self-efficacy, and it can be accompanied by providing input and criticism as a form of solution or reconstruction of errors that may occur during the learning process. The collaborative aspect is verified to enhance the skills and talents of each group member through many discussions with each group member and the lecturer using various methods such as providing input, criticism, and suggestions as a form of agreement and evaluation. The creativity aspect felt by students during the learning process and completing projects is felt individually and by their team or group. It is also triggered by discussions and agreements within the group to draw creative ideas from each other. Psychological and collaborative aspects can contribute significantly to TBP and provide language skills and creativity opportunities. This also shows this study's findings that using TBP in Arabic language learning in creative writing skills can give meaningful student experiences.

This research is limited to specific material in creative writing and can be further developed into other material. Its limitations include particular language skills, writing, and creative thinking skills. It has yet to measure other language skills or aspects of other 21st-century skills. This Research is also limited to implementing learning at the tertiary level for students who can study independently and those majoring in Arabic learning. The researcher hopes future researchers can develop learning research using other research designs to obtain more complex and comprehensive research results with quantitative and qualitative data to mutually strengthen learning processes and outcomes, especially in Arabic and other foreign languages in Indonesia or other countries.

ACKNOWLEDGEMENTS

The authors thank the Universitas Islam Negeri Maulana Malik Ibrahim Malang students and Universitas Darussalam Gontor, who allowed them to implement the TBP Arabic creative writing and participate in this research. In most cases, the authors also thank Institute for Research and Community Service (LP2M) Universitas Islam Negeri Maulana Malik Ibrahim Malang.

FUNDING INFORMATION

This research was funded by the Institute for Research and Community Service (Lembaga Penelitian dan Pengabdian Masyarakat/LP2M) Universitas Islam Negeri Maulana Malik Ibrahim Malang, which is a project funded by Rector research grant decision letter number 673-year 2023 and with research contract number 1129A/LP2M/PPK/TL.00/03/2023.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Zakiyah Arifa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
Al Lastu Nurul Fatim	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Risna Rianti Sari	✓		✓	✓			✓	✓	✓					
Ahmad Hidayatullah		✓				✓		✓		✓	✓			
Zarkasyi														
Dedi Mulyanto			✓		✓		✓	✓	✓				✓	✓

C : **C**onceptualization

M : **M**ethodology

So : **S**oftware

Va : **V**alidation

Fo : **F**ormal analysis

I : **I**nvestigation

R : **R**esources

D : **D**ata Curation

O : **O**riginal Draft

E : **E**diting

Vi : **V**isualization

Su : **S**upervision

P : **P**roject administration

Fu : **F**unding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

DATA AVAILABILITY

The data presented in this study are available on request from the corresponding author [ZA]. The data, which contain information that could compromise the privacy of research participants, are not publicly available due to certain restrictions.

REFERENCES




- [1] M. A. Almulla, "The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning," *SAGE Open*, vol. 10, no. 3, pp. 2158–2440, Jul. 2020, doi: 10.1177/2158244020938702.
- [2] P. Guo, N. Saab, L. S. Post, and W. Admiraal, "A review of project-based learning in higher education: Student outcomes and measures," *International Journal of Educational Research*, vol. 102, p. 101586, 2020, doi: 10.1016/j.ijer.2020.101586.
- [3] L. T. Praba, L. P. Artini, and D. P. Ramendra, "Project-based learning and writing skill in EFL: are they related?" in *SHS Web of Conferences*, p. 00059, Jan. 2018, doi: 10.1051/shsconf/20184200059.
- [4] V. Thomson and M. R. Yedidi, "A practical approach to critical thinking among EFL learners," *International Journal of Technology Transfer and Commercialisation*, vol. 17, no. 1, pp. 43–55, 2020, doi: 10.1504/ijttc.2020.106560.
- [5] M. Baran, M. Baran, F. Karakoyun, and A. Maskan, "The influence of project-based STEM (PjBL-STEM) applications on the development of 21st century skills," *Journal of Turkish Science Education*, vol. 18, no. 4, pp. 798–815, Dec. 2021, doi: 10.36681/tused.2021.104.
- [6] M. Barak and S. Yuan, "A cultural perspective to project-based learning and the cultivation of innovative thinking," *Thinking Skills and Creativity*, vol. 39, p. 100766, Mar. 2021, doi: 10.1016/j.tsc.2020.100766.

