TAGA Beyond

Outcomes of Creativity Development Education in University Settings

Innovative Thinking System for Students (ITSS)
By Business Consultants, Inc. (BCon)

Innovative THINKING system for STUDENTS

BCon Business Consultants, Inc.

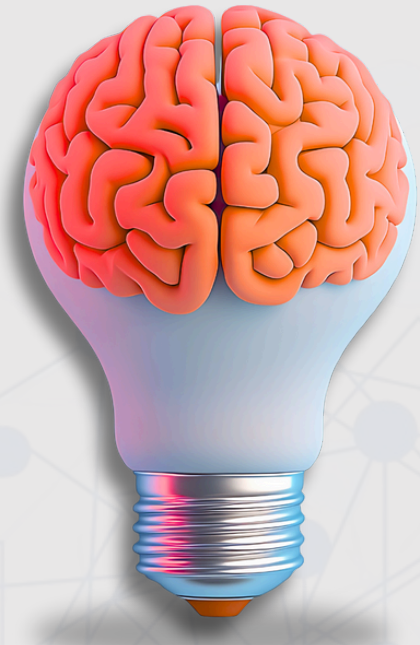
https://its.bconglobal.com/

I. introduction

1.Purpose of This White Paper

This white paper organizes the underlying philosophy and educational framework of **ITSS (Innovative Thinking System for Students)**, a creativity development program for university students developed by Business Consultants, Inc. (BCon).

Based on educational practice data accumulated in Asia, it presents the **outcomes of creativity development education** implemented through ITSS.



2.Neuroscientific Background

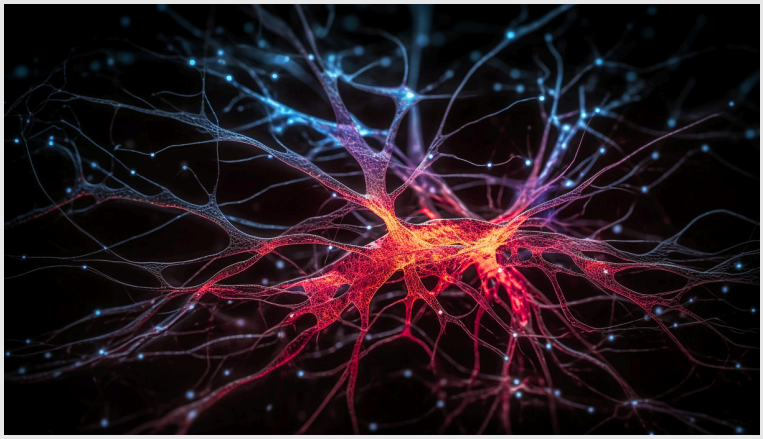
Stabilization and Constraints of Thinking Pathways

The human brain has a natural efficiency mechanism: neural pathways that are frequently used become smoother and more efficient, while those that are rarely used gradually become less accessible.

Through repeated use, neural pathways associated with frequently used patterns of thinking become thicker through myelination, enabling smoother thinking **(stabilization of thinking pathways).** Conversely, less-used pathways become increasingly difficult to activate.

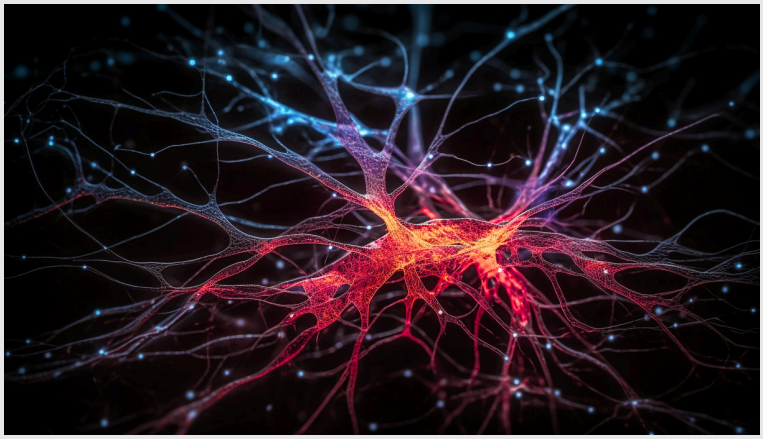
While this characteristic is rational from a survival perspective, it can also lead to a narrowing of one's range of thinking **(constraints on thinking).**

These constraints are natural cognitive processes that can occur in anyone.



3.Neuroplasticity and the Possibility of Overcoming Constraints on Thinking

When individuals consciously activate underused neural pathways and repeatedly adopt new perspectives or behaviors, these dormant pathways can be reactivated.
This demonstrates the brain's lifelong capacity for change —**neuroplasticity**—and indicates that even stabilized constraints on thinking can be overcome through appropriate training.
Based on this premise, **ITSS** defines creativity not as an innate talent possessed by a select few, but as a skill that anyone can acquire through the effective use of brain functions.



