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## Development of Torrance Test Creative Thinking Verbal (TTCT-V) Instrument for Measuring Arabic Creative Writing

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### *Abstract*

*This research aims to develop a TTCT-Verbal instrument to measure students' creative thinking skills and Arabic creative writing that essential competence of 21st-century skills. The instrument was developed based on Torrance's (1970) verbal test indicators and al-Bari's Arabic creative writing (2009). The R&D method used the 4D model design of Thiagarajan (1974). The instrument was developed with 6 components of creative thinking: ask and guess, guessing causes, guessing consequences, product improvement activity, unusual use activity, and suppose activity, with 5 items covering descriptive writing, news, poetry, Arabic quotes, and short stories. Based on the results of the 3 experts' validation tests showed that the TTCT-Verbal instrument was very valid, with an average of 4.5, and then tested on 30 university students. The results of the instrument validity test showed that all items were valid, and the reliability test showed reliable results. Therefore, this instrument is suitable for measuring the level of creative thinking and Arabic creative writing.*

**Keywords:** Arabic writing, creative thinking, creative writing, TTCT, test instrument

### **Abstrak**

Penelitian ini bertujuan untuk mengembangkan instrumen tes TTCT-Verbal yang dapat mengukur kemampuan berpikir kreatif mahasiswa dan menulis kreatif bahasa Arab yang menjadi kompetensi penting keterampilan abad ke-21. Instrumen dikembangkan berdasarkan indikator tes verbal Torrance (1970) dan menulis kreatif bahasa Arab al-Bari (2009). Desain R&D menggunakan desain model 4D Thiagarajan (1974). Instrumen dikembangkan dengan 6 komponen berpikir kreatif: ask and guess, guessing causes, guessing consequences, product improvement activity, unusual use activity, just suppose activity, dengan 5 butir soal meliputi menulis deskriptif, berita, puisi, kutipan Arab, dan cerita pendek. Hasil uji validasi 3 ahli menunjukkan bahwa instrumen TTCT-Verbal menulis kreatif bahasa Arab sangat valid dengan rerata 4.5, dan diujicobakan pada 30 mahasiswa. Hasil uji validitas instrumen menunjukkan semua butir soal valid dan uji reliabilitas juga menunjukkan hasil yang reliable. Sehingga instrumen ini layak digunakan untuk mengukur tingkat berpikir kreatif dan menulis kreatif bahasa Arab.

**Kata Kunci:** berpikir kreatif, instrumen tes, menulis Arab, menulis kreatif, TTCT

## Introduction

Arabic has become a foreign language competency mandatory for students besides English in Indonesia (Mukmin, 2019). It is also oriented towards learning Arabic, which can be directed using critical and creative thinking skills suitable to the 21<sup>st</sup>-century skills requirements (Albantani & Madkur, 2019), especially in writing skills. Writing skills using a foreign language such as Arabic involve grammar and writing structure under the rules of the language. In addition, writing is a form of intellectual development and analytical competency that provides ideas and creativity that occur in everyday life (Murray, 2012). Thus, writing activities combine cognitive processes and social factors (Alhawamdeh & Wahsheh, 2021).

Writing or *kitābah* in Arabic learning is one of the skills to express ideas and thoughts in written form. They are writing activities in Arabic as a psycho-motor activity using Arabic letters and punctuation symbols (I'sani, 2012). This case, of course, has linguistic challenges for non-Arab students (Gabsi, 2020). Arabic writing skill has a process of interpreting ideas in the form of text as a form of syntactic, lexical, and grammatical mastery in their composition (Nik et al., 2010; Quitero, 2008; Rico, 2014). Writing is also implemented to control and verify problems interpreted based on students' ideas through Arabic writing (Fareed et al., 2016; Graham & Perin, 2007). Implementing this writing needs students' awareness to represent imagination and creative thinking in producing texts according to the structure and rules of the Arabic language (Barbot et al., 2012; Edberg, 2018; Larkin, 2009).

Awareness in writing activities is carried out by generating original ideas by constructing texts creatively and imaginatively to produce interpretations and new responses (Fraser, 2006; Kaplan, 2019). This activity is known as creative writing. Creative writing skills are complex and challenging because they cover all elements, such as practice, record, discovery, interpretation, editing, and inscription (Harper & Kroll, 2008; Yancey, 2009). Implementing Arabic creative writing focuses students on producing a project or assignment through feedback, which is shown by practice to self-reflect so they can think critically, creatively, and confidently (Donnelly, 2015).

Creativity becomes a new challenge that is quite complex by making breakthroughs, transformative paradigm shifts, or gradual improvements to every idea that leads to innovation or broader trans-disciplinary progress (Haught-Tromp, 2016). Besides that, Torrance (1965, 1970) also emphasized that creative thinking has a character that combines cognitive performance to reinforce each other through process abilities such as fluency, flexibility, originality, elaboration, and resistance. This creatively and effectively shows that educators become facilitators in implementing creative thoughts and actions, which play a significant role in fostering, planning, and forming articulation, reflection, and self-confidence as triggers for the cognitive development of students (Collins et al., 1991; Harris & Bruin, 2018). The involvement of educators as facilitators will later spur understanding and encourage students' creativity through an exploratory process that is imaginative, empathetic, and self-confident (Stern, 2019).

