

[Original Article]

Facilitating creative problem solving process as a teaching tool in fashion marketing classrooms

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Abstract

A teaching manual was developed to incorporate the creative problem solving process into a fashion marketing course. Students' creativity, problem solving, critical thinking, and analytical thinking are promoted by applying the creative problem solving process systematically to solve authentic business problems experienced by local apparel business owners. This teaching manual is based on the FourSight Model that consists of Clarify, Ideate, Develop, and Implement. Various tools promoting divergent thinking are also utilized in the process. A local fashion business is invited as a problem owner and four resource groups are formed with students based on the results of the Kirton Adaption Innovation Inventory. Each resource group consists of 6-8 students. The creative problem solving process is implemented into a classroom setting as four 75-minute sessions that are held twice a week for two consecutive weeks. The local fashion business owner will be in presence during the first (Clarify) and last (Implement) sessions. The instructor facilitator meets with the problem owner outside the classroom three times including pre-session client interview, after the second (Ideate) session, and before the third (Develop) session. This modified CPS manual for fashion marketing and merchandising courses provides practical guidelines to work with local fashion businesses while providing students with learning opportunities of the creative problem solving process.

Keywords: creative problem solving, divergent thinking, critical thinking

I. Introduction

Creativity and problem solving are key innovation and learning skills that have been identified as crucial for success in the 21st century. Trilling and Fadel (2009) explained that the 21st century skills consist of a domain of core skills called the Traditional Core Skills and three other domains of skills including the Learning and Innovation Skills, and the Career and Life Skills, and the Digital Literacies Skills. Trilling and Fadel (2009) argued that these are what young people need to succeed as individuals, citizens, and workers in the 21st century and that an educated person must have creativity and innovation skills as well as think logically and solve problems effectively. Kivunja (2014, p. 86) put these skills into the formulation as follows:

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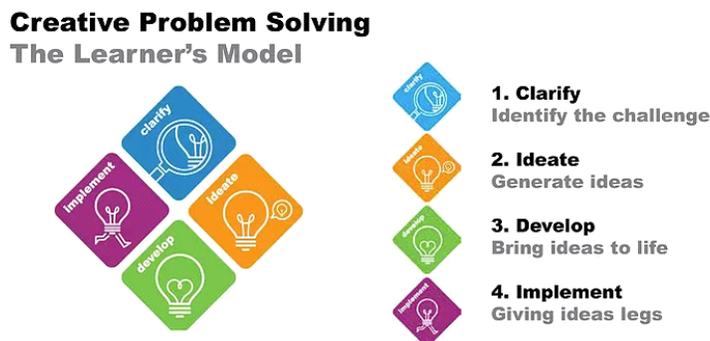
$JR21CS = f(TCS + LIS + CLS + DLS)$
 Where, JR21CS = Job readiness with 21st century skills,
f = is a function of
 TCS = Traditional Core Skills - reading, basic literacy, and numeracy;
 LIS = Learning and Innovation Skills - critical thinking, problem solving, and creativity;
 CLS = Career and Life Skills - flexibility, adaptability, initiative, teamwork, and leadership;
 DLS = Digital Literacy Skills - technological proficiency, digital fluency, computing, media and information literacy

Creativity can be a social, collaborative process as well as someone’s own ability to engage in deliberate cognitive exercises. Communicating ideas with others, and knowing how to receive and deliver feedback are key to this process. A facilitating manual was developed to incorporate the creative problem solving process in teaching fashion marketing and merchandising strategies as well as improving students’ creativity and problem solving skills for a fashion marketing course at a four-year state university located in the Northeast region of the U.S. This creative problem solving teaching manual is based on the the FourSight Model framework (www.foursighonline.com or www.rogerfirestien.com; Fig. 1).

The instructor will contact small-sized fashion businesses located in the neighborhood community or region and identify a potential client for in-class CPS session. Business owners / managers who are facing challenges or problems in the area of marketing, merchandising, customer relationship, and retail management will be invited as a guest to class for CPS process. The instructor (facilitator) will meet the client for an interview prior to the semester. During the interview, the facilitator will collect data on the client’s vision, situation, and challenges using the Client Interview Worksheet (Miller, Vehar, Firestien, Thurber, & Nielsen, 2011b; see Fig. 2). During the meeting, the client will be also informed of CPS process and possible outcomes to make sure CPS is appropriate for the challenges the client has. The client’s ownership of the challenge, motivation, and need for creative solutions will be taken into consideration as well. The four ground rules for converging ideas (Be affir-

II. Preparation for Creative Problem Solving Process

1. Client identification



<Fig. 1> The FourSight model
 From Firestien. (2017a). <https://rogerfirestien.com>

Client Interview Worksheet

Based on your client interview, complete the information below.
 Attach extra pages as needed, especially for "data."

