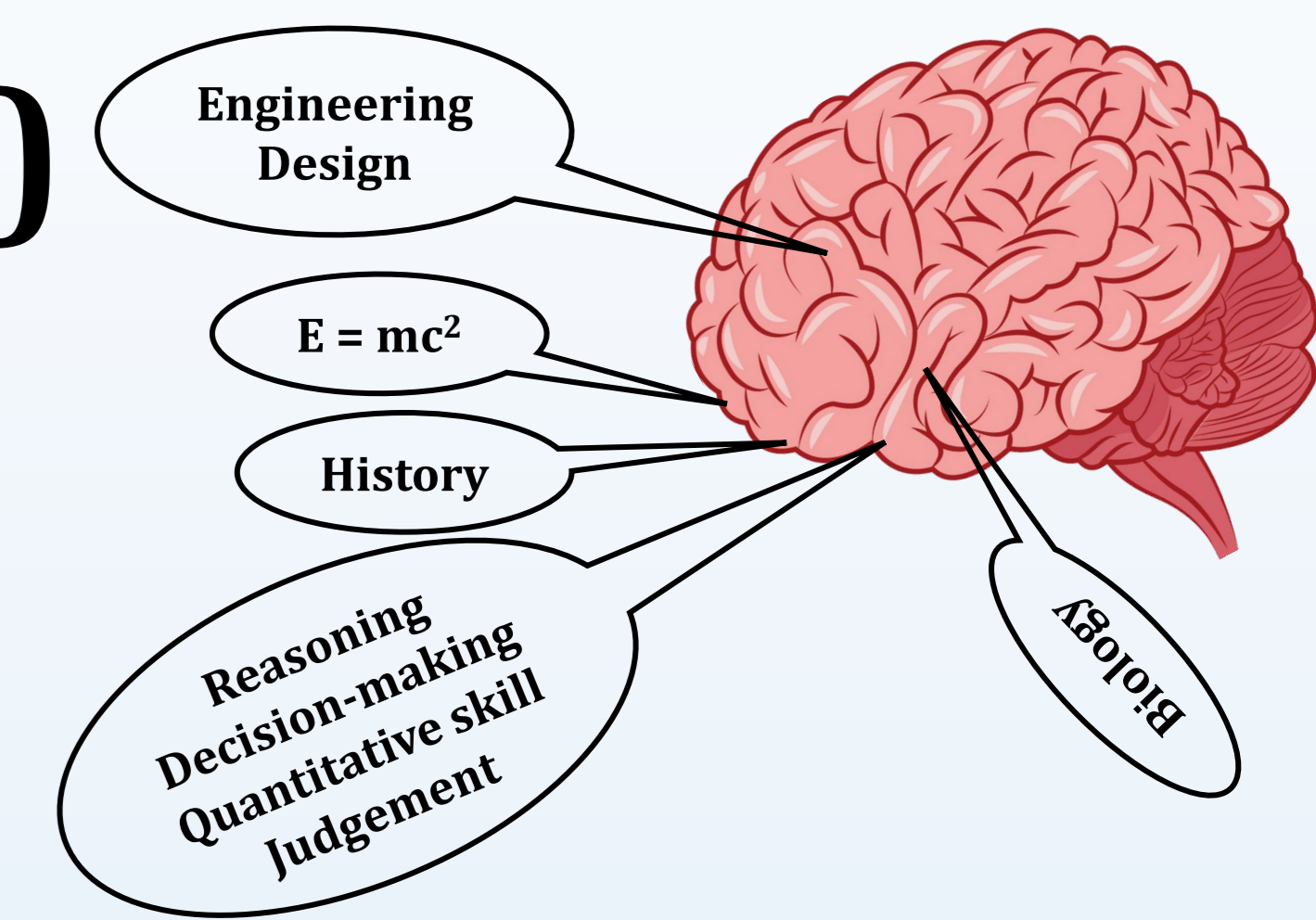




# A Novel Brain-Function Based Design of Curriculum and Pedagogy (*Brainaculum*) - A New Educational Approach of 21<sup>st</sup> Century