Creativity refers to products, processes, and the environment (Liu et al., 2015). Products include achievements that are original and innovative. Similar to the process, which is also a part of problem-solving that leads to productivity solutions. Meanwhile, the environment includes work and open social contextual components that hierarchically allow the creation of innovative products. In this case, Kember & Leung (2009) emphasized that indicators in creative thinking require in-depth processing by measuring the scale of learning process activities. This is also in line with Torrance's statement (1978), which states that creativity has a sensitive process or awareness of a problem, deficiencies, and gaps in knowledge received through gathering information, storing memory, defining difficulties, finding alternative solutions, retesting alternative solutions, and then refine the alternative solutions by communicating.

The process of creative and innovative thinking is also related to a creative individual's personality. However, creativity can be found, designed, developed, and/or trained to a certain degree (Chen, 2021). On this basis, to determine a person's level of creativity, it is necessary to

measure the aspects of flexibility, originality, elaboration, brainstorming, modification, imagination, and sensitivity, which are entirely included in the development of the instrument (Runco & Pritzker, 2020). The development of this instrument must be adjusted to the objectives, methods, and time of use based on the high validity and reliability of learning (Purwanto, 2011). One instrument for measuring creative thinking skills that can be developed is the Torrance Tests of Creative Thinking (TTCT).

Instrument development on Torrance's creative thinking ability (TTCT) has two forms of modality. The first is verbal, which includes six activities with assessment components such as fluency, originality, and flexibility. The second is figural, consisting of three image construction activities with assessment components such as fluency, originality, elaboration, abstraction, and resistance (Kim et al., 2006). Each component needs to be learned and developed through training by activating thinking skills and attitudes to have an open mind and emotions (Kim, 2017). This TTCT instrument can be developed in various fields through interaction, collaboration, and/or competition, mutually benefiting each student (Kim, 2016).

Various studies have discussed creative thinking and TTCT development. The study tends to focus on creative thinking, such as developing writing skills (Anis et al., 2022; Sari & Mubaligh, 2019), learning Arabic using the PJBL model (Susanto et al., 2022), and implementing Arabic basic competency material (Muradi et al., 2020). Meanwhile, the trend of studies in implementing and developing TTCT instruments includes consideration of science subjects (Ernawati et al., 2019; Trisnayanti et al., 2019), environmental-based materials (Fauziah et al., 2021), and investigating measurements at the level of creativity students (Bart & Hakanson, 2016; Said-Metwaly, Moortgate, et al., 2021). Among these study trends, the position of this research is to complement and develop the TTCT instrument, which will focus on Arabic creative writing skills.

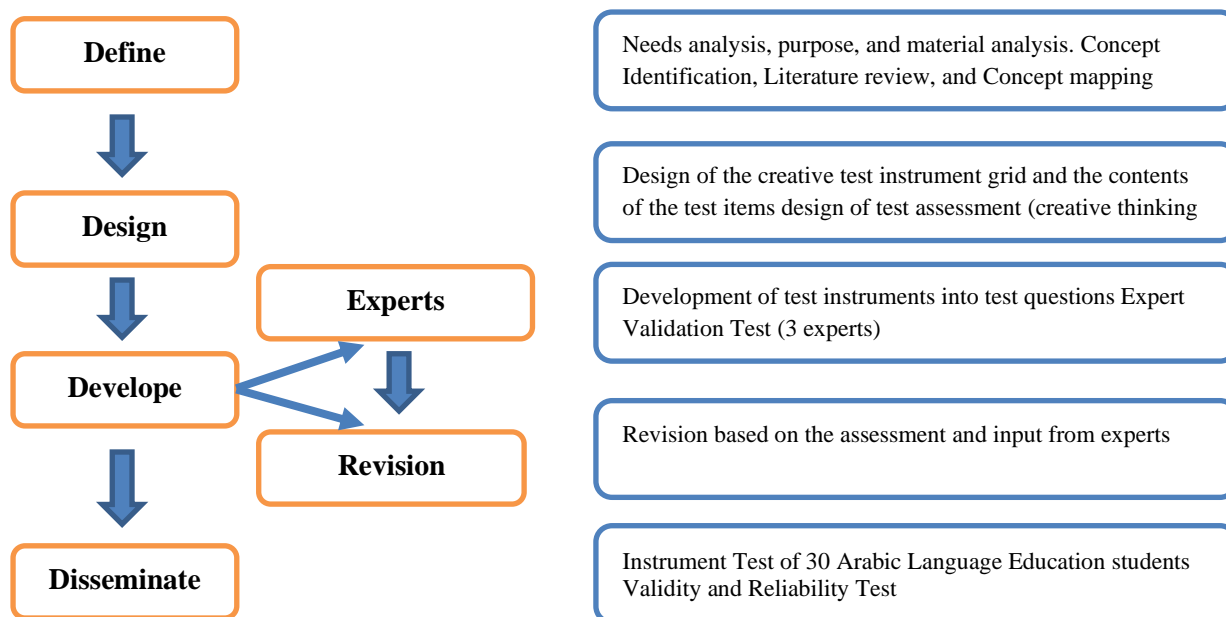
Writing skills include in-depth knowledge that requires creativity, collaboration, and communication (Murphy & Day, 2021). This allows creativity to cross all fields that are complexly capable of creating or producing something new as a prerequisite for innovation (Piiro, 2011). Creativity in writing skills lies in the involvement of experience through imagination space, selection of structures and methods, and preparation of ideas and problems (Harper, 2014). Based on this, this study aims to develop the TTCT-Verbal instrument to measure creative thinking and Arabic creative writing skills. Thus, this test-measuring instrument can be used as a further research instrument to measure learning outcomes in creative writing.

