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**Department of Guidance and Counselling**  
**University of Ibadan**

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## Scope and Editorial Policies

**Nigerian Journal of Applied Psychology** is primarily meant to publish reports which can make professional as well as laymen utilize psychological principles in making the human organism more mentally and physically healthy. The journal is meant to make it possible for many more people to utilize psychological principles in their day-to-day activities. One of the aims of the journal is therefore to report articles which when read by people may increase their self-understanding, awareness, problem-solving capacities, creativity and improved adaptive and coping behaviour strategies.

The Journal is an Applied Psychology Journal par excellence. The journal publishes reports which may have applications to individuals in the family, educational contexts, health delivery systems, criminal justice systems. Articles which can analyse and help to solve many problems of society, are also welcome.

The editorial policy of the journal will use the following order of publication preference.

1. Reports that suggest practical ways of eliminating, reducing or managing certain socially, undesirable behaviour patterns.
2. Programmes that can be self-administered to solve psychological and other behavioural problems.
3. Review articles that expose the various strategies of managing maladaptive behaviours.
4. Theoretical or speculative reports for heuristic consideration in problem solving.
5. Book reviews especially review of books that contain some do-it-yourself psychology.

**Nigerian Journal of Applied Psychology** is considered to include psychology which may be utilized in the following ways for alleviating human problems:

- |                            |                           |
|----------------------------|---------------------------|
| — By an individual         | — Industry                |
| — Education                | — Organizational settings |
| — Health delivery systems  | — Agriculture             |
| — Counselling              | — Hotel organization      |
| — Criminal justice systems | — Parenting               |
| —                          | — Family life education   |
| — Town and urban planning  | — Prisons etc.            |

A paper will only be considered for publication in the Journal if it meets the following criteria:

1. Adequate Presentation Quality
2. Adequate Psychological value especially regarding application in solving current psychological problems.
3. Adequate social importance
4. Theoretical significance especially in clinical-practicum areas
5. Contribution to the profession.

**General Information and Manuscript Preparation**  
**Nigerian Journal of Applied Psychology will be published in June.**

**Manuscript Preparation**

1. Each manuscript should contain a title, Name and address of the author including his institutional affiliation, abstract, introduction, and the body of the paper.
2. Each page should be numbered consecutively in the upper right hand corner beginning with the Title page.
3. Papers should not exceed 20 pages including references.

**Manuscripts**

1. The title page should contain a concise but informative statement which should not be more than 15 words.
2. Below the Title should be written the author's names in order, first name, middle name and family name last with the highest degrees, the department of the author, and his/her institutional affiliation.
3. Abstract – The abstract of the manuscript should not be more than 150 words. It should be on page 2 of the manuscript. Abstract should state concisely the purpose(s) of the paper, basic segments and general principles to be put across to readers.
4. If the paper is the report of a study, it should include background, methodology, analyses and results.
  - (a) Background includes introduction, and review of literature central to the study.
  - (b) Methodology should include concise explanation of design, sample and sampling procedure, instruments and their psychometric characteristics plus a well-explained systematics of the procedures.
  - (c) Results should be presented in form of tables to which reference is made in brief descriptions.
5. References should be written in alphabetical orders. The reference list should include only the cited works within the body of the paper. Reference should follow the APA system.

The format to be followed in writing the reference is as below:

  - (a) Family name of the author
  - (b) The initials
  - (c) The year of Publication
  - (d) the title of the paper
  - (e) The journal or book in which paper is published.
  - (f) If a journal, the volume and pages.
  - (g) If a book, the city and the publisher
6. Manuscript Submission

All manuscripts should be submitted to the Editor-in-Chief,  
Professor Julius O. Akinboye  
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Nigeria.