II. TAGA
Constraints on Thinking

1.Definition of TAGA

TAGA refers to an unconscious over-reliance on familiar thinking patterns—**mental constraints** that inhibit the generation of new ideas.
It is not merely a habit of thought, but functions as a mental restraint that narrows the range of possible ideas.
In cognitive science, phenomena corresponding to TAGA are described as **cognitive bias**, closely related to the brain's tendency toward efficiency, whereby certain thinking pathways become dominant and thinking tends to settle into fixed patterns.

2.Why Human Thinking Becomes Patterned?

When people feel unable to break away from conventional ideas, TAGA is often at work.
TAGA is not a matter of motivation or ability; rather, it is rooted in the brain's natural tendency to return to familiar thinking pathways.

Like a **"hoop" (TAGA)** that holds a barrel together, TAGA stabilizes thinking while simultaneously making it difficult to step outside established frames.
This dual nature—maintaining order while limiting freedom—lies at the core of TAGA.

III. Foundational Insights on TAGA

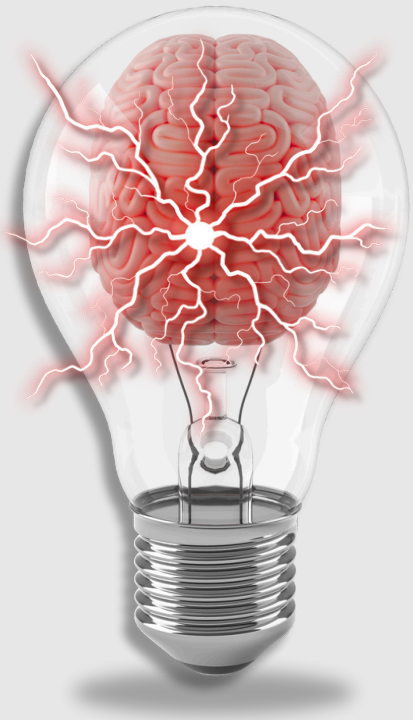
Neuroscience × Cognitive Psychology × Creativity Research

1. Interdisciplinary Perspectives on TAGA

TAGA can be understood through both neuroscience and cognitive psychology.
Neuroscientifically, frequently used neural pathways become smoother through myelination, while unused pathways gradually lose efficiency, making thinking more likely to remain within established patterns.
This biological characteristic underlies phenomena observed in cognitive psychology as cognitive bias.

2. Creativity Research: The Relationship Between IQ and Creativity

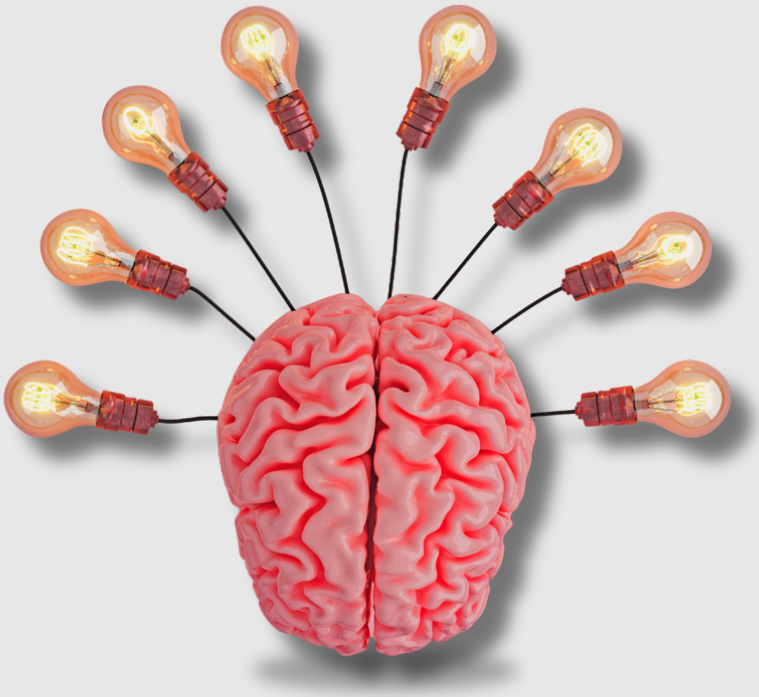
Guilford (1976) demonstrated that high IQ does not necessarily guarantee high creativity.
Highly intelligent individuals often rely strongly on existing logical patterns, which can make it difficult to think beyond established frameworks.
Creativity, however, is a skill that can be developed through practice by acquiring new thinking pathways.
Within ITSS, students deliberately activate new neural pathways through systematic divergent thinking techniques, and empirically verify this transformation through practice.



