

Development of a Creativity Framework for Filipino In-service and Pre-service Professionals

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Abstract

The study explored and documented creative problem solving output of 12 Filipino in-service professionals, expert practitioners in the fields of Hospitality and Tourism, Engineering and Architecture, and Information Technology from one university and 191 Filipino graduating students, pre-service professionals proficient in the same fields from three universities in Baguio City, at the Cordillera Administrative Region of the Philippines. Research questions aimed to define creativity, determine the categories of creative problem solving output of the two sets of respondents based on the factors that motivated such. Qualitative data from the validated questionnaire and the focus group discussion were processed with thematic analysis through memoing and open axial coding borrowed from the Grounded Theory approach. Frequency count and percentage were used to treat the answers about daily creative problem solving activities. Quantitative data gathered with the Intrinsic Motivation Inventory by Ryan and Deci was processed using the one-way repeated measure analysis of variance (ANOVA) and t-test. Responses revealed the operational definition of creativity within acceptable parameters. Respondents manifested little-c, mini-c and Pro-c creative outcomes that had potential to become the next level category in all instances shown in a framework. Pre-service professionals scored the highest percentage on literary arts as little-c. Respondents were intrinsically motivated by desire for satisfaction and the subscale of value and usefulness. Extrinsic motivation was found through enabling policies and, supportive family members, workmates and schoolmates. No significant differences were found in the level of intrinsic motivation according to gender, course, or school graduated from.

Keywords: creativity, professionals, motivation

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Introduction

Documenting creativity begins in the early years especially in early education art activities that could lead to pursuing a degree in Fine Arts, Visual Communication. Art activities are used as strategies for teaching students especially those with special needs particularly with mental retardation to provide an alternative form of communication and ease anxiety. A visual art production program could lead to a source of income when guided and mentored by professionals in graphic design, printing and marketing which was the purpose of an *Art Workshop for Persons with Mental Retardation* (Bautista-Rodas, 2006). The program aimed to produce marketable products using the artwork of the students with special needs as a source of income. Success relied heavily on the professional mentors for mass production and marketing. The whole process required creative people, creative potential, creative skills, creative processes, creative products and a creative society supportive of the whole endeavor.

This study documents creativity in another scenario. Research literature establishes that creativity exists not only in the arts. Professional creativity exists in all domains and fields of expertise. Creative professionals are described as those who engage in creative problem solving, are able to think on their own, troubleshoot to find problems and devise many possible solutions, but more importantly decide on the best possible solution for circumstances at hand (Florida, 2002). Creative solutions need to be acceptable to the relevant consumers in society in order to be useful.

Unfortunately, “the Philippines does not have a detailed and accurate baseline for the Creative Industries” (p.13, Fleming, 2017). The report shows data only on visual, performing and literary cultural arts with copyrights or patents but does not account for creative outcomes of professionals in other fields or professionals who work free lance. There is much hype on creative economies relevant to the performance of nations and yet there is no substantial data.

“All solution making and construction require creative thinking. Yet, almost no schools teach for creativity or train teachers to teach for creativity” (p.1, Kaplan, 2019). However, the study on the *Development of a Creativity Framework for Filipino Students and Professionals* (Rodas, 2017) shows that schools in the Philippines do teach creativity and teachers have it in them to do the task.

People in the learning stream, in schools, are often perceived as just students. Arguably, students on their last semester of their college courses have competently achieved enough to be granted on-the job-training programs and be identified as pre-service professionals ready to enter the workforce, ready to become professionals. After all, training programs prepare them to become professionals, ready for industries, required to perform competently and manifest creative outcomes on industry sites expected from actual professionals in their field of expertise.

Creative Thinking Skills

In 1927, creative thinking skills were investigated by Wallas establishing phases in a creative process (Kristensen, 2004) that are preparation, incubation, insight, elaboration and evaluation. Stages of the thinking process and validation of thought

are encounter, preparation, concentration, incubation, illumination, verification and persuasion (Hull, 2007). These are described chronologically as, identifying the problem, gathering information, concentrating on problem solving, gathering all possible solutions, choosing the best solution, validating the chosen solution, and presenting the solution for acceptance. Wallas' stages of the creative thinking process have characteristics that include fluency, flexibility, originality, and elaboration (Yanti, Koestoro, Sutiarso, 2018) that are parts of the paper-pencil Torrance Test for Creative Thinking (TTCT) wherein abstractness of title and resistance to premature closure were added (Hébert, Crammond, and Neumeister, 2002). According to Sternberg (2006) the TTCT is the most widely used creative thinking assessment tool commonly taken by students. In 1950 Guilford called for further research stating creativity as having many interpretations, expounding on the creative thinking process as divergent, convergent, transformative and evaluative (Basadur, M., Runco, M., & Vega, L., 2000). In 1953, Osborne advanced divergent thinking into a brainstorming process (Hauksdottir, F. B., 2011) and with Parnes (1961) used brainstorming as the main activity for the Creative Problem Solving (CPS) Method. Stein (1953 in Runco 2004 and 2007) argued that creative potential and the internal and external frames of reference must be considered in eminent creativity which he identified as the Larger C.