## Method

This research is a pilot project aimed at developing creative test instruments based on the Torrance Test of Creative Thinking (1970) and Arabic creative writing based on al-Bari (2009) and testing the validity and reliability of these instruments. This study used research and development (R&D) with a 4D model (Thiagarajan et al., 1974) Define-Design-Develop-Disseminate.

This research procedure started by 1) Define and analyzing the needs both theoretically and practically about creative thinking in Arabic writing, analysis of objectives and learning materials referring to *Mahārah al-Kitābah 2 (Kitābah Ibdā'iyah)* course, then identifying the concepts of creative thinking and creative writing from several reference sources, reviewing and mapping; 2) Design, that designing a grid of creative test questions to measure the ability to think creatively and write Arabic creatively as well as aspects of the assessment which consist of two components, both of the assessment of creative thinking and writing; 3) Develop, developing test grids into test questions based on tests developed by Torrance (1970) and content validity tests on expert (experts judgment) and revising based on input from experts; 4) Disseminate, by testing students to be tested and then tested statistics by testing the validity and reliability, whether the items are valid and reliable.

Fig.1: Design Research and Development of the TTCT-V Creative Writing Instrument



The designed and developed test questions and test items were tested on 3 Arabic creative writing experts from 3 different universities, 1 from the Indonesian Islamic State University, 1 from Indonesian Public State University, and 1 from Foreign University; the three of them, apart from teaching writing courses also had experience in developing materials or learning to write and have the results of research on Arabic writing. The following are expert data:

Table 1: Instrument Validation Expert Identity Description

Experts	Education	Functional	College	Program
Expert 1	Doctor	Associate Professor	Indonesian Islamic State University	Arabic Language Education
Expert 2	Doctor	Assistant Professor	Indonesian Public State University	Arabic Literature
Expert 3	Doctor	Assistant Professor	Foreign University	Arabic Studies

Experts were asked to review the question grid, fill out a validation questionnaire for the test questions, and provide comments and suggestions through the Google form media to improve the test being developed. The questionnaire contains a description of the identity of the expert. The validity aspect consists of 6 points of presentation aspects, 4 points of linguistic aspects, as well as suggestions and comments narratively. According to Ratumanan and Laurens (2006), the interpretation of results uses validation criteria (Ratumanan & Laurens, 2006). Expert validation criteria Interval Category  $1.75 > x > 1.00$  indicates invalid criteria,  $2.50 > x > 1.75$  less valid,  $3.25 > x > 2.50$  quite valid,  $4.00 > x > 3.25$  Valid,  $5.00 > x > 4.00$  Very Valid.

This test instrument was tested on 30 students majoring in Arabic Language Education (ALE) who attended the *Kitābah 2* course at 4 grade at Universitas Islam Negeri Maulana Malik Ibrahim Malang who were selected randomly with varying abilities and educational backgrounds, both from Islamic boarding schools and non-Islamic boarding schools, referring to the development suggested by Sugiyono (2017). The object of this study consisted of 14 male and 16 female students.

Data collection for the expert test used a questionnaire with a Likert scale of 5: Very Good (score 5), Good (score 4), Fair (score 3), Not Good (score 2), and Poor (score 1). To test the validity and reliability of the Arabic creative writing test using a written test in the form of descriptions and essays consisting of 5 items on descriptive writing, writing Arabic news, Arabic poetry, writing Arabic quotes, and writing short stories. This test is to test two things at one time: the level of

creative thinking and the ability of Arabic writing skills. The assessment of creative thinking using the concept of Torrance (1970), which was developed includes 3 aspects; fluency (score 10-40), flexibility (score 10-30), and originality (score 10-30). As for the writing assessment, the Jacobs profile (1981) assessment was used, which included 5 aspects; content (score 13-30), organization (score 7-20), vocabulary (score 7-20), use of language (score 5-25), and writing technique (score 2-5). The data analysis for the validation questionnaire used descriptive analysis, while to test the validity used Pearson's Bivariate Product-Moment correlation, and to test the reliability used Cronbach Alpha in spite of the tests were in the form of descriptions and essays using SPSS 25.

## Result and Discussion

### *Creative Thinking Instrument in Arabic Writing: Define and Design Stage*

In the first stage, the defined stage in the development of creative thinking instruments in writing is analyzing needs with an analysis of *Mahārah Kitābah 2* learning plans with a focus on *Kitābah Ibdā'iyah* at Arabic Language Education at Universitas Islam Negeri Maulana Malik Ibrahim Malang, analysis of learning outcomes, learning materials, and assessment. The next step is exploring the concepts of creative thinking and creative writing in Arabic and finding the underlying and sufficient idea is the Torrance concept which can measure students' creative thinking abilities, while Arabic creative writing material refers to the concept of *al-Kitābah al-Ibdā'iyah* al-Bari (2009) by adjusting to learning outcomes.