Client : _____
 Date: _____
 Area of Concern (initial goal, wish, challenge): IWBGI... I wish... _____

Data

- | | |
|--|--|
| What is a brief history of the situation? | When is the situation occurring or reoccurring? |
| Who is involved in the situation? | When would you like to have action taken? |
| Who is the decision maker? | How long has this been a concern? |
| How do you own this challenge? | Why is it a concern for you? |
| Who needs to be a part of the solution? | Why might this be an opportunity for you? |
| Who might gain if the situation is resolved? | What's been thought of or tried already? |
| What successes have you achieved so far? | What are your gut feelings about this challenge? |
| What are things that have helped you? | How are your feelings affecting your behavior? |
| What are some obstacles you've encountered? | What might be your ideal outcome or goal? |
| Where have you found help? Obstacles? | What else? |

Initial problem statement(s): H2... HM... IWWM... WMBAT... _____

Purpose and desired outcomes of upcoming session: _____

Session Plan

CPS Stage: _____
 Statement (w/starter): _____
 Initial tool selection: _____

<Fig. 2> Client interview worksheet
 From Miller et al. (2011b). p. 23

mative, Be deliberate, Check objectives, and Consider novelty) will be explained to the client as well. The client should be available to visit the class at least twice and for meetings with the facilitator outside the classroom during the CPS process.

2. Resource group formation

Students enrolled in a senior-level fashion marketing course will be the resource group members. Four resource groups will be formed with 6-8 students. The instructor will administer The KAI (Kirton Adaption-Innovation) Inventory consisting of 32 items measured on a five-point scale (Kirton, 1976, 2003) to understand different types of student creativity. Since its development in 1976, Kirton's Adaption-Innovation theory and associated measure have contributed

greatly to the field of individual development and organizational management including successful leadership. The KAI theory posits that everyone is creative; but different in cognitive style and problem solving. A sound, successful organization or leadership should incorporate a coping process to bridging the cognitive gap between entities by understanding the existence of the differences and practicing facilitating roles. Based on the results of the KAI Inventory, students are assigned to a resource group. Each resource group will have a good mix of students who are more adaptor- or more innovator-oriented.

3. CPS and verbal creativity

The FourSight CPS process will be introduced to fashion students and a copy of the FourSight Model

brochure (FourSight, 2011) will be given to each student for their reference. The four steps (Clarify - Ideate - Develop - Implement) will be thoroughly explained to students with diverging tools including Phrase Challenges as Questions, Why? What's Stopping You?, Stick'em Up Brainstorming, Brainwriting, Forced Connections, and the Idea Box (Miller, Vehar, Firestien, Thurber, & Nielsen, 2011a). All diverging tools will be practiced fully by students until they get comfortable with them. Students will be asked to apply the four ground rules for diverging (Defer judgment, Strive for quantity, Seek wild, unusual ideas, and Build on other ideas).

In addition, the instructor will utilize the Verbal TTCT® (Torrence® Test of Creative Thinking) type exercises to stimulate students' creativity and to make them more fluent in verbally expressing their creative ideas. The types of exercise focusing on verbal creativity include Ask-and-Guess, Guessing Causes, Guessing Consequences, Product Improvement, Unusual Uses, and Just Suppose. The instructor will train students to become more effective as a resource group. A sample practice exercise on divergent thinking using the "Stick'em up Brainstorming" technique is given in <Fig. 3>.

Warm-up for generating ideas

- To briefly train you in the methods we will be using
- To "sanction" the time for speculation
- To create a judgment free zone

Stick'em up Brainstorming

- **Write** your idea on a post-it
- **Say** your idea **out loud** so that others in the group can hear it
- **Hand** your idea **up** to the facilitator
- Phrase your idea like an action, not a description
- One idea per post-it

III. Organizing CPS Session in a Classroom Setting

The instructor will facilitate CPS sessions with the real client from the local community. Since the class meets twice a week for 75 minutes, a full CPS session should be conducted over several class periods. On the first CPS session, the client will be invited to class and talk about their business and challenges or problems that need CPS solutions. The CPS session will take place in a regular classroom but the desks and chairs will be set up for a typical CPS session. Students in the resource group will be sitting in the U-shaped tables along with the client and the rest will be sitting on the other side of the classroom observing the CPS process in action. A student will be asked to be a facilitating buddy for each CPS session.