- [7] V. Seevaratnam, D. Gannaway, and J. Lodge, "Design thinking-learning and lifelong learning for employability in the 21st century," *Journal of Teaching and Learning for Graduate Employability*, vol. 14, no. 1, pp. 167–186, Jul. 2023, doi: 10.21153/JTLGE2023VOL14NO1ART1631.
- [8] M. MacLeod and J. T. van der Veen, "Scaffolding interdisciplinary project-based learning: a case study," *European Journal of Engineering Education*, vol. 45, no. 3, pp. 363–377, May 2020, doi: 10.1080/03043797.2019.1646210.
- [9] S. Lv, C. Chen, W. Zheng, and Y. Zhu, "The relationship between study engagement and critical thinking among higher vocational college students in china: a longitudinal study," *Psychology Research and Behavior Management*, vol. 15, pp. 2989–3002, Oct. 2022, doi: 10.2147/PRBM.S386780.
- [10] E. P. Torrance, *Creative learning and teaching*. New York: Harper Collins, 1970.
- [11] X. M. Chen, "Integration of creative thinking and critical thinking to improve geosciences education," *Geography Teacher*, vol. 18, no. 1, pp. 19–23, Jan. 2021, doi: 10.1080/19338341.2021.1875256.
- [12] M. Černe, A. Bunjak, S. I. Wong, and S. S. Moh'd, "I'm creative and deserving! From self-rated creativity to creative recognition," *Creativity and Innovation Management*, vol. 31, no. 4, pp. 664–679, Dec. 2022, doi: 10.1111/caim.12518.
- [13] Z. Arifa, R. R. Sari, A. L. N. Fatim, D. Hilmi, M. Y. Anis, and A. C. Setiyadi, "Development of Torrance test creative thinking verbal (TTCT-V) instrument for measuring Arabic creative writing," *Arabi: Journal of Arabic Studies*, vol. 8, no. 2, pp. 123–135, Dec. 2023, doi: 10.24865/ajas.v8i2.612.
- [14] Z. Mohamadi, "Comparative effect of project-based learning and electronic project-based learning on the development and sustained development of English idiom knowledge," *Journal of Computing in Higher Education*, vol. 30, no. 2, pp. 363–385, Aug. 2018, doi: 10.1007/s12528-018-9169-1.
- [15] Z. Gabsi, "Writing in Arabic as a foreign language (AFL): Towards finding a balance between translation dependency and creative writing," *Journal of Language Teaching and Research*, vol. 11, no. 4, pp. 532–542, Jul. 2020, doi: 10.17507/jltr.1104.02.
- [16] S. Yang and B. L. Reynolds, "'Even I Can Do It': Chinese Ethnolinguistic Minority Learners' Investment in Creative Writing and Its Impact," *Chinese Journal of Applied Linguistics*, vol. 45, no. 3, pp. 340–359, Aug. 2022, doi: 10.1515/CJAL-2022-0302.
- [17] R. Thorpe, *Teaching Creative Writing to Second Language Learners: A Guidebook*, 1st ed. New York: Routledge, 2021, doi: 10.4324/9781003043492.
- [18] D. E. Kaplan, "Creativity in education: teaching for creativity development," *Psychology*, vol. 10, no. 2, pp. 140–147, 2019, doi: 10.4236/psych.2019.102012.
- [19] R. I. S. Marcos, V. L. Fernández, M. T. D. González, and J. Phillips-Silver, "Promoting children's creative thinking through reading and writing in a cooperative learning classroom," *Thinking Skills and Creativity*, vol. 36, p. 100663, Jun. 2020, doi: 10.1016/j.tsc.2020.100663.
- [20] V. T. Q. Trang, "Students' perceptions on learning writing skills through project-based learning," *International Journal of Applied Science and Research*, vol. 5, no. 4, pp. 198–205, 2022, doi: 10.56293/ijasr.2022.5421.
- [21] A. Isabekov and G. Sadyrova, "Project-Based learning to develop creative abilities in students," in *Vocational Teacher Education in Central Asia: Developing Skills and Facilitating Success*, J. Drummer, G. Hakimov, M. Joldoshev, T. Köhlervol, and S. Udartseva, Eds., Cham: Springer International Publishing, 2018, pp. 43–49, doi: 10.1007/978-3-319-73093-6_4.
