FUTURE PROBLEM SOLVING PROGRAM INTERNATIONAL, FPSPI

TEACHING KIDS HOW TO THINK, NOT WHAT TO THINK

Opening Doors to the Future

Challenging today's students – tomorrow's leaders

"We must prepare students for *their* future not *our* past."
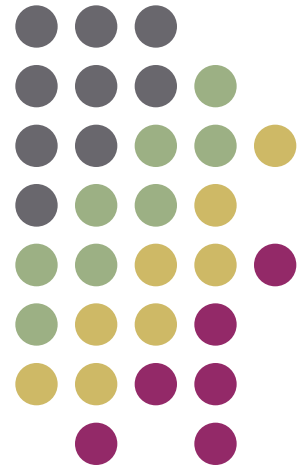
--David Thornburg

"Typical Student" Activity

1. How old-today-is a typical student with whom you work?

2. In what year were you that age? (shhh..write it down)

"Typical Student" Activity

1. What does your student today accept as ordinary or commonplace, that you did not *even* imagine then?

2. In what year will he/she be the age that you are now?

"Typical Student" Activity

How might her/his world, differ from yours today?

Beginnings

The Future Problem Solving program (FPS) was founded in 1974 by *Dr. E. Paul Torrance*, who is recognized worldwide for his work in creativity and education. FPS is based on the Creative Problem Solving (CPS) process developed by Alex Osborn & Sidney Parnes. FPS is applied to the potential challenges of the future.
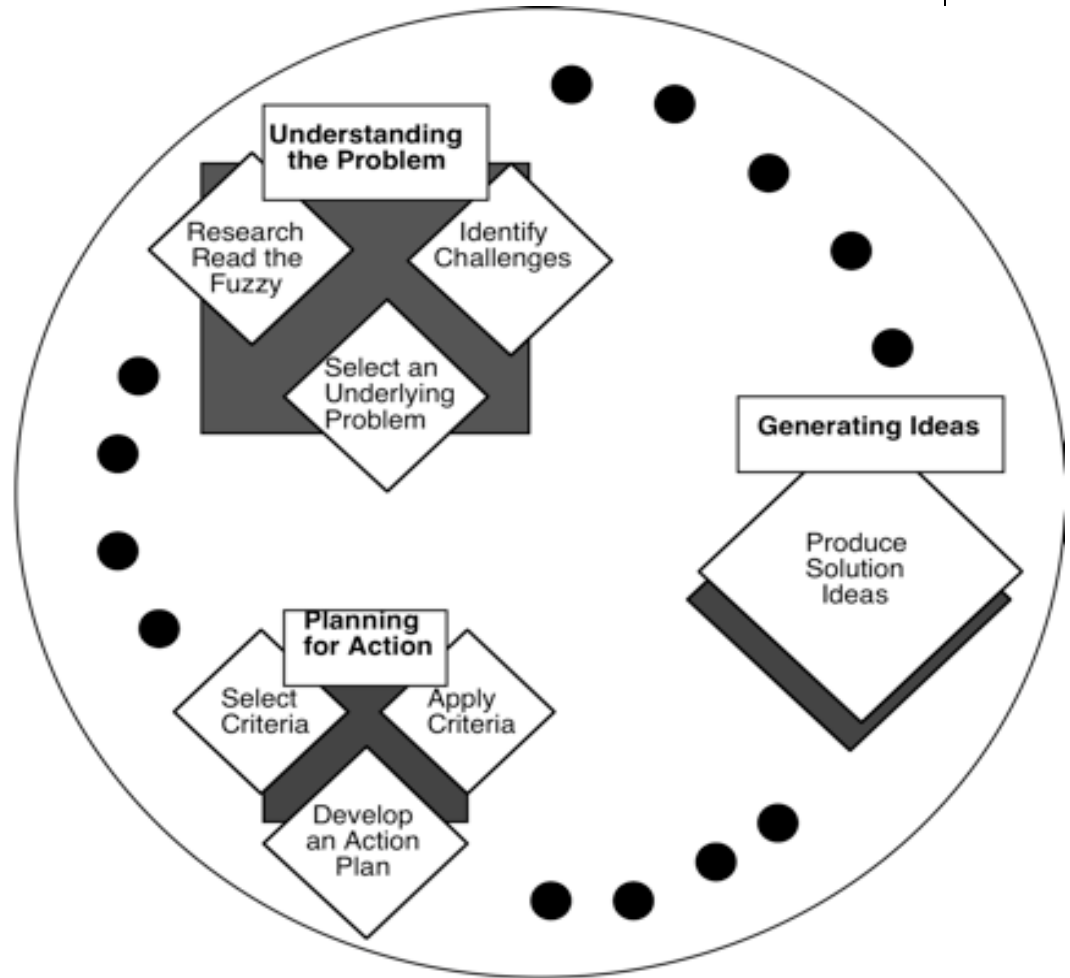
FUTURE PROBLEM SOLVING, FPS