1. The first CPS session - Clarify

General CPS instructions will be informed to the client as well as to the resource group. The instructor briefly introduces CPS process, roles in a CPS session for client, resource group, and facilitator (see Fig. 4), ground rules for diverging and converging, and an

Ground rules for diverging

Defer judgement

Strive for quantity

Seek wild and unusual ideas

Build on other ideas

What might be all the ways to use 3 million boxes of buttons?



<Fig. 3> Stick'em up brainstorming



<Fig. 4> Roles in a CPS session
Adapted from Firestien. (2017b).
<https://rogerfirestien.com>

agenda for the day. A warming-up activity will be introduced to make all participants get ready for the first CPS session. One of the resource groups will be asked to volunteer for the first CPS session (probably, the group who feel most comfortable with generating ideas extrovertly). Client summary for the resource group is available as the CPS session begins. The client goal is given in the “I wish…” statement and presented with key data to the resource group (Fig. 5).

After the client introduces his/her business goal and key data around it, the resource group may ask questions for further information. The client sits with the resource group and participates in formulating the challenge questions using “How to…”, “How might…”, “In what ways might…”, and “What might be all the…”. During generating challenging questions, don’t forget to ask the client whether the session is going on the

right direction. After generating a minimum of 30 challenge questions, the client is asked to come up to the boards and converge challenge questions using the “Highlighting” tool including Mark the “HITS”, Group the related “HITS” together, and Restate the cluster using “How to…” When restating the clusters, the facilitator should help the client choose a right wording to represent the ideas without changing the substantive meaning of the idea cluster (see Fig. 6). Once the client chooses one restated challenge cluster as a priority, the first CPS session ends.

2. The second CPS session(s) - Ideate

The facilitator will run the Ideate session with students only. All resource group students will be asked to generate ideas for the challenge question chosen from the first CPS session with the client. Again, before beginning the second CPS session, a warm-up diverging activity will be practiced to ease student anxiety for creativity. The goal of this Ideate session is to have a minimum of 100 ideas generated.

After the session, the client will be contacted to review the ideas generated from the Ideate session. If the client needs to have more ideas generated or ideas in different directions, additional Ideate session can be arranged. After student-run Ideate session(s), the client will again use the “Highlighting” to group ideas into idea clusters with a cluster title starting with a verb. The facilitator should check on these idea clusters and their titles as they should be possible solution

I wish I could contribute to the community activities as an artist.

- A professional painter for four years
- She has a strong family bond
- She was involved in kid’s education (3rd grade) through church for two years
- Likes being with kids; but somewhat uncomfortable around them because she does not know how to please or entertain them well

Challenge Statements: H2, HM, IWWM, WMBATW

Client Information



Restate the issue from as many perspectives as possible using...

- How to...
- How might...
- In what ways might...
- What might be all the way

<Fig. 5> “I wish…” and challenge statements



<Fig. 6> “Highlighting” with the client
Photographed by the author. (March 11, 2018).

ideas for the challenge question not for a new challenge that may need another CPS process. The idea clusters will be prioritized by the client and the client will be asked to choose the most creative solution idea to be further developed. The facilitator will work with the client outside the classroom without the student resource group being present (see Fig. 7)

3. The third CPS session - Develop

The facilitator will meet the client to initiate the Develop session. The goal statement (“I wish...”) and key data from the interview, the challenge statement chosen from the Clarify session (“How to...”), and

the idea chosen from the Ideate session (“What I see myself doing is...”) will be explained and presented to the client. The PPCo/POInt evaluation will be applied to develop the idea (See Fig. 8). The client will be asked to think of Pluses and Potentials first. Both are positive immediate and future outcomes by adopting the new idea to solve the given problem. Then, any concerns about the idea chosen are asked to the client. When the client addresses concerns, ask to phrase them beginning with “How to...”. With POInt, the client will be asked to look at the new idea’s Pluses and Opportunities starting with “It might...” first and then address Issues using phrases like “how to...” or “Hight might..” addressing any concerns. The meeting with the client will end with 3-5 concerns generated as related to the solution idea.