- [22] A. Jamal, A. M. Jamal, and S. M. Yusof, "Children as Earth authors: a story of creativity, metacognition, and motivation among Indian School Children," *Journal of Creative Behavior*, vol. 57, no. 3, pp. 450–465, Sep. 2023, doi: 10.1002/jocb.591.
- [23] G. Barton, M. Khosronejad, M. Ryan, L. Kervin, and D. Myhill, "Teaching creative writing in primary schools: a systematic review of the literature through the lens of reflexivity," *Australian Educational Researcher*, vol. 51, no. 4, pp. 1311–1330, Sep. 2024, doi: 10.1007/s13384-023-00641-9.
- [24] B. Turnbull, "Translanguaging in the planning of academic and creative writing: A case of adult Japanese EFL learners," *Bilingual Research Journal*, vol. 42, no. 2, pp. 232–251, Apr. 2019, doi: 10.1080/15235882.2019.1589603.
- [25] Y. Wang, A. Derakhshan, and L. J. Zhang, "Researching and practicing positive psychology in second/foreign language learning and teaching: the past, current status and future directions," *Frontiers in Psychology*, vol. 12, p. 731721, Aug. 2021, doi: 10.3389/fpsyg.2021.731721.
- [26] B. Thornhill-Miller *et al.*, "Creativity, critical thinking, communication, and collaboration: assessment, certification, and promotion of 21st century skills for the future of work and education," *Journal of Intelligence*, vol. 11, no. 3, p. 54, Mar. 2023, doi: 10.3390/jintelligence11030054.
- [27] S. Y. Chen, C. F. Lai, Y. H. Lai, and Y. S. Su, "Effect of project-based learning on development of students' creative thinking," *International Journal of Electrical Engineering and Education*, vol. 59, no. 3, pp. 232–250, Jul. 2022, doi: 10.1177/0020720919846808.
- [28] S. Schut, J. van Tartwijk, E. Driessen, C. van der Vleuten, and S. Heeneman, "Understanding the influence of teacher-learner relationships on learners' assessment perception," *Advances in Health Sciences Education*, vol. 25, no. 2, pp. 441–456, May 2020, doi: 10.1007/s10459-019-09935-z.
- [29] J. W. Creswell and V. L. P. Clark, *Designing and conducting mixed methods research*, 3rd ed. Thousand Oaks, CA: Sage Publications, Inc., 2017.
- [30] R. K. Yin, *Case study research and applications: design and methods*, 6th ed. Thousand Oaks, CA: SAGE Publications, Inc., 2017.
- [31] U. Kelle, C. Kühberger, and R. Bernhard, "How to use mixed-methods and triangulation designs: An introduction to history education research," *History Education Research Journal*, vol. 16, no. 1, pp. 5–23, Apr. 2019, doi: 10.18546/herj.16.1.02.
- [32] R. Bell, V. Warren, and R. Schmidt, *The Application of Concurrent or Sequential Mixed-Methods Research Designs and Their Methodological Implications: Investigating Tacit Knowledge, Its Use, and Application in Automotive Development*. London: SAGE Publications, Ltd., 2022, doi: 10.4135/9781529604474.
- [33] S. Al-Busaidi and F. Al-Seyabi, "Project-based learning as a tool for student-teachers' professional development: a study in an Omani EFL teacher education program," *International Journal of Learning, Teaching and Educational Research*, vol. 20, no. 4, pp. 116–136, Apr. 2021, doi: 10.26803/ijlter.20.4.7.
- [34] M. F. Teng, C. Wang, and L. J. Zhang, "Assessing self-regulatory writing strategies and their predictive effects on young EFL learners' writing performance," *Assessing Writing*, vol. 51, p. 100573, Jan. 2022, doi: 10.1016/j.asw.2021.100573.
- [35] C. W. Wiese, C. S. Burke, Y. Tang, C. Hernandez, and R. Howell, "Team learning behaviors and performance: a meta-analysis of direct effects and moderators," *Group and Organization Management*, vol. 47, no. 3, pp. 571–611, Jun. 2022, doi: 10.1177/10596011211016928.