## Editorial Statement

The 21st century has found that most ventures are facing tremendous competitive pressures. In all businesses and human transactions in life and workplace, the struggle to maintain market positions is negatively affecting the ability to grow as more resources are focused on short-term rather than long-term issues. Restructuring, re-engineering, right sizing, mergers, and acquisitions are no more enough to improve any business bottom line. Business leaders are predicting that the single most critical factor for business success is innovation. Innovation describes the transformation of a new idea into a product, service, or outcome that is delivered to the market place within a window of opportunity and that meets the market's quality, performance and cost expectations plus the individual, group or organization's profit requirements.

The papers in the present volume of the journal are designed to generate lots of ideas to the readers. There are thirteen solid research-based papers dealing with analysis of sectoral differentials in collective bargaining, information-seeking, predictors of productivity, interpersonal relationships of secondary school students, community-based interventions to prevent child abuse, creative approach to preventing "419", attitude of secondary school students, efficacy of creativity strategies, factors affecting academic achievement, situational factors in work behaviours, cultism, efficacy of academic values clarification and the development and validation of financial stress questionnaire. These papers certainly generate lots of ideas that can help individuals, groups, organizations, communities and the nations become prosperous. Idea production is only half of the equation. Production of research-based ideas are very important but not enough. The Nigerian Journal of Applied Psychology courageously insists that the assembled ideas must be transformed into saleable, commercializable and valued form through the process of intentional change called innovation. This is done to seriously amplify the name of the journal.

The first article in this volume, Creativity and Innovation in Business is designed to introduce readers to the various ways in which ideas from the papers in this volume or any other source

could be transformed into profitable forms. This will significantly increase the bottom line in the individual, group and organizations. This could be done in ten simple steps.

- Accept the challenge of change in modern life.
- Develop viable short-term and long-term vision, mission and values.
- Develop effective leadership programme.
- Develop a culture that passionately embraces innovation.
- Operate strategic alignment of innovation initiatives with business vision, mission and values.
- Focus on the customer and have an eye toward market when assessing and undertaking opportunities for innovation.
- Accept risk and interpret inevitable mistakes and failures as landmarks toward success.
- Emphasize and give tangible support for creativity, innovation, exploratory thinking, idea generation and experimentation.
- Evolve solid and powerful interpersonal relationships and internal teamwork, using the skills of emotional intelligence, coherent communication and a climate of mutual support and commitment devoid of emotional viruses.
- Effectively utilize cross-functional, cross-discipline communication, collaboration and teaming within the organization and with external partners and you will certainly see your bottom lines rise.

**Julius Olarinde Akinboye**

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# Differential Effectiveness of Two Creativity Techniques in Enhancing Creativity Motivation of Some Nigerian Adolescent Prisoners

By

**Animasahun, Rotimi Adebayo**

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## **Abstract**

This study investigated the differential effectiveness of Six Thinking Hats and Akinboye's Practical Creativity At Work (APCAW) techniques in enhancing the creativity motivation of some Nigerian adolescent prisoners. The study sample was 135 convicted adolescent prisoners whose ages ranged from 18-21 with a mean of 19.5 randomly selected from Agodi Prison, Ibadan, Oyo State and Ilesa Prison, Osun State. The subjects were randomly assigned to the two intervention conditions and control group. The treatment lasted for six weeks of twelve sessions. A 3 x 3 experimental design was adopted. The validated instruments namely: the Creativity Motivation Scale in Ibadan Creativity Assessment Scale (ICAS) and Self Concept Scale in the Adolescent Personal Data Inventory (APDI) were used. The results indicated that subjects exposed to treatments performed significantly better than the control group on measure of creativity motivation of the subjects. On differential effectiveness basis, however, APCAW technique took the lead. On the basis of the finding, it was suggested that Nigerian Prisoners should undergo training in creativity so as to be adequately equipped to cope with life after incarceration.

## **Introduction**

The necessity for creativity in our day-to-day activities cannot be over-emphasized. This is because people of all ages are constantly confronted with problems and situations that require decisions to improve the human condition. However, despite all efforts made at solving the various problems, futility has always been the result because people tend to solve or cope with the modern challenges using their current repertoire of knowledge and skills. Hence, the societal problems become more aggravated and complicated.

