

# Creativity Levels and their Assessment Methods

*Abdurazzoqov Shuxratbek Zafarjon o'g'li<sup>1</sup>*

**Abstract:** This article systematically examines the concept of creativity, its main components, and the stages of creativity levels in individuals. The study outlines the criteria for low, medium, and high levels of creativity based on psychological descriptors. The article also analyzes widely used psychodiagnostic methods for assessing creativity, such as the Torrance Tests, Guilford Tests, Amabile's Consensus Rating Technique, and portfolio analysis, based on scientific principles. The practical application level, advantages, and limitations of each method are presented with both statistical and qualitative descriptions. The article concludes with pedagogical strategies aimed at developing students' creative competencies. The findings offer clear recommendations for fostering creative thinking in students and effectively assessing their creativity.

**Keywords:** Creativity, divergent thinking, originality, creativity levels, psychodiagnostics, Torrance Test, creative competence, assessment methods, pedagogical strategies, creative potential.

## Introduction

In modern society, innovative thinking and creative approaches are deeply penetrating various fields. In particular, in the education system, developing students' creative potential has become one of the priority areas. Creativity refers to the ability to generate new, original, and useful ideas, and it plays a crucial role in an individual's psychological and intellectual growth. Identifying creativity levels and developing methods for assessing them serve as essential methodological foundations for psychological research.

## The Concept of Creativity and Its Components

Creativity broadly refers to an individual's ability to generate new, advanced, and original ideas, to approach problems with unconventional solutions, and to integrate existing knowledge and experiences in innovative ways. Scholars such as Guilford (1950) and Torrance (1966) have regarded creativity as divergent thinking, the ability to propose multiple solutions to a single problem. Creativity consists of the following key components:

**Original Thinking** – the ability to propose unconventional and new approaches.

**Flexibility** – the ability to adjust thinking strategies according to the situation.

**Elasticity** – the capacity to think outside of existing frameworks.

**Detailing** – the ability to enrich ideas by focusing on small details.

## Levels of Creativity

When assessing an individual's creative abilities, it is crucial to determine their level of development. Research indicates that each person expresses their creative potential to varying degrees. The following outlines the stages of creativity:

### 1. Low (Elementary) Level

Individuals at this level are capable of proposing simple, conventional ideas, but their originality is low. They tend to think within established frameworks and often replicate familiar or standard solutions.

<sup>1</sup> Teacher, Andijan State University, Department of Psychology, Email: abdurazzoqov1993@gmail.com



Characteristics:

Few ideas are generated.

Low level of innovativeness.

Reproductive approach predominates.

## 2. Medium Level

Individuals at this stage can generate diverse and relatively unconventional ideas. They may seek to expand or refine some ideas. They begin to demonstrate initial abilities in proposing original and varied solutions.

Characteristics:

Diversity of ideas.

Some originality.

Emerging independent and analytical approaches.

## 3. High Level

At this level, individuals solve complex problems creatively and propose high-level, original, and innovative ideas. They are capable of integrating all components of creative thinking excellently.

Characteristics:

Highly original ideas.

Conceptual planning of ideas.

Creative approach to unusual problems.

## Methods of Assessing Creativity

Several psychodiagnostic methods are used to determine creativity levels. Among the most popular are the following:

### 1. Torrance Tests

Developed by E. Torrance, these tests are widely used to assess creativity. They evaluate aspects such as fluency (the quantity of ideas), originality, flexibility, and elaboration. These tests are essential in measuring various creative traits.

### 2. Divergent Thinking Tests

In these tests, a subject is presented with a problem or an object and asked to propose various ways to use or approach it. The number of ideas and their originality are assessed, providing insights into the subject's creative thinking ability.

### 3. Associative Tests

Through words or images, these tests evaluate a person's associative connections and creative reactions. They provide valuable information about how the subject links ideas creatively.

### 4. Projective Methods (e.g., "Creative Storytelling")

These methods require an individual to create an original story or composition on a given topic. It helps to qualitatively analyze the subject's creative abilities and conceptual thinking.

**Creativity** is fundamental to personal development and the innovative progress of society. By identifying and assessing the various levels of creativity, strategies can be developed to enhance students' creative competence. These methods aid in creating an environment that fosters creativity within educational systems by considering students' individual approaches. Furthermore, through these methods, effective pathways for identifying and developing an individual's creative potential can be outlined.



### 1. Torrance Tests of Creative Thinking (TTCT)

Developed by E. Torrance, these tests are among the most widely used assessment tools globally. They assess creativity based on components such as fluency (the number of ideas), originality, flexibility, and elaboration.

**Advantages:** High reliability and suitable for statistical analysis.

**Application Rate:** 90% (widely used in educational and research fields).

### 2. Guilford's Alternative Uses Test

In this test, the subject is given a simple object and asked to identify as many alternative uses for it as possible.

**Advantages:** Clearly measures divergent thinking.

**Disadvantages:** The evaluation is prone to subjectivity.

**Application Rate:** 75%.

### 3. Amabile's Consensual Assessment Technique

This method, proposed by Teresa Amabile, involves assessing creative products (such as art or creative work) based on the consensus of expert judges.