Aspects/Facets of Creativity

In 1961, Rhodes established the four aspects or facets of creativity (Kozbelt, Beghetto and Runco, 2010). These are the creative person, the creative process, the creative product and the creative press. While the person and the product are identifiable, the creative process and creative press were examined. Researchers scrutinized the creative process in terms of creative thinking, creative personality, and motivation to manifest creative outcomes that are internal to the person. The fourth facet, the creative press was explained as the society that exerted social pressure on the acceptability of creative products requiring expert judges in a domain or societies in the world to deem a product indeed creative. In 1990 Simonton added persuasion as the ability to influence societies to deem a product creative and in 2004, Runco added creative potential making the aspects or facets of creativity six (Kozbelt, Beghetto & Runco, 2010).

Creative Press

The external frame of reference of Stein and the creative press of Rhodes refer to the external environment of the person, that is part of the Componential Model of Creativity (Amabile, 2012) as the social environment working in confluence with three other components : expertise, motivation and creative thinking skills to manifest creative products. The creative press consists of a group of experts in the domain utilizing the Consensual Assessment Technique (CAT) (Baer & McKool, 2009), or the community or global society that informally evaluates creative ideas, products, processes or systems as new and useful.

Creative Product

While Stein referred to eminent creative products as the Larger C, Kaufman and Beghetto (2009) referred to eminent creative manifestations as BigC in the Four C

Model of Creativity. The three other categories in the Four C Model are little-c, mini-c and Pro-c. Richards (1990 in Richards, 2007) described little-c creative outcomes as personal creative activities such as using leftovers to create a dish or combining colors and separates in dressing which the average person performs daily. Kaufman and Beghetto (2009) argued for mini-c category as creativity in the learning process by students or people still learning a creative activity. Pro-c creative outcomes were produced by professional level creators with about ten years of preparation including formal training in a domain of expertise and some specific achievement equivalent to manifestations through the expertise acquisition approach (Bloom,1985; Hayes,1989; Martindale, 1990; Gardner, 1993; Ericsson, 1996; Sternberg, 1999; Simonton, 2000; Kaufman & Kaufman, 2007; in Kaufman & Beghetto, 2009).

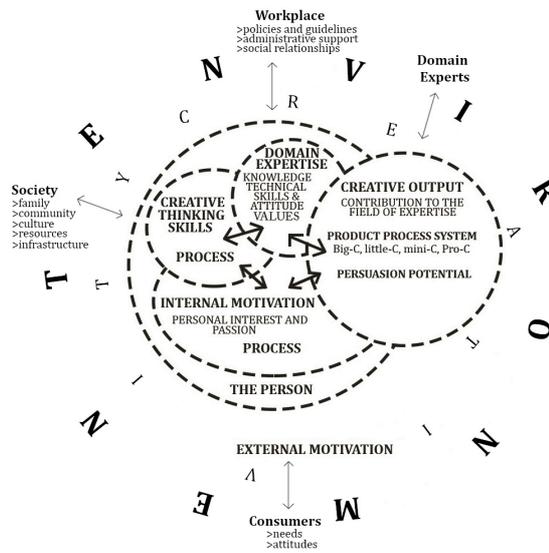


Figure 1: Creative Processes to Creative Outcomes

Creative output are creative outcomes. The schema of creative processes to creative outcomes (Figure 1) gleaned from related literature was utilized into a conceptual framework showing the person located in the social environment influenced by external and internal processes. External motivation could be people, members of society, family, domain experts, social relationships, culture, resources, infrastructure, workplace policies or consumers needs and attitudes. Internal motivation could be personal interests and passion, extent of creative thinking skills or domain expertise that include knowledge, technical skills experiences, attitudes and values that meld to manifest potential creative output or outcomes that could be ideas, products, processes or systems and ability to persuade society on the usefulness of these creative outcomes (Rodas, 2017). The term “creative outcomes” is used to replace “creative products” to establish that there are different kinds of creative outcomes. Products are one kind of creative outcome, the other three being ideas, processes and systems.

“Can creativity be taught? Can it become, for each of us, an endless renewable resource that can be tapped into at any time?” (Lambert, 2017, p.3). The study explored and documented creativity through the lens of the Componential Model (Amabile, 2012) and the Four C Model (Kaufman and Beghetto, 2009).

Respondents were 12 Filipino in-service professionals from one university in the fields of Hospitality and Tourism, Engineering and Architecture, and Information Technology and 191 Filipino pre-service professionals, graduating students in on-the-job training programs in the same fields from three universities in Baguio City, at the Cordillera Administrative Region of the Philippines. Research questions aimed to gather the operational definition of creativity, determine the categories of creative output of the two sets of respondents and the factors that motivated such. Data was processed with thematic analysis through memoing and open axial coding borrowed from the Grounded Theory approach on the validated questionnaire and the conduct of a focus group discussion. Frequency count and percentage were used to treat the answers of the pre-service professionals about daily creative activities. Data gathered with the Intrinsic Motivation Inventory by Ryan and Deci was processed using the one-way repeated measure analysis of variance (ANOVA) and t-test.