- [36] M. L. Aikens and A. R. Kulacki, "Identifying group work experiences that increase students' self-efficacy for quantitative Biology tasks," *CBE Life Sciences Education*, vol. 22, no. 2, p. ar19, Jun. 2023, doi: 10.1187/cbe.22-04-0076.
- [37] A. Al Abri, Y. Jamoussi, Z. AlKhanjari, and N. Kraiem, "Pericol: A framework for personalized e-learning with social collaboration support," *International Journal of Computing and Digital Systems*, vol. 9, no. 3, pp. 483–493, May 2020, doi: 10.12785/IJCDs/090312.
- [38] Y. Yuan and D. van Knippenberg, "From member creativity to team creativity? Team information elaboration as moderator of the additive and disjunctive models," *PLoS ONE*, vol. 15, no. 12, pp. 1–22, Dec. 2020, doi: 10.1371/journal.pone.0243289.
- [39] K. Lucznik, J. May, and E. Redding, "A qualitative investigation of flow experience in group creativity," *Research in Dance Education*, vol. 22, no. 2, pp. 190–209, May 2021, doi: 10.1080/14647893.2020.1746259.
- [40] A. M. Azmi, M. F. Al-Jouie, and M. Hussain, "AAEE–Automated evaluation of students' essays in Arabic language," *Information Processing and Management*, vol. 56, no. 5, pp. 1736–1752, Sep. 2019, doi: 10.1016/j.ipm.2019.05.008.
- [41] D. Perin and M. Lauterbach, "Assessing text-based writing of low-skilled college students," *International Journal of Artificial Intelligence in Education*, vol. 28, no. 1, pp. 56–78, Mar. 2018, doi: 10.1007/s40593-016-0122-z.
- [42] S. J. Han, Y. Lee, and M. Beyerlein, "Developing team creativity: the influence of psychological safety and relation-oriented shared leadership," *Performance Improvement Quarterly*, vol. 32, no. 2, pp. 159–182, Jul. 2019, doi: 10.1002/piq.21293.
- [43] H. Meijer, R. Hoekstra, J. Brouwer, and J. W. Strijbos, "Unfolding collaborative learning assessment literacy: a reflection on current assessment methods in higher education," *Assessment and Evaluation in Higher Education*, vol. 45, no. 8, pp. 1222–1240, Nov. 2020, doi: 10.1080/02602938.2020.1729696.
- [44] G. Pan, P. S. Seow, V. Shankararaman, and K. Koh, "An exploration into key roles in making project-based learning happen: Insights from a case study of a university," *Journal of International Education in Business*, vol. 14, no. 1, pp. 109–129, May 2020, doi: 10.1108/JIEB-02-2020-0018.
- [45] H. Leroy, C. Buengeler, M. Veestraeten, M. Shemla, and I. J. Hoever, "Fostering team creativity through team-focused inclusion: the role of leader harvesting the benefits of diversity and cultivating value-in diversity beliefs," *Group and Organization Management*, vol. 47, no. 4, pp. 798–839, Aug. 2022, doi: 10.1177/10596011211009683.
- [46] I. J. Hoever, J. Zhou, and D. V. A. N. Knippenberg, "Different strokes for different teams: The contingent effects of positive and negative feedback on the creativity of informationally homogeneous and diverse teams," *Academy of Management Journal*, vol. 61, no. 6, pp. 2159–2181, Dec. 2018, doi: 10.5465/amj.2016.0642.
- [47] S. Han, D. Liu, and Y. Lv, "The influence of psychological safety on students' creativity in project-based learning: the mediating role of psychological empowerment," *Frontiers in Psychology*, vol. 13, p. 865123, Apr. 2022, doi: 10.3389/fpsyg.2022.865123.
- [48] A. S. Potvin, A. G. Boardman, and K. Stamatis, "Consequential change: Teachers scale project-based learning in English language arts," *Teaching and Teacher Education*, vol. 107, p. 103469, Nov. 2021, doi: 10.1016/j.tate.2021.103469.
- [49] C. Jiang and Y. Pang, "Enhancing design thinking in engineering students with project-based learning," *Computer Applications in Engineering Education*, vol. 31, no. 4, pp. 814–830, Jul. 2023, doi: 10.1002/cae.22608.
- [50] C. H. Chen and Y. C. Yang, "Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators," *Educational Research Review*, vol. 26, pp. 71–81, Feb. 2019, doi: 10.1016/j.edurev.2018.11.001.
- [51] R. Sánchez-García and V. Pavón-Vázquez, "Students' perceptions on the use of project-based learning in CLIL: learning Outputs and Psycho-affective considerations," *Latin American Journal of Content & Language Integrated Learning*, vol. 14, no. 1, pp. 69–98, Nov. 2021, doi: 10.5294/laclil.2021.14.1.3.
- [52] J. W. You, "Enhancing creativity in team project-based learning amongst science college students: The moderating role of psychological safety," *Innovations in Education and Teaching International*, vol. 58, no. 2, pp. 135–145, Mar. 2021, doi: 10.1080/14703297.2020.1711796.
- [53] N. K. Park, W. Jang, E. L. Thomas, and J. Smith, "How to organize creative and innovative teams: creative self-efficacy and innovative team performance," *Creativity Research Journal*, vol. 33, no. 2, pp. 168–179, 2021, doi: 10.1080/10400419.2020.1842010.
- [54] Y. Yuan, S. E. Humphrey, and D. van Knippenberg, "From individual creativity to team creativity: A meta-analytic test of task moderators," *Journal of Occupational and Organizational Psychology*, vol. 95, no. 2, pp. 358–404, Jan. 2022, doi: 10.1111/joop.12380.
- [55] S. Alemneh and G. Gebrie, "The role of project-based learning in improving the writing ability and sub-writing abilities of 10th grade Amharic speaking students," *Social Sciences and Humanities Open*, vol. 9, p. 100843, 2024, doi: 10.1016/j.ssaho.2024.100843.