THAPAR INSTITUTE  
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Group-A2

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## Introduction

**Brainaculum: A Brain-function based design of curriculum and pedagogy that uses the knowledge of Neuroscience and Psychology**

**The Goal**

**Students (UG and PG) and Teachers of TIET**

**Long-lasting and Holistic Learning**

**Target Group**

## Problems in Hand

- Students are less motivated to attend classes, gathering knowledge and deep thinking
- Gaps exist between preferred learning styles of students and preferred teaching styles of teachers

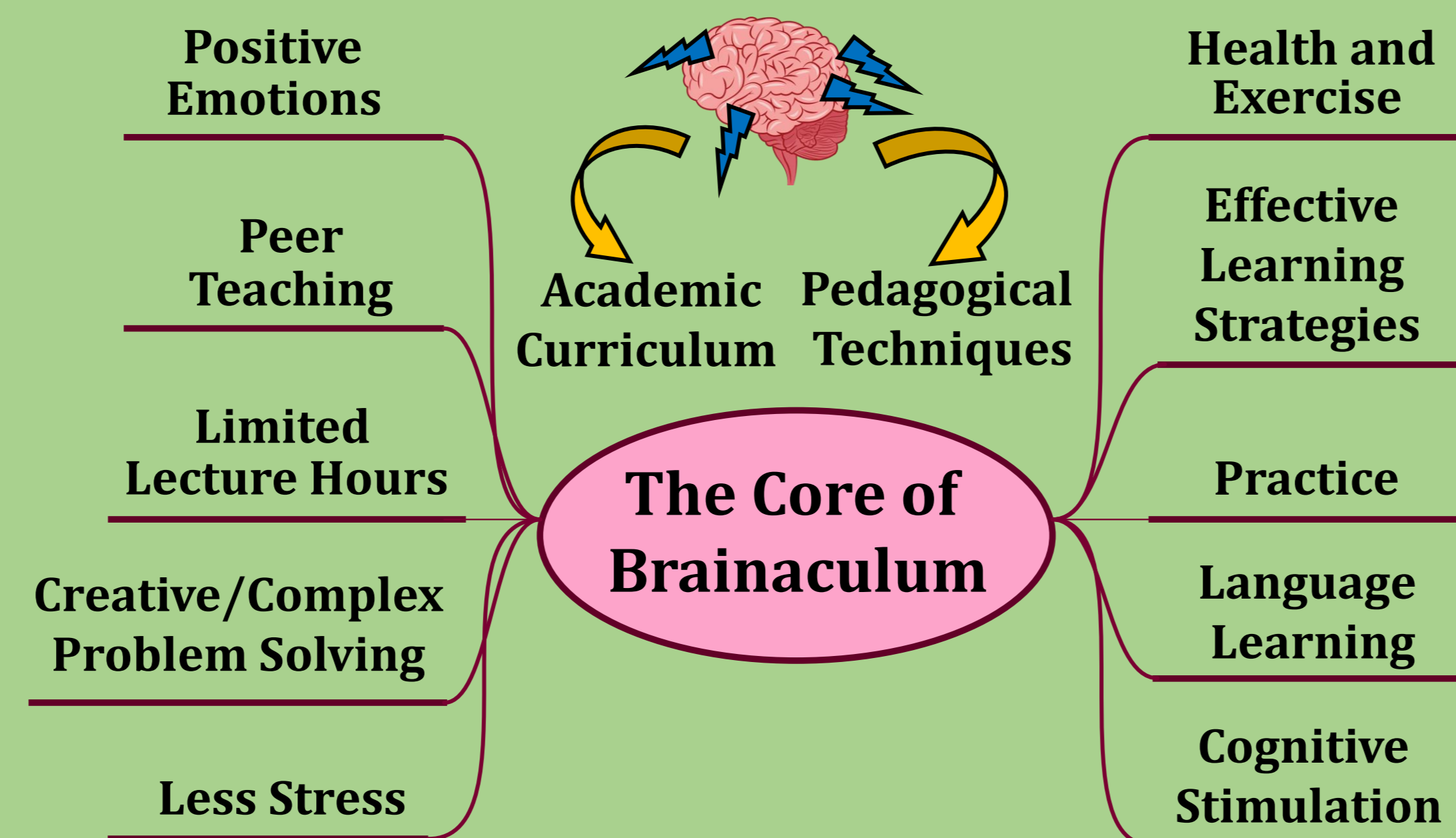
## Roots of the Problems



So on .....  
**Too Many Classes a Day**  
Low Dopamine in the unhappy brain

- Less time to **think and link** between the topics taught
  - Persistent **inattention** problem<sup>1</sup>
  - Lack of **motivation**<sup>2</sup>, learning and **memory**
- Physiological and Psychological Tiredness**
- Teachers are less trained in **Educational Psychology**

