The Seven Stages of the Creative Thinking Process (CTP) in Classrooms

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CAT’s Cradle: Creative Climate/Attitude/Thinking (Kim, 2011)
The Four Climates for Gardening Creativity (Kim, 2012)

Sun Climate:
- Sunbeam: Inspiration
- Warmth: Encouragement

Storm Climate:
- Wind: Challenge
- Rain: Discipline

Soil Climate:
- Nutrients: Resources
- Firm Soil: Identity Development

Time Climate:
- Time: Patience
- Consistency: Trust
- Autonomy: Freedom
The Sun Climate

- Sunbeam
  - Inspires children to find a big vision

- Warmth
  - Supportive environments

- Gives direction & encouragement
Sun Climate: Sunbeam & Warmth

**Inspiration:**
- Inspired
- Outreaching
- Passionate
- Energetic

**Encouragement:**
- Confident
- Curious
- Playful
- Spontaneous
- Humorous
The Storm Climate

- Adversity
  - Provides challenge & discipline
  - To build persistence & independent thinking
  - For taking risks on creative endeavors

- Creativity involves risk
  - Creative thinking starts with diverging from norms
  - Creators face many frustrations & failures
Storm Climate: Wind & Rain

Challenge:
Hard-working
Persistent
Independent
Risk-taking
Courageous
Resilient

Discipline:
Self-disciplined
Autonomous
The Soil Climate

- Nutrients
  - Provides children with various resources
    - Educational resources, mentors, & diverse experiences
      - With diverse people, ideas, religions, & cultures
  - While absorbing diverse resources
    - Need to maintain their own familial & cultural identities
      - Just like roots hold to firm soil
Soil Climate: Nutrients & Firm Soil

Resources:
Open-minded
Judgment-deferring
Complex
Resourceful

Identity Development:
Identity-keeping
Marginal
Multi-cultured
The Time Climate

- **Time & Consistency**
  - Allows to develop their identities with patience

- **Autonomy**
  - Without imposed expectations or stereotypes
  - To discover & express themselves
Time Climate: Time, Consistency, & Autonomy

**Patience:**
- Self-expressive
- Sensitive
- Empathetic

**Trust:**
- Self-aware
- Reflective

**Freedom:**
- Non-conforming
Creative Thinking

- Divergent thinking
  - Generating many, flexible, & original ideas spontaneously

- Convergent thinking
  - Evaluating the ideas & selecting the best idea

- Emergent thinking
  - Abstracting, integrating, & refining the idea
The 7 Stages of Creative Thinking Process (Kim, 2011)

1. Idea Accumulation
2. Problem Finding
3. Idea Generation
4. Idea Refinement
5. Idea Evaluation
6. Implementation
7. Unconscious Processing
CTP Stage 1:
The Idea Accumulation Stage

• The 10-Year Rule
• Take notes to accumulate ideas today
CTP Stage 2: The Problem Finding Stage

- Find problems: *Biggest barrier to divergent thinking in the school*
Divergent Thinking Rules

• As many as possible
  • Quantity is more important than Quality
• Flexibility: As many different kinds as possible
• Originality: As unique as possible
• Be spontaneous, playful, & childlike
• Defer judgment: Open-minded
  • No criticism or praise
• Need constructive conflict
• Encourage piggybacking
• Encourage wild ideas
• No pressure
• Set Quota
  • e.g., 50 ideas
CTP Stage 2:
The Problem Finding Stage

- Find the **underlying** problem
- Convergent thinking
CTP Stage 3: The Idea Generation Stage

- Generate Ideas to solve the underlying problem
  - Divergent thinking
  - Rules
CTP Stage 4: The Unconscious Processing Stage

• Mental break
Exploring your World of Creativity

• TTCT (Torrance Tests of Creative Thinking) Rules
• Be playful & childlike
• There are no wrong answers
  • No need to ask questions
• No erasures or cross-outs
  • Creative flow
• Original, Interesting, & elaborate
• Descriptive title
CTP Stage 5: The Idea Evaluation Stage

• Pick the top 10 solutions
  • Consider how an idea might work
  • Consider new & original ideas

• Evaluate the solutions using criteria to rank them
CTP Stage 5: The Idea Evaluation Stage
Example Criteria

Cost?          Legal?          Hasn’t been tried?
New?           Original?       Possible?       Ethical?
Can be modified? Acceptable?   Appropriate?
Last longest?  Time?           Effective?
Solve fastest?  Easy?           Most beneficial?
Extra benefits? Necessary resources?
Can be sold?   Creates more problems?
CTP Stage 5: The Idea Evaluation Stage

- **Criteria**
  - Must be important for picking the best solution to the problem
  - Must be worded in a positive way
  - Most efficient, least expensive

✓ Choose the 5 Criteria that will help select the best solution
CTP Stage 5:
The Idea Evaluation Stage
Draw a Grid with Solutions & Criteria

<table>
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<tr>
<th>criteria→</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Totals</th>
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CTP Stage 5: The Idea Evaluation Stage
Use Each Criterion to Rank Each Solution
The best solution has the highest total

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<th>solutions↓</th>
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CTP Stage 6: The Idea Refinement Stage

- Develop an action plan to implement the best solutions
  - Describe in detail how you will apply the solution to the problem
  - Explain the who, what, when, where, how & why
  - Consider sources of assistance & resistance to your plan

- Plan & elaborate: Emergent thinking
CTP Stage 7: Idea Implementation

• Emergent thinking
  • e.g., Just do it!

• Present your implementation plan to those who need convincing

• Poster, song, and skit
Growing Creative CATs
(Creative Climates, Creative Attitudes, & Creative Thinking)

- Questions & Comments?
- Email Dr. Kim at
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- Khob-koon!