Furthermore, designing by combining profiles of aspects of creative thinking with creative writing material as outlined in a question grid consisting of 6 aspects of creative thinking activities; ask and guess, guessing causes, guessing consequences, product improvement activity, unusual use activity, and suppose activity. From 6 aspects of activities to 5 creative writing activities, the researchers combine guessing causes and consequences into 1 activity and 1 item. Then, it becomes 5 writing activities or 5 test items. The first ask-and-guess activity is combined with a description writing test by making questions from the available pictures, and then students are asked to describe the picture. The second and third activities are guessing causes and guessing consequences by writing news material from the images provided, which contain the causes and effects of an event. The fourth activity is a product improvement activity that asks students to produce Arabic poetry. At the same time, the fifth activity is the usual activity, asking students to develop ideas by writing down Arabic quotations. The sixth activity is the supposed activity, asking students to imagine and make short stories.

Each activity is then described, and indicators of creative thinking ability and writing ability with 3 factors; fluency, flexibility, and originality are developed. The following is also an example of a test in the form of an essay or essay writing test. The essay test is adjusted to the verbal test and creative writing achievement so that students can answer by developing ideas and expressing the results of their creative thoughts in complete writing. From these indicators, an assessment profile is formulated with an interval scale of 30-100 with details, a score of 10-40 for fluency, 10-30 for flexibility, and 10-30 for originality. Meanwhile, the assessment of writing ability follows the assessment profile initiated by Jacobs et al. (1981), which includes 5 aspects, there are content with a score of 13-30, organization with a score of 7-20, vocabulary with a score of 7-20, use of language with a score of 5-25, and writing technique score 2-5. The results of the TTCT-Verbal Creative Writing Arabic instrument design that has been carried out produce 5 items that can measure 6 creative thinking activities as well as being able to measure writing ability.

After designing the test and assessment instrument grids, the next step is expert validation. 3 learning and language experts, especially experts with teaching experience or who worked on creative writing, carried out instrument content validation. The results of the assessment of the three experts are as follows:

Table 2: Results of Instrument Assessment by Experts

No	Assessment of Instrument Items	Expert	Expert	Expert	Average	Criteria
	Presentation Aspect	1	2	3		
1.	Instrument items can measure the ability to think creatively	5	4	5	4.67	Very Valid
2.	The presentation of the items is written systematically	5	4	4	4.33	Very Valid
3.	Instruments represent each learning indicator	4	5	5	4.67	Very Valid
4.	Instruments are made according to the conditions of students	5	5	4	4.67	Very Valid
5.	Instruments are presented in a straightforward and easy-to-understand manner	5	4	4	4.33	Very Valid
6.	Torrance's creative aspects are represented in the instrument items	5	4	4	4.33	Very Valid
<b>Language Aspect</b>						
7.	The use of communicative language	5	4	5	4.67	Very Valid
8.	The use of precise language can be understood	4	4	5	4.33	Very Valid
9.	The use of Arabic writing rules for each item	5	4	4	4.33	Very Valid
10.	Context adjustment for each item	5	4	5	4.67	Very Valid
<b>Average</b>		4.8	4.2	4.5	4.5	<b>Very Valid</b>
<b>Category</b>		<b>Very Valid</b>	<b>Very Valid</b>	<b>Very Valid</b>	<b>Very Valid</b>	

The average value of each aspect item shows a range of 4.33-4.67, which is in the very valid category. Likewise, the average for each expert offers a value range of 4.2-4.8, indicating a very valid category from all aspects. However, there are several notes of comments from experts for the improvement of this test instrument, including:

Expert 1

1. A more specific item instrument is needed. Therefore, the indicators do not appear to repeat
2. Instructions for questions need to be prepared in simple language
3. In general, it is appropriate and relevant

Expert 2

1. Terms in foreign languages should be given Indonesian equivalents, such as ask and guess.
2. It would be better to use a scale for indicators of creative ability.
3. Fluency, flexibility, and originality measures must be clarified and given an equivalent in Indonesian.
4. There are no goal factors or the ultimate goal of each point.

Expert 3

1. The creative writing test instrument follows the TTCT.

From the input of these experts, the test instrument and its outlines were revised, and improvements were made to the test instrument grids and test items from the aspects of indicators, language, and rating scales. The result of the advance is that there is no addition or subtraction of question items and material, only improvements in the instrument grille. After revision and improvement, the instrument can be statistically tested for validity and reliability.