A critical observation of the society reveals that all efforts have been geared towards the knowledge of the existing world, and judgment to check that knowledge which only allows the society to use existing methods but does not help to design new possibilities. With this, individuals in the society cannot grow and the society cannot move forward to make a landmark achievement in the area of advancement. However, creativity involves the generation of statistically infrequent ideas or updating old ones to address the variegated challenges of life (Akinboye, 1976). Creativity has been found to be the bedrock of success of developed societies. Hirshberg (1998) opined that by nature people who are engaged with the creative process are engaged with the human process, and if one is interested in creative thinking, making a place safe for ideas, then one is making a place safe for people. Also, a British scientist, Fred Hoyle asserted as quoted by Animasahun, (2002) that "The nation that neglects creative thought today will assuredly have its nose ground into the dust tomorrow".

To develop interest in creativity, one must be properly motivated. Enhancing creativity motivation of participants is the subject of concern of this study. Creativity motivation implies the ability to accept problems as part of life, face challenges with uncompromising courage, seeing beyond one's nose. ability to look beyond the cloud, ability to discover a channel of blessing from a chaotic situation, getting excitement at breaking through obstacles, having intrinsic drives, developing positive self-image and feeling good and satisfied about oneself. This skill is worthy of enhancement in the adolescents who are the leaders of tomorrow i.e. the future of the nation.

One would wonder why creativity motivation should be enhanced in the prisoners who are already advanced in dark methods of making things happen. That is not creativity. They are only cunning, subtle or clever just like the serpent in the Bible (Gen. 3:1). Satan and its cohort are not creative because their contributions are in negative manner. Any contribution or any action, which is not positively oriented or benefited to mankind, is not creativity. Acceptable definition of creativity involves 5 basic issues.

- i) The presence or awareness of a problematic situation
- ii) Making deliberate conscious efforts to address the situation
- iii) Having sustained interest at solving the existing problem
- iv) Generation of new, unique and useful ideas to solving the problem
- v) Turning challenges of life into fruitful and beneficial outcome.

Hence, Animasahun (2002) defined creativity as a conscious cognitive processes stimulated by interest and resulting in the generation of statistically infrequent, unique, valuable and appropriate ideas useful in turning challenges of life into fruitful, beneficial and profitable outcomes.

The morale of the prisoners is already dampened, and unless stimulated, no reformatory programme can work effectively and successfully on them. They have to be motivated and rechannelled their skills towards socially and legally acceptable ends which would be profitable to them and benefitting to the society. Creativity motivation aims at achieving this.

Salami (2000) described the period of adolescence as that of considerable confusion and conflicts, problems of adjustment and difficulties in making decisions on complicated matters. Many of them often end up in committing crimes, convicted and put behind the bars. Creativity motivation training will be most suitable for the adolescent prisoners to stimulate their interest in creativity so as to escape from the old ideas which brought them behind the bars, improve on the old ideas and generate new ideas on how they would spend the rest of their lives after being discharged.

## **Review of Literature**

A number of researchers have used various creativity techniques to foster or enhance the creative performance of certain individuals.

Among these are Akinboye (1976), Basadur et-al (1982), Parnes (1984), Isaksen and Treffinger (1985), Parnes (1987), Owolabi (1988), Azzez (1991), Bolaji (1992) as well as Houtz and Frankel (1992). Some of the various techniques used include: brainstorming, direct creativity training, problem solving techniques, incubation, stimulation, synectics, value engineering strategies and imagery training. They concluded that the various creativity training treatment applied were effective in fostering the creative ability of Nigerian adolescents, thus establishing the fact that creativity can be deliberately fostered. While Akinboye (1976) found that brainstorming was better than direct creativity training and creative problem solving was the least among the trio, Parnes (1984) found incubation and stimulation as being equally effective. Owolabi's (1988) finding was similar to that of Akinboye (1976b). However, Azzez (1991) found synectics treatment technique better than brainstorming, while Bolaji (1992) found direct creativity-training technique to be better than value engineering strategy.