- **Future**- focused 20 - 50 years into the future

- **Problem**- genuine problems from today's world are selected for study-environmental, legal, social, tech, etc)

- **Solving**- a structured six-step problem solving method is taught and applied

- **Program**- a program with national + international participation in both competitive and non-competitive formats is provided.

FPS is…

- A **Cohesive** Process – all steps work together

- A **Sequential** Process – each step builds on the one before

- A **Developmental** Process – each practice shows growth in the process.

FPS & the Arizona Department of Education, AZED

FPS works closely AZED's new ELA standards:

- Aligned with college and workforce expectations
- Inclusive of rigorous content and applications of knowledge through higher-level thinking
- Research and evidence based
- Broad in nature allowing for a wide range of student learning

FPS Goals

To prepare students for their futures

by developing key skills:

- *Critical and Creative Thinking*

- *A Futuristic Consideration*

- *Effective Research Abilities*

- *Teamwork & Individual Responsiveness*

- *Oral and Written Communication*

- *Intellectual Courage-Perseverance-Humility-Empathy and Fairmindedness*

The CPS/FPS Connection

FPSP Structure

- **Academic Components**
  FPS Booklet
      - team
      - individual
  CmPS
  Scenario Writing
  AbPS
- **Assessment and Feedback**

CPS Process

- **Three Components**
- **Six Stages**
- **Tools:**
      Generating
      Focusing

CPS + FPS = p2

The Six Step Process

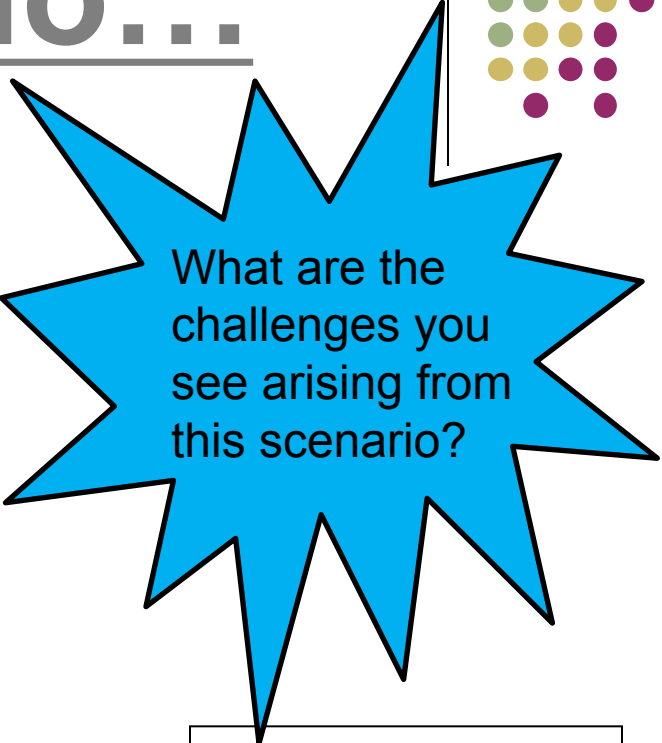**Research and Analyze the Future Scene or Community Problem** →

1. **Generate 16 Challenges**
2. **Identify the Underlying Problem**
3. **Generate 16 Solutions**
4. **Select 5 Criteria**
5. **Analyze the 8 Solutions**
6. **Develop the Action Plan**

A sample scenario…

There was an old woman
Who lived in a shoe,
She had so many children
She didn't know what to do.