The results of the revised test instrument were then tested on students to measure validity and reliability. The test results on 30 students showed various values, namely the following descriptive statistical data: the range of scores for the ability to think creatively between 33.6-71.4 with an average score of 57.5. At the same time, the score range for writing ability is 41.8-72.8, with an average value of 61.33. Of the five questions tested, all test items showed valid results. The following is the result of the validity test using SPSS-25:

**Table 3: Test Instrument Validity Test Results**

No	Questions Number	Creative Thinking Test	Validation Result		
			Interpretation	Arabic Writing Test	Interpretation
1.	Question 1	0.903**	Valid	0.886**	Valid
2.	Question 2	0.901**	Valid	0.906**	Valid
3.	Question 3	0.963**	Valid	0.943**	Valid
4.	Question 4	0.906**	Valid	0.915**	Valid
5.	Question 5	0.922**	Valid	0.949**	Valid

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The validity test results showed a highly significant correlation greater than 0.3. Therefore all valid items can be used to measure creative thinking and writing abilities. The next step is to test the reliability of the test instrument. The results of the reliability test with Cronbach's Alpha show the following results:

**Table 4: Instrument Reliability Test Results**

Reliability Result	Creative Thinking Test	Interpretation	Arabic Writing Test	Interpretation
		0.828	Reliable	0.829

The results of the interpretation of the reliability of the ability to think creatively and the ability to write both show reliable results, which are more significant than 0.3. The developed test instrument is reliable and feasible to measure both the ability to think creatively and write simultaneously.

TTCT-V consists of six activities. The stimulus for each activity can start with a picture or question of a particular situation, and the test taker responds to the image or situation in writing. The assessment components include the fluency, flexibility, and originality subscales. The number of relevant ideas measures fluency in the picture/situation. Many different kinds of ideas measure flexibility. The uniqueness of the concept measures originality. As for Arabic creative writing, it uses concepts developed by al-Bari (2009) among the materials developed are instruments developed with 6 components of creative thinking; ask and guess, guessing causes, guessing consequences, product improvement activity, unusual use activity, suppose activity, with 5 items covering descriptive writing, news, poetry, Arabic quotes, and short stories.

**Table 5: Results of the Development of the TTCT-V Instrument for Creative Writing in Arabic**

No	Activity	Description	Factor	Creative Ability Indicator	Writing Ability Indicator	Sample Test Questions Creative Writing
1	Ask and Guess	Activities carried out to ask questions based on the images that have been displayed based on knowledge	Fluency	Make questions that can be understood and interpreted relevantly	Students can write questions in Arabic from the image presented, which can be interpreted	Description the image (كتابة الوصف) اختر إحدى الصور
			Flexibility	Create relevant questions with different categories	Students can write relevant questions from the images presented	التالية، ثم لاحظ واجعل الأسئلة على
			Originality	Ask different questions to	Students can write further questions	الأقل ٣ أسئلة) بما

		other learners to fill gaps in knowledge	according to their imagination from the images presented	خطر في ذهنك حول تلك الصورة، ثم صف الصورة (كتابة الوصف) (على الأقل ٥ كلمة)!		
2/3	<b>Guessing Causes and Guessing Consequences</b>	Activities are carried out to be able to formulate the causes and effects of the events that have been shown in the image.	Fluency	Estimating the cause and effect of an event relevantly	Students can write relevant causes and consequences of an event	Writing news (كتابة الأخبار) لاحظ الحادثة في الصور التالية، اختر واحدة منها، اكتب الاخبار والسبب والمسبب لتلك الحادثة عند رأيك (٥٠ على الأقل كلمة)!
			Flexibility	Estimating the cause and effect of an event is relevant but different categories.	Students can write the causes and effects of an event in several categories.	
			Originality	Submit an original response that is certainly different from other students.	Students can write the causes and effects of an event and provide different responses from the others.	
4	<b>Product Improvement Activity</b>	Activities that utilize the ability to develop ideas	Fluency	Provide relevant ideas according to pictures or situations or imagination	Students can develop ideas and write Arabic poetry according to their imagination	Writing poem (كتابة الشعر) تخيل أنك في سعادة أو حب، أو غرام، أو في حزن أو خسارة، اكتب شعرا مناسباً لخيال شعورك!
			Flexibility	Provide relevant ideas for images and situations or imaginations with different categories.	Students can develop ideas and write Arabic poems in different categories according to their imagination.	
			Originality	Propose relevant ideas that are different from other students	Students can develop ideas and write Arabic poems according to the different imaginations of other students	
5	<b>Unusual Uses Activities</b>	Activities to test the ability to think original	Fluency	Designing the idea of the use of a relevant object	Students can develop ideas and write Arabic quotations from relevant objects	Writing quotes (كتابة الاقتباس) اكتب اقتباساً مناسباً لحياتك أو لحماستك (الاقتباس الدافعي للحياة) بأكثر ما يمكن بما عندك!
			Flexibility	Designing the usability idea of an object that is relevant to different categories	Students can design ideas and write Arabic quotations from objects relevant to specific categories.	
			Originality	Designing ideas for the use of a	Students can design ideas and	



			relevant object that is different from other students	write Arabic quotes from relevant objects different from other students.
6	<b>Just Suppose Activity</b>	Activities are undertaken to test the ability to play with ideas and imagination by predicting outcomes and consequences, often indicating the imagination level.	Fluency	Develop ideas and imagination with the possibility of predicting situations Students can develop ideas and imagination and express them by writing short stories with relevant situations
			Flexibility	Develop ideas and imagination with the possibility of predicting situations with different categories. Students can develop ideas and imagination and express them by writing short stories about situations with different categories.
			Originality	Develop ideas and imagination to predict situations that are different from other students. Students can develop ideas and imagination and express them by writing short stories in different situations from other students.