Conclusion

Expertise and Creative Thinking Skills

Five Levels of Expertise established by Dreyfus (in Lester, 2005) show level 1 as the lowest and 5 as the highest. The in-service teaching professionals also practitioners in their fields of Hospitality and Tourism, Architecture and Engineering and Information Technology held university academic management positions as Deans, Program Chairs and Subject Heads had the highest expertise Level 5. The pre-service professionals evaluated by experts as proficient Level 4 (Rodas, 2017). Both level 5 experts and level 4 proficient treat knowledge in context, recognize relevance, and assess context holistically. They however, differ in other areas. While experts have intuitive decision making skills, authoritative knowledge and understanding across the area of practice, achieve standards excellently with ease, create interpretations and take responsibility beyond standards, the proficient having less experience, make decisions on a rational level, deeply understand the discipline but without authority, achieve standards routinely and take responsibility only for their own work (Dreyfus, 1980 in Lester, 2005). Creative thinking skills are evident in their project based creative problem solving (CPS) activities (Rodas, 2017).

Defining Creativity

Collated responses of expert in-service professionals define creativity as the process and the ability to use skills, imagination, and thinking to produce new, useful, and innovative products or work that satisfies the needs of people.

Categories of Creative Outcomes

In-service expert professionals produced creative outcomes in three categories little-c, mini-c and Pro-c in both their personal and professional lives. Little-c and mini-c creative outcomes produced at home had the quality of Pro-c when the creative outcome was related to the creator's field of expertise such as the home dishes served by the Chef, the experimental drinks done by the professional Barista, the home gardening activities done by the architect and the engineer and the experimental hydroponic system by the architect. Pro-c creative ideas, products, processes and systems done professionally had potential to become BigC when subjected to

patenting, copyrighting, marketing for global consumption or proven useful to many in society and deemed so by the public.

Pre-service professionals (PSPs) produced creative outcomes in two categories little-c and mini-c in both their personal lives and on-the-job training programs. Little-c creative outcomes in literary arts had the highest percentage and frequency, while visual arts had the lowest (Rodas, 2017). PSPs produced creative outcomes in the mini-c category required in on-the-job training programs such as ideas, products, systems, and applications. These creative outcomes were categorized mini-c that had potential but could not be deemed Pro-c simply because PSP creators were still in the final semester of their learning process and were not yet employed as professionals in the field. Potential to be categorized BigC was evident but required exposure for further evaluation by experts and usefulness to a larger audience.

Creative Outcomes Continuum

The emergent framework initially identified as Creative Production and Potential in a Seven C Model (Rodas, 2017) showed that potential to each category was evident such that potential mini-c from little-c, potential Pro-c from mini-c and potential BigC from mini-c and Pro-c were to be added to the Four-C Model of Kaufman and Beghetto (2009). However, mini-c category to become BigC requires the consensual assessment of experts in the domain to validate Pro-c quality work before the creative outcome can be offered for public consumption and effectively used before becoming BigC category. Further analysis evolved the framework into the Creative Outcomes Continuum (Figure 2).

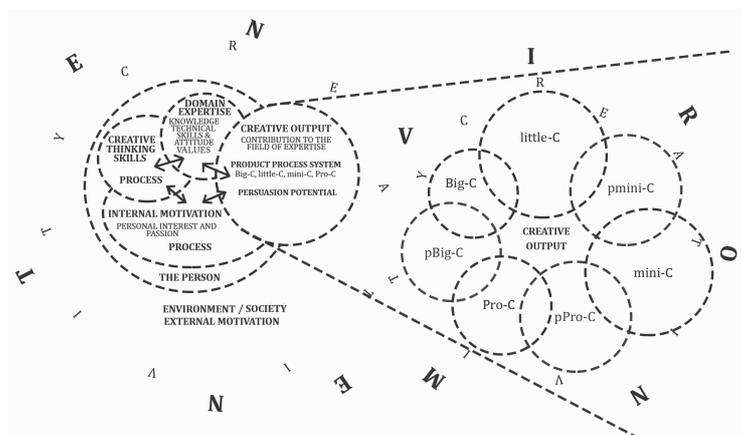


Figure 2: Creative Outcomes Continuum

Motivation

Intrinsic motivation of in-service expert professionals were attributed to their personal inner desire for satisfaction, while intrinsic motivation for pre-service professionals was evident in the highest score of the sub-scale on value/usefulness in the Intrinsic Motivation Inventory. Extrinsic motivation of both sets of respondents came from enabling policies and supportive families, peers, colleagues and superiors. No significant differences were found in the level of intrinsic motivation of the pre-service professionals in performing creative problem-solving tasks according to

gender, course, or school graduated from (Rodas, 2017).

Recommendations

Increase opportunities in education to demonstrate creative problem solving output of ideas, products, processes and systems to develop creative problem solving skills into a life skill. Increase value and usefulness to creators to increase production of creative outcomes. Build expertise of students by tracking creative outcomes through levels of education. Open access to opportunities for evaluation and exposure of creative outcomes through consensual assessment, patenting, copyrighting and marketing to increase the chances of being useful to global society.

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