She gave them some broth,
Without any bread;
Then spanked them all soundly
And put them to bed.

What are the challenges you see arising from this scenario?

- Psychological Health?
- Social Relationships?
- Financial?
- Physical Health?

Generating Tools

- **Brainstorming**
- **Brainwriting**
- **Force-Fitting**
- **S.C.A.M.P.E.R.**
- **Morphological Matrix**
- **Ladder of Abstraction**

Category List for Generating Ideas
(Steps 1 & 3)

- **Arts & Aesthetics**
- **Basic Needs**
- **Business & Commerce**
- **Communication**
- **Defense**
- **Economics**
- **Education**
- **Environment**
- **Ethics & Religion**

- **Government & Politics**
- **Law & Justice**
- **Miscellaneous**
- **Physical Health**
- **Psychological Health**
- **Recreation**
- **Social Relationships**
- **Technology**
- **Transportation**

Focusing Tools

- **Hot Spots, Highlighting**
- **Sequencing: SML**
- **Identifying Hits**
- **Evaluation Matrix**
- **Paired Comparison Analysis**
- **ALoU**

Future Problem Solving Program International FPSPI:

COMPONENTS

**GLOBAL ISSUES
Team & Individual
Booklet
3 Divisions
2 Practice
Problems;
3 Competitive
Problems**

**COMMUNITY
PROBLEM SOLVING
3 Divisions
Team & Individual
Evaluation &
Interviews Provided**

**SCENARIO
WRITING
3 Divisions
Evaluation
Provided**

**ACTION BASED
PROBLEM SOLVING
3 Divisions
Team & Individual
Evaluation &
Interviews Provided**

**SCENARIO
PERFORMANCE
3 Divisions
Evaluation
Provided**

Global Issues Problem Solving (GIPS)

- Competitive grades 4-12
- 4 team members
- 3 divisions:
  - Junior, Grades 4-6 (+Novice)
  - Middle, Grades 7-9
  - Senior, Grades 10-12

Magic & Individual Competitions also offered at IC**

GIPS-Options in the classroom

- **as an elective subject**
  (full-year or semester)

- **as an extension subject**

- **as a subject-based exercise**

- **as a teaching strategy**

SELECTED TOPICS 2017-2018

- Practice Problem #1 – *Spread of Infectious Diseases*

- Practice Problem #2 – *Toxic Materials*

- Qualifying Problem – *Psychological Disorders*

- Affiliate Bowl – **Cloud Storage**

- Intl. Conference – TBA 3/2018

Presentation of Action Plan

- Skit to show the Action Plan

- Created after writing the Booklet

- Two-four Minutes in length

- Props made from Prop List

- PAP Separate Competition at Bowl & IC

- Creativity encouraged!

Scenario Writing

- Story based on one of 4 yearly topics

- Must be at least 20 years in the future

- No more than 1500 words

- Competitive at the National and International levels

- Top National winners & Top 5 International Winners / division are invited to IC for team Scenario Writing Group Competition

Scenario Performance

- Performance story based on one of the 4 annual topics

- Futuristic story presented in a 4-5 minute video or live at Competitions

- Performance is storytelling-*style,* not reading aloud

- Performances are creative and entertaining- no costumes or props allowed

Community Problem Solving

- **Apply problem solving process to real community problems**
- **Teams of any size**
- **Individual competition**
- **Teams submit project reports for evaluation**
- **Affiliate & International invitations**

Action Based Problem Solving

- **6 Step Process taught**

- **Larger groups or classroom**

- **Non-competitive**

- **Evaluations provided**

- **Culminating project fair**

FPSPI...

- Education's Best Kept Secret
- Teaching students how to think, not what to think
- Opening doors to the Future for students & adults
- Creative & Critical Thinking in Action
- Teamwork & Individual Pursuits
- Problem Solving for Life
- Rigorous Academic Challenges
- FUN!

FUTURE PROBLEM SOLVING PROGRAM INTERNATIONAL, FPSPI

Bright Minds for a Brighter Tomorrow

www.azfps.org

www.fpspi.org

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