Writing short story  
(كتابة القصة القصيرة)  
تخيل خبرة شخص أو قصة شخص في الحياة، ثم اكتب قصة قصيرة وفقا لخيالك!

The assessment developed to measure creative thinking with an interval scale of each aspect of the assessment is as follows:

**Table 6: TTCT-Verbal Creative Thinking Assessment Profile**

No	Assessment Aspect	Score	Level	Criteria
1.	<b>Fluency</b>	40-35	Excellent to Very Good	Have good knowledge and ability, idea development, and relevant imagination according to the assigned topic.
		34-25	Good to Average	Have adequate knowledge and ability, limited idea development, and imagination relevant to the topic but need more detail.
		24-15	Fair to Poor	Limited knowledge and abilities, inadequate idea development, minimal imagination, and less relevant
		14-10	Very Poor	Does not demonstrate good knowledge and skills, lacks development of ideas and imagination, and is irrelevant.
2.	<b>Flexibility</b>	30-25	Excellent to Very Good	Good skills, relevant ideas according to the topic, and the ability to categorize different topics in detail.
		24-20	Good to Average	Have adequate skills and ideas relevant to the topic and can categorize different topics but need more detail.
		19-15	Fair to Poor	Have limited abilities, ideas that are less relevant, and less able to categorize different topics
		14-10	Very Poor	Has very little ability and ideas and is unable to categorize different topics
3.	<b>Originality</b>	30-25	Excellent to Very Good	Have good knowledge and develop relevant ideas according to the topic, and be able to produce original products that are different from other students.
		24-20	Good to Average	Have adequate knowledge and develop relevant ideas according to the topic, and be able to produce original products that are different but have little in common with other students.
		19-15	Fair to Poor	Have limited knowledge and idea development, and produce original products that have some similarities with other students

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14-10	Very Poor	Has very little knowledge and idea development in producing original products and has a lot in common with other students
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The development of TTCT-V is needed to develop creativity in learning. The research on developing TTCT-V in Arabic creative writing above was preceded and based on previous studies; there was the development of TTCT-V in science learning to measure the level of creativity of science students using the Borg and Gall research design (Trisnayanti et al., 2019). As for the second language, in this case, English TTCT-V has also been developed in English creative writing by adopting TTCT-V into the assessment rubric, as was done in this study. After being validated by experts, the assessment rubric has a high level of validity and reliability, making it feasible to measure English creative writing (Rababah, 2018).

Creative assessment in the development of this instrument uses six aspects of creative thinking, which are simplified into five and then adjusted to the Arabic creative writing questions. The five aspects and items include ask and guess with objects in the form of image descriptions, guessing causes and guessing consequences with items on writing cause and effect of Arabic news, product improvement activity with items on constructing Arabic poetry, unusual activity with items on writing Arabic quotations, and suppose activity with short story writing questions. These six aspects of measuring student creativity are standardly used in measuring student cognition, and this is because these aspects evaluate individual competence to generalize original and adapted ideas within a limited time (Said-Metwaly, Noortgate, et al., 2021).

As for Arabic creative writing, the assessment refers to the five aspects Jacobs (1981) presented: content assessment, writing organization, vocabulary selection, language use, and technique. This aspect is reduced to indicators that are adapted to creative writing activities. These aspects of creative writing in Arabic can reveal grammatical and lexical problems and the complex nature of Arabic, which are the main challenges when writing in Arabic (Gabsi, 2020). Even lexically, students ignore the differences between words and overgeneralize their usage. Therefore, vocabulary selection is essential to be used as a reference for assessment.

### Conclusion

The development of the 21st century demands the development of competencies to think creatively. This research has developed a TTCT-Verbal test instrument to measure the ability to think creatively through Arabic creative writing. The development of this instrument is based on indicators of verbal tests in Arabic creative writing, according to Torrance (1970). The instrument developed has 6 components of creative thinking, such as asking and guessing, guessing the causes, guessing the effects, product improvement activities, activities, unusual uses, and, let's say, which is carried out with 5 activity items including descriptive text, news, poetry, Arabic quotes, and short stories. In the process of developing the instrument, there were also validation results from 3 experts showing that the TTCT-Verbal instrument in Arabic creative writing was very valid with an average of 4,5 which was then revised and improved for testing. The results of the validity test of creative thinking and writing show that all items are valid; thus, this instrument is feasible for measuring the level of creative thinking and writing in Arabic. In addition, this instrument can be used to determine materials, strategies, and media in implementing Arabic learning and can also develop and enhance students' creative thinking abilities.