IV. A Systematic Approach to Going Beyond TAGA

1. Systematic Divergent Thinking Techniques

ITSS provides **systematic divergent thinking techniques** as tools for removing TAGA.
These reproducible thinking skills are designed to expand perspectives, challenge assumptions, and encourage unexpected associations, enabling **the generation of new ideas.**



2. Psychological Safety

Creativity requires the willingness to articulate one's thoughts even when they are incomplete.
ITSS trainers learn how to create psychologically safe learning environments in which students can confidently express ideas generated after stepping outside their TAGA.

3. Collaborative Learning

Through collaboration, individual ideas interact, deepen, and further expand the range of thinking.
Collaboration provides external stimuli that cannot be reached through one's own thinking pathways alone.

V. Classroom Observations Verifying the ITSS Design Concept

Observations of students' behaviors and remarks during ITSS classes confirmed how the program's design concept—the acquisition of a reproducible thinking process for overcoming TAGA—functioned in practice.

This chapter organizes the most representative changes observed from three perspectives.

1. Internalization of Systematic Divergent Thinking: Stabilization of the Thinking Process

One student remarked, "Around the fifth time, I became accustomed to the process," indicating that repeated use of ITSS's divergent thinking techniques enabled the thinking process to become smoother and more natural.

This suggests that the techniques were no longer merely methods, but had begun to take root as an **internalized thinking process**, reflecting the formation of new neural pathways.

> **"Around the fifth time, I became accustomed to the process,"**
>
> One student remarked

2. Learning to Remove TAGA: Awareness of Thinking Patterns

Through repeated sharing of individually developed ideas within groups, students became aware of their unconscious assumptions and biases.

Comments such as “I thought I wasn’t creative, but I realized TAGA was behind that belief” were observed.

These findings indicate that processes for objectively recognizing patterned thinking and beginning to release it emerged spontaneously through the ITSS system.

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>
> One student commented

3. An Unexpected Development: The Natural Emergence of Metacognition

As discussions progressed, students began asking questions such as “Why did you arrive at that idea?” and “How could this be expanded further?”

This indicates the emergence of **metacognition**—the ability to observe and manage one’s own thinking from a higher-level perspective.

Beyond simply generating ideas by removing TAGA, students developed the capacity to flexibly handle their own thinking processes.

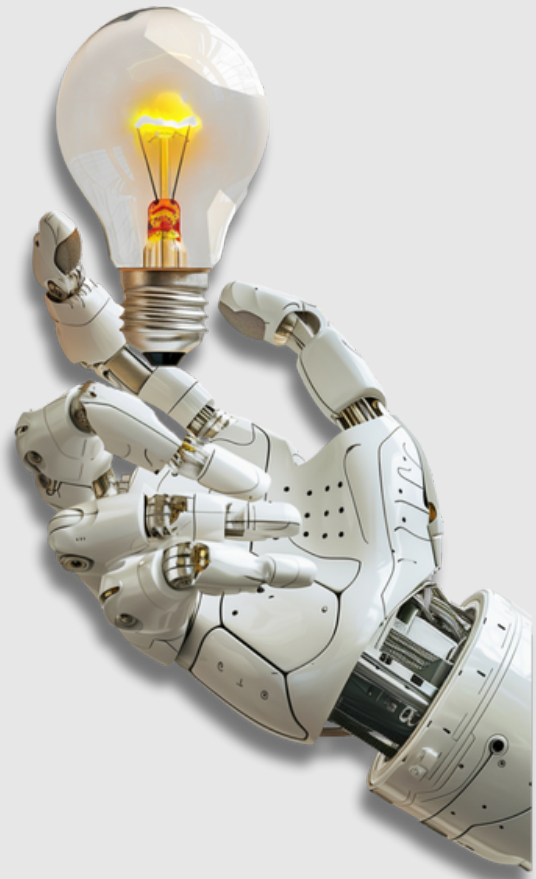
This outcome exceeded the original expectations of ITSS and represents a significant achievement in creativity development education.

VI. The Value of “Going Beyond TAGA” in the Age of AI

As AI becomes more advanced, what is increasingly required of humans is the ability to go beyond biological and psychological constraints on thinking (TAGA) and create new meaning and value.

While AI excels at identifying correlations within vast datasets, intentional creative acts—questioning assumptions, reorganizing existing pathways, and reconstructing meaning—remain uniquely human.

ITSS is an educational model that systematically cultivates this **“creativity beyond TAGA”** and can serve as a vital framework for generating human-centered value in the age of AI.



Thank you