## Ideate A Unified Solution

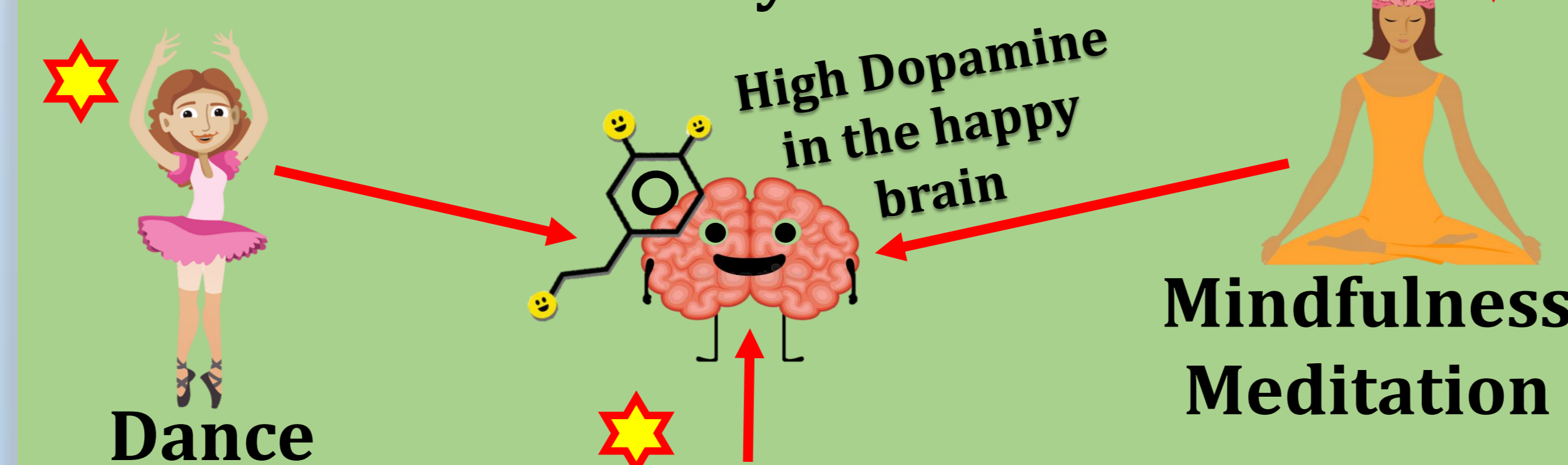


In a class one is teaching 100 other s

## Prototype of the Solution

★ Reduce number of classes (**Increased Spacing between Classes**)<sup>3</sup>

Reduce the Declared Syllabus



★ **Study-Strategy Training for Students & Teachers: Knowledge, Belief, Commitment, and Planning (KBCP) framework**<sup>4</sup>

★ **FDP for Teachers: Educational Psychology**<sup>5</sup>

★ **Application of 'Learning Inventory' by the Teachers (The Index of Learning Style): Matching the teaching and learning styles**<sup>6</sup>

★ **Train Your Brain Tools: Improve Attention, Memory, Rule (Abstract) Learning**<sup>7</sup>