Developing instruments for creative thinking has significance with creative and imaginative individual personalities. The development of this instrument also has implications for providing stimulus by interpreting writing activities in the classroom to measure creative thinking skills. However, this study also has limitations in that it only develops one language skill, namely writing ability skill, and only uses the development of Torrance's instruments on the verbal aspect. Thus, further research can develop instruments for various language skills according to teacher needs.[]

## References

- Albantani, A. M., & Madkur, A. 2019. "Teaching Arabic in the Era of Industrial Revolution 4.0 in Indonesia: Challenges and Opportunities", *ASEAN Journal of Community Engagement*, Vol. 3, No. 2.
- Alhawamdeh, H. A., & Wahsheh, R. A. 2021. "The Effect of Using a Combining Strategy of Language and Imaginative Games in Teaching Arabic to Develop Third-Grade Intermediate School Students' Creative Writing Skills in Najran", *Review of International Geographical Education*, Vol. 11, No. 12.
- Anis, M. Y., Malik, A., & Setiyadi, A. C. 2022. "Developing Creative Writing Process Based on the Translation of Arabic Phrases: Case Study in Arabic Prose and Poetry," *Journal of Narrative and Language*, Vol. 10, No. 20.
- Barbot, Tan, B., Randi, M., Danto, G. S. J., & Grigorenko, E. 2012. "Essential Skills for Creative Writing: Integrating Multiple Domain-Specific Perspectives", *Thinking Skills and Creativity*, Vol. 7.
- al-Bari, M. S. A. 2009. *al-Kitabah al-Wadhifiyah wa al-Ibdai'yah: al-Majalat, al-Maharat, al-Ansyithah, wa at-Taqwim*. Dar al-Masyirah lin-Nasyir wa at-Tauzi' wa ath-thiba'ah.
- Bart, W. M., & Hakanson, B. 2016. "An Investigation of the Factor Structure of the Torrance Tests of Creative Thinking", *Educational Sciences: Theory & Practice*, Vol. 17, No. 2.
- Chen, X. M. 2021. "Integration of Creative Thinking and Critical Thinking to Improve Geosciences Education", *The Geography Teacher*, Vol. 18, No. 1.
- Collins, A., Brown, J. S., & Holum, A. 1991. "Cognitive Apprenticeship: Making Thinking Visible", *American Educator*, Vol. 15, No. 3.
- Donnelly, D. 2015. "Embracing the Learning Paradigm: How Assessment Drives Creative Writing Pedagogy", In G. Harper (Ed.), *Creative Writing and Education*. Multilingual Matters.
- Edberg, H. 2018. *Creative Writing for Critical Thinking: Creating a Discoursal Identity*. Pargrave Macmillan.
- Ernawati, M. D. Wiwik., Muhammad, D., Asrial., & Muhaimin. 2019. "Development of Creative Thinking Skill Instruments for Chemistry Student Teachers in Indonesia", *IJOE: International Journal of Online and Biomedical Engineering*, Vol. 15, No. 14.
- Fareed, M., Ashraf, A., & Bilal, M. 2016. "ESL Learners' Writing Skills: Problems, Factors and Suggestions", *Journal of Education & Social Sciences*, Vol. 4, No. 2.
- Fauziah, L., Rizkiyah, F., Miarsyah, M., & Ristanto, R. H. 2021. "Pengembangan TTCT-V (Torrance Test of Creativity Thinking Verbal) Berbasis Lingkungan untuk Tingkat SMA", *Bio-Lectura: Jurnal Pendidikan Biologi*, Vol. 8, No. 1.
- Fraser, D. 2006. "The Creative Potential of Metaphorical Writing in The Literacy Classroom", *English Teaching: Practice and Critique*, Vol. 5, No. 2.
- Gabsi, Z. 2020. "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.
- Graham, S., & Perin, D. 2007. "Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools", In *A Report to Carnegie Corporation of New York*. Alliance for Excellent Education.
- Harper, G. 2014. *The Future for Creative Writing*. New Jersey: WILEY Blackwell.