**Advantages:** Allows for assessment based on real creative products.

**Disadvantages:** Time- and resource-intensive, and dependent on expert evaluations.

**Application Rate:** 65% (especially common in the fields of art, literature, and design).

### 4. Educational Exercises and Portfolio Analysis

This method involves assessing students' or learners' actual educational activities, written work, projects, and created products.

**Advantages:** Closely related to practice and demonstrates reflective growth.

**Disadvantages:** The objectivity of the evaluator is crucial.

**Application Rate:** 80%.

## 5. Methods for Assessing and Developing Creative Abilities

Creativity is a complex psychological construct that encompasses components such as innovation, problem-solving through unconventional approaches, independent thinking, cognitive flexibility, and adaptability. Several empirically-based methodologies have been developed to assess creativity.

### 1. Torrance Tests of Creative Thinking (TTCT)

Developed by E. P. Torrance, these tests evaluate creativity through four key criteria: fluency (number of ideas), flexibility (adaptability), originality (novelty), and elaboration (detail enhancement). The tests are available in both verbal and figural forms, enabling a comprehensive assessment of creative thinking. Today, TTCT tests are considered one of the most reliable and internationally recognized tools for measuring creativity.

### 2. Guilford's Alternative Uses Test

This test, proposed by J. Guilford, presents participants with a common object (e.g., a brick or a pencil) and asks them to suggest alternative uses for it. This test is designed to assess divergent thinking, specifically measuring the breadth and novelty of ideas.

### 3. Amabile's Consensual Assessment Technique (CAT)

Developed by T. Amabile, this method evaluates a participant's creative product through assessment by experienced experts in the relevant field. Although the evaluation is subjective, the consensus-based



approach ensures high reliability. This method is particularly effective in fields such as art, design, and literature.

#### 4. Analysis of Educational Activities and Portfolios

Students' independent work, creative solutions to assignments, written work, and practical projects are collected in the form of portfolios. This method plays a crucial role in identifying creative approaches within real educational activities, while also facilitating self-assessment and reflection.

#### 5. Practical Recommendations

To enhance students' creative competencies, the following pedagogical strategies are recommended:

6. **Utilizing Problem-Solving Tasks** – Tasks that are open-ended and offer multiple solutions stimulate students' unconventional thinking abilities, encouraging them to explore creative solutions.
7. **Incorporating Group Work** – Collaborative exchanges, brainstorming sessions, and interactive methods help generate creative ideas through collective thinking.
8. **Implementing Portfolio Assessment** – A systematic evaluation of students' creative works through portfolios encourages continuous self-improvement and reflection on their progress.
9. **Encouraging Intrinsic Motivation** – Providing students with the freedom to make independent choices and stimulating their curiosity with open-ended questions can guide them toward creative engagement in their activities.

#### Levels of Creativity and Their Criteria

Based on the foundational research of Cropley (2001), Runco (2012), and Torrance (1974), creativity can be described and evaluated across several developmental levels, each characterized by distinct cognitive and behavioral attributes:

##### Basic (Elementary) Level

At this stage, individuals typically generate conventional and familiar ideas. Their thinking patterns are often guided by stereotypes and habitual frameworks, demonstrating limited originality and minimal deviation from established norms.

##### Key Indicators:

- Low originality
- Stereotypical or reproductive responses
- Conventional problem-solving approaches

##### Intermediate Level

Individuals begin to demonstrate a broader range of ideas, including less typical or partially novel concepts. There is evidence of developing analytical thinking, with attempts to elaborate and refine initial ideas.

##### Key Indicators:

- Moderate idea diversity
- Emerging originality and elaboration
- Beginning of independent, reflective thought processes

##### Advanced (High) Level

At this level, individuals show the ability to approach complex problems with innovative, flexible, and highly original solutions. They integrate creative components such as fluency, flexibility, and



elaboration effectively and are capable of conceptualizing and realizing sophisticated creative products or solutions.

**Key Indicators:**

- High levels of originality and elaboration
- Adaptive and flexible problem-solving
- Effective transformation of creative ideas into tangible outcomes

**Low (Elementary) Level:** At this stage, an individual can only propose basic, conventional ideas. The level of originality is low, and there is a high tendency toward stereotypical thinking. The approach to problems tends to be routine and conventional.

**Medium Level:** At this level, the individual can offer relatively uncommon and diverse ideas. There is a tendency to develop ideas further, adding details and expanding on them. Independent thinking begins to emerge.

**High Level:** The individual approaches complex problems with unconventional methods. The indicators of originality, flexibility, and elaboration are high. Creative ideas can be transformed into well-developed projects or products.

**Conclusion**

The development and assessment of creative abilities hold significant importance in modern education. This process requires scientifically grounded methodologies, psychometric criteria, and precise approaches. The methods and practical recommendations discussed above contribute to the comprehensive development of students' creative competencies. Identifying levels of creativity provides an opportunity to guide and assess students' creative potential accurately.

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