## Applying the Solution on the Target Groups

**Applicable for Both Engineering Institutes and Universities**

Average Course Credit: **04**

Total Class Hour for a 4-Credit Course: **60 (UGC Guidelines)**

**Not all 4 but only 2-courses (Related and/or Knowledge transfer is Possible) will run for 2-weeks consecutively**

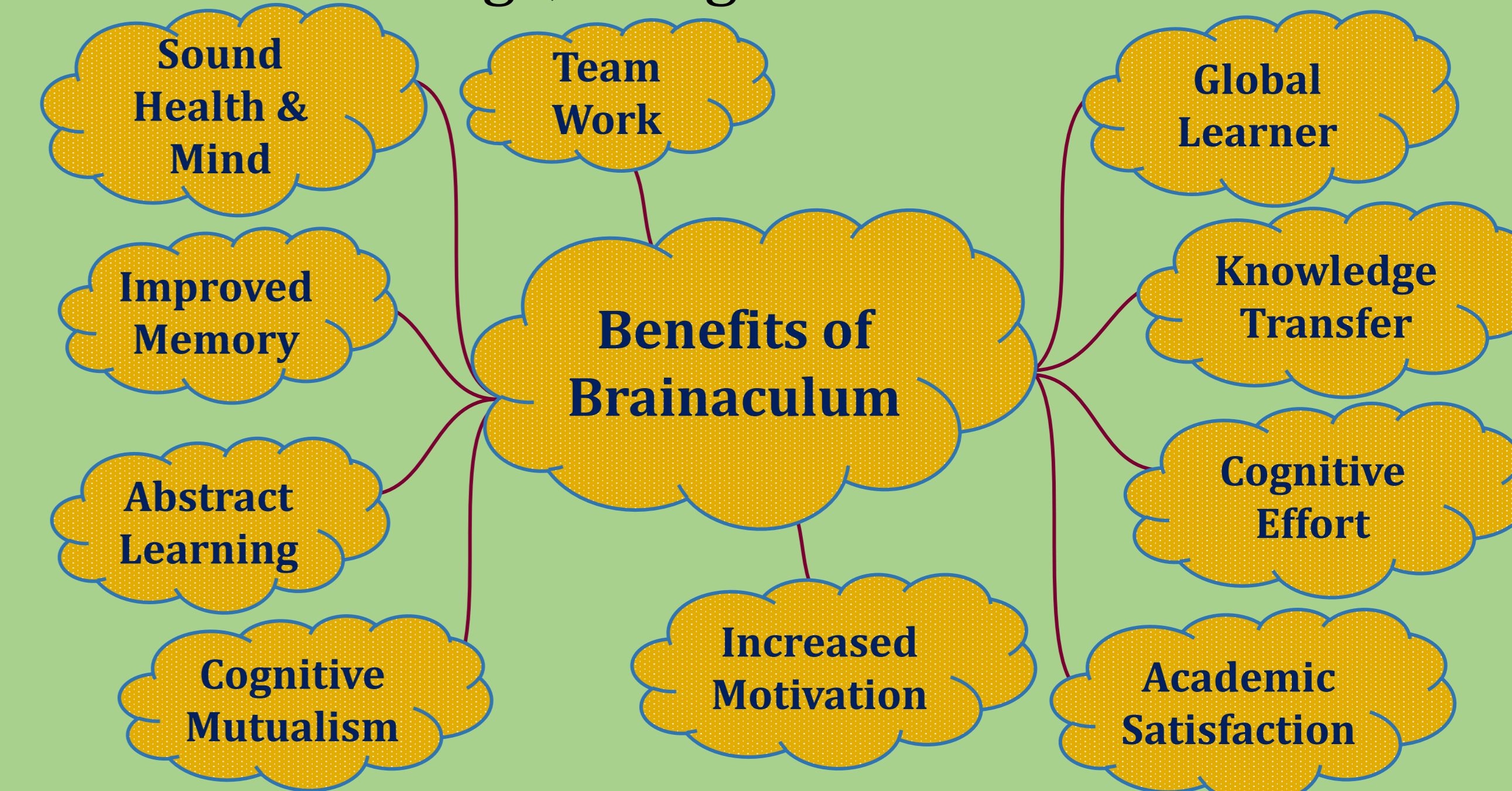
2-other courses then will follow the same path

Evaluation Process must **Recognizes Creative Outcomes**



## Outcome: Boosting Human Learning

- Strengthen building '**Mental Schema**' (a cognitive construct that organizes and interprets new knowledge, and guides our behavior via memory)<sup>8</sup>



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