## Arabi : Journal of Arabic Studies

- Harper, G., & Kroll, J. 2008. "Creative Writing in The University", In G. Harper & J. Kroll (Eds.), *Creative Writing Studies: Practice, Research and Pedagogy*. Multilingual Matters.
- Harris, A., & de Bruin, L. R. 2018. "Training Teachers for Twenty-First Century Creative and Critical Thinking: Australian Implications from an International Study", *Teaching Education*, Vol. 29, No. 3.
- Haught-Tromp, C. 2016. "Facilitating Creative Thinking in the 21st Century", In D. Ambrose & R. J. Sternberg (Eds.), *Creative Intelligence in the 21st Century*. Rotterdam: Sense Publishers.
- I'sani, A. M. 2012. *Nadzriyati at-Ta'lim wa Tatbiqotiha fi U'lum al-Lughoh Iktisabi al-Maharoti al-Lughowiyah al-Asiyah*. Beirut: Dar al-Kitab al-Hadits.
- Jacobs, H. L., Stephen, A., Zinggraf, D. R., Wormuth, V., Faye, H., & Jane, B. H. 1981. *Testing ESL Composition: A Practical Approach*. New York: Nebury House Publishers, Inc.
- Kaplan, D. E. 2019. "Creativity in Education: Teaching for Creativity Development", *Psychology*, Vol. 10, No. 02.
- Kember, D., & Leung, D. Y. P. 2009. "Development of a Questionnaire for Assessing Students' Perceptions of Teaching and Learning Environment and its Use in Quality Assurance", *Learning Environments Research*, Vol. 12, No. 1.
- Kim, K. H. 2016. *The Creativity Challenge: How We Can Recapture American Innovation*. New York: Prometheus Books.
- Kim, K. H. 2017. "The Torrance Tests of Creative Thinking - Figural or Verbal: Which One Should We Use?", *Creativity: Theories - Research - Applications*, Vol. 4, No. 2.
- Kim, K. H., Cramond, B., & Bandalos, D. L. 2006. "The Latent Structure and Measurement Invariance of Scores on the Torrance Tests of Creative Thinking-Figural", *Educational and Psychological Measurement*, Vol. 66, No. 3.
- Larkin, S. 2009. "Socially Mediated Metavognition and Learning to Write", *Thinking Skills and Creativity*, Vol. 4, No. 3.
- Liu, Z. K., He, J., & Li, B. 2015. "Critical and Creative Thinking as Learning Processes at Top-Ranking Chinese Middle Schools: Possibilities and Required Improvements", *High Ability Studies*, Vol. 26, No. 1.
- Mukmin. 2019. "The Effect of Educational Background and Language Competence on Students' Arabic Language Motivation", *Arabiyat: Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban*, Vol. 6, No. 1.
- Muradi, A., Mubarak, F., Darmawaty, R., & Hakim, A. R. 2020. "Higher Order Thinking Skills dalam Kompetensi Dasar Bahasa Arab", *Arabi: Journal of Arabic Studies*, Vol. 5, No. 2.
- Murphy, M. D., & Day, D. R. 2021. "A Scenario for Writing Creative Scenarios", *Socio-Ecological Practice Research*, Vol. 3.
- Murray, N. 2012. *Writing Essays in English Language and Linguistics: Principles, Tips and Strategies for Undergraduates*. Cambridge: Cambridge University Press.
- Nik, Y. A., Hamzah, A., & Rafidee, H. 2010. "A Comparative Study on the Factors Affecting the Writing Performance among Bachelor Students", *International Journal of Educational Research and Technology*, Vol. 1, No. 1.
- Piirto, J. 2011. *Creativity for 21st Century Skills: Personality, Motivation, Study, and Talent*. Rotterdam: Sense Publishers.
- Purwanto. 2011. *Evaluasi Hasil Belajar*. Yogyakarta: Pustaka Pelajar.

- Quitero, L. M. 2008. "Blogging: A Way to Foster EFL Writing", *Colombia Applied Linguistics Journal*, Vol. 10.
- Rababah, L. 2018. "An Adapted Version of Torrance Test of Creative Thinking (TTCT) in EFL/ESL Writing: A Rubric Scoring and A Review of Studies", *International Journal of English and Education*, Vol. 7, No. 2.
- Ratumanan, T. G., & Laurens, T. 2006. *Evaluasi Hasil Belajar yang relevan dengan Kurikulum Berbasis Kompetensi*. Surabaya: Unesa University Press.
- Rico, L. J. A. 2014. "Identifying Factors Causing Difficulties to Productive Skills among Foreign Languages Learners", *Opening Writing Doors Journal*, Vol. 11, No. 1.
- Runco, M., & Pritzker, S. 2020. *Encyclopedia of Creativity*. Cambridge: Academic Press.
- Said-Metwaly, S., Moortgate, W. Van den., & Barbot, B. 2021. "Torrance Test of Creative Thinking-Verbal, Arabic Version: Measurement Invariance and Latent Mean Differences Across Gender, Year of Study, and Academic Major", *Thinking Skills and Creativity*, Vol. 39.
- Sari, R. R., & Mubaligh, A. 2019. "Scamper sebagai Strategi Menulis Kreatif Bahasa Arab Abad 21", *Arabi: Journal of Arabic Studies*, Vol. 4, No. 2.
- Stern, M. H. 2019. "Jewish Creative Sensibilities: Framing a New Aspiration for Jewish Education", *Journal of Jewish Education*, Vol. 85, No. 4.
- Sugiyono. 2017. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Susanto, Desrani, A., Ritonga, A. W., & Rubiyantoro, Y. 2022. "Improving Students' Creative Thinking in Learning Arabic Through HOTS Based Project Based Learning Model", *An Nabighoh*, Vol. 24, No. 1.
- Thiagarajan, S., Sammel, D. S., & Semmel, M. I. 1974. *Instructional Development for Training Teacher of Exceptional Children: A Sourcebook*. Indiana University.
- Torrance, E. P. 1965. "Scientific Views of Creativity and Factors Affecting Its Growth", *Deadalus*, Vol. 94. No. 3.
- Torrance, E. P. 1970. *Creative Learning and Teaching*. New York: Harper Collins.
- Torrance, E. P. 1978. "Healing Qualities of Creative Behaviour", *Creative Child and Adult Quarterly*, Vol. 3, No. 3.
- Trisnayanti, Y., Khoiri, A., Miterianifa., & Ayu, H. D. 2019. "Development of Torrance Test Creativity Thinking (TTCT) Instrument in Science Learning", *AIP Conference Proceedings*.
- Yancey, K. 2009. Looking Back as We Look Forward: Historicizing Writing Assessment. In B. Holt & P. O'Neill (Eds.), *Assessing Writing: A Critical Sourcebook*. NCTE/Bedford St Martina.