A third CPS session to develop the solution idea is organized with the student resource groups. Each resource group will work with one of the concerns identified by the client. Again, this Develop session begins with a warming-up activity. The facilitator debriefs the resource group students over the previous CPS sessions as well as the meeting with the client. Each resource group will work on a different concern to generate ideas to overcome the concern. For each concern, the resource group is asked to generate a minimum of 20 ideas to overcome. Overcoming idea should be phrased in an action form using a verb (see

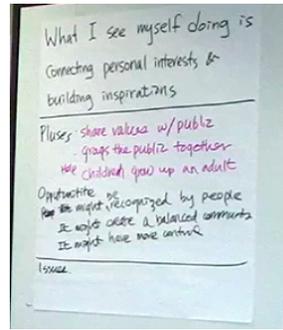


<Fig. 7> Ideate session with the client
Photographed by the author. (March 11, 2018).

What I see myself doing is..



- Pluses
- Potentials
 - I might
- Concerns
 - How to
 - How might
 - In what ways might
 - What might be all the way



<Fig. 8> PPCo / POInt evaluation

Overcome Issues/Concerns

- Issues: "How to..."
- In order to...
- I will

- Go for 12 ideas for each concern

<Fig. 9> CPS - Develop session

Fig. 9).

After working on the concerns, the facilitator will ask the resource group to generate action ideas to the original solution idea written in "What I see myself doing is...". The goal of this session is to have a minimum of 30 actions to make the solution idea to be fully developed for implementation.

4. The fourth CPS session - Implement

The client will be invited to class for the Implement session. The facilitator will post all posters generated during the previous CPS sessions on the wall. After a brief ice-breaking activity (simple diverging activity), the client is asked to choose the action ideas they like to adopt to solve the problem. The Implement Worksheet (Miller et al., 2011b; see Fig. 10) can be used as an action plan for the client.

IV. Reflection on Developing a Modified CPS Process for a Fashion Merchandising Course

Changes in the fashion business are essential and creativity is always highly valued as one of the core competences required for fashion professions (Karpova, Marcketti, & Kamm, 2013). They suggested the following strategies for developing creativity among fashion students including (1) practicing creative thinking strategies; (2) formal training; (3) diverse experiences and exposure to the world; and (4) creating a safe, yet challenging environment. However, most previous educational attempts to improve students' creativity in the field of the fashion education have only dealt with one side of creativity, divergent thinking (Oh, 2017). Implementing a CPS process into the fashion curriculum benefits students to understand the multifaceted nature of creative problem solving involving various thinking skills as well as the famous divergent and divergent thinking (see Puccio, Murdock, & Mance, 2005). To improve students' creativity, applying CPS as a teaching tool seems very promising. However, due to the classroom settings and the number students enrolled in a lecture class in the department, a modified version of CPS process needs to be developed.

Working on real business problems may motivate students to be more engaged into creative process and help them better understand the value of CPS. More importantly, training on CPS has been proved to have various educational implications including improvement on student's creativity (Treffinger, 1995). Any projects collaborating with local businesses or com-

Implement Worksheet

My action plan
Read over your solution statement on the "develop" page.

Consider:
What steps might help put my breakthrough into action?
What resources might help (people, materials, money, location, etc.)
What obstacles can I anticipate?
How might I test the solution?

Incorporate these ideas into the to-do list below.
Write who will do what by when.
Indicate who needs to know when the job is complete.

To do...	Who	By when?	Report to...
Short term			
1.			
2.			
3.			
Mid term			
1.			
2.			
3.			
Long term			
1.			
2.			

In the next 24 hours, I will...

Take responsibility for your thinking. Be the breakthrough you want to create!

<Fig. 10> The implement worksheet
From Miller et al. (2011b). p. 75

munities have been positively received to have high impact on student learning and development (Celio, Durlak, & Dymnicki, 2011).

This modified CPS manual for fashion marketing and merchandising courses provides practical guidelines to work with local fashion businesses while providing students with learning opportunities. Students taking this course will be trained to be the resource group heavily on diverging thinking. Since CPS sessions take place in a classroom setting, the availability and presence of the client for the entire CPS process is not possible. Therefore, the client will be asked to be present for the first CPS process (Clarify) to formulate the challenge statement and to attend the last Implement session to choose the action ideas to be adopted. Students will generate various challenge

statement as questions in the Clarify, diverse and creative ideas for the Ideate, various actions to take for the Develop and Implement steps. Students would be able to realize how creativity should be differently applied for a different purpose as well as to learn practical techniques of applying their creativity to solve a real business problem using the FourSight Creative Problem Solving Model. This modified in-class CPS session would also benefit local businesses to find creative solutions to their problems at hand especially generated by future fashion professionals.

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