BIOGRAPHIES OF AUTHORS






Zakiyah Arifa    is an associate professor in the Arabic Language Education Department at the State Islamic University of Maulana Malik Ibrahim Malang, Indonesia. She has taught with a bachelor's degree in language skills subjects, especially writing skills and linguistics. She has also taught Arabic language program, linguistics, and research methodology subjects at postgraduate master's and doctoral degrees in the Department of Arabic Language Education. Her research interests cover Arabic languages, Arabic language teaching and learning, Arabic writing learning, language program development, corpus linguistics, and narrative research. She founded the Arifa Learning Center, which tried to develop a language program and academic writing. She is also a member of the Association of Arabic Language Teachers Association (IMLA) and the Applied Linguistics Association of Indonesia (ALTI). She can be contacted at email: arifazakiyah@uin-malang.ac.id.






Al Lastu Nurul Fatim    is a lecturer in the Language Center for Arabic Language at the State Islamic University of Maulana Malik Ibrahim Malang, Indonesia. She obtained two master's degrees, a master's of Arabic Language Education in 2019 and a master's of Arabic Language and Literature in 2023, from Maulana Malik Ibrahim State Islamic University in Malang, Indonesia. Her areas of research interest are Arabic literature, Arabic linguistics, Arabic language teaching and learning, corpus linguistics, and cyber-literature. She can be contacted at email: allastufatim@gmail.com.






Risna Rianti Sari    is an Arabic lecturer in the Department of Arabic Language Education at the State Islamic University of Maulana Malik Ibrahim Malang, Indonesia. She has taught since 2019, especially in applied linguistics Arabic. Her research interest covers Arabic language learning and the technology used for Arabic language learning. She can be contacted at email: rismariantisari@uin-malang.ac.id.



Ahmad Hidayatullah Zarkasyi    is an associate professor of Department of Arabic Language Education at the Universitas Darussalam Gontor, Indonesia. He is known for his dedication and high commitment to developing Arabic language education. He completed his doctoral degree and master's degree in Arabic Language at Punjab University Pakistan and his undergraduate degree at Madinah University. His areas of research interest are Arabic curriculum design, Arabic linguistics, Arabic literature, and Arabic language teaching. He can be contacted at email: hidayatullah@unida.gontor.ac.id.



Dedi Mulyanto    is a lecturer in the Department of Arabic Language Education at Universitas Darussalam Gontor, Indonesia. He has been teaching since 2018, focusing on teaching and research, particularly in language proficiency skills. Dedi's dedication to the field of language education is evident through his commitment to enhancing students' language proficiency and his contributions to academic research in this field. He completed his postgraduate studies at Universitas Darussalam Gontor and continued his education in the Arabic for Non-Native Speaker program at Qatar University. He can be contacted at email: dedimulyanto@unida.gontor.ac.id.