This study is however concerned with two recently developed techniques: The Six Thinking Hats developed by de Bono (1985), and Akinboye's Practical Creativity At Work (APCAW) developed by Akinboye (1999) which have not attracted real empirical investigations on their effectiveness in fostering creativity. Hence, the present study is considered an appropriate effort geared towards enhancing the creativity motivation of the participants in one hand, and to further enrich people's understanding of these new creativity techniques.

The Six Thinking Hats, developed by de Bono (1985), is a perception broadening technique specially designed to help people think creatively, realistically and productively by simplifying thinking so that a thinker is able to use one thinking at a time. It is a deliberate thinking technique aimed at liberating individuals and groups from the bondage of confusion created by argument as a result of doing all the thinking at a time which often lead to irrational, foolish, muddled and subjective conclusion as well as irresponsible actions. The Six Thinking Hats helps a thinker to do one thing at a time. The broad thinking hat role is broken down into six different character roles, represented by six differently coloured thinking hats namely:

the White, Red, Black, Yellow, Green and Blue hats. Each hat represents a particular behaviour thus:

The White hat indicates information or objective facts and figures.

The Red hat indicates expression of feelings, emotions or personal opinions.

The Black hat indicates expression of caution, negative assessment, and pessimism.

The Yellow hat indicates feasible proposal, positive assessment, and optimism.

The Green hat indicates fertility, productivity, and generation of new ideas.

The Blue hat indicates overview control, programming.

A thinker deliberately puts on a particular needed hat, thereby assuming the designated role of the particular hat in the thinking process. At the end of the thinking session, the thinker is able to reach a favourable conclusion leading to rational decision.

Akinboye's Practical Creativity At Work (APCAW) on the other hand, was developed by Akinboye (1999). It was borne out of a stiff opposition to the socratic idea that knowledge is all. Any knowledge, which does not include practical aspect, is an effort in futility. Akinboye (1999) pointed out that the societal problems stem from the fact that many laudable ideas, concepts and percepts are often left theoretical, thereby benefiting neither the thinker nor the society. Hence, practical demonstration of theoretical knowledge is the rationale behind practical creativity at work. The technique involves 10 steps: 5 conceptual steps and 5 action-oriented steps namely:

1. Creativity Pause - This is a deliberate pause or interruption in the smooth flow of thinking to open a new channel of ideas, pave way for more alternatives, improve an already made decision or pay deliberate attention to something at some point.
2. Awareness and Management of Barriers to Creativity - This technique teaches us to be aware that there are certain barriers or blockages to creativity such as: perceptual, emotional, psychological, cultural, environmental, intellectual, socio-economic, organizational and personal which must be consciously managed in order to be successful in life.
3. Definition of Broad Problem Areas - This step emphasizes a

- clear cut definition, tactical isolation, specification and clarification of the problem. A problem well stated is half-solved (John Dewey) as cited by Couger (1986).
4. Focus on Appropriate Domain of Operation - Focusing on appropriate issue to work upon would disallow the thinker from engaging in irrelevancies but to focus attention mainly on the issue at hand.
  5. Set Criteria of Success - Since goal-setting is motivating, this step deals with setting of the goals and objectives we expect to achieve at the end of the thinking session.
  6. Use Appropriate Creativity Techniques to Generate Opportunity Areas - There are a lot of techniques from which one can choose the appropriate ones. This study chose creativity mind-prompts (Akinboye, 1999) and interrogatories 5WS/H technique (Kipling, 1985) to generate opportunity areas.
  7. Run Creativity Sessions to Explore Opportunity Areas - Using the technique chosen in step 6, one can now engage in serious creativity sessions to seek for new ideas, new concepts and new perceptions.
  8. Harvest Actionable Ideas and New Percepts - This step involves careful collation of all points made during the creativity session.
  9. Evaluate Actionable Ideas, Concepts and Percepts for Risks, Feasibility, Fit, Resources, Fatality and Effectiveness - All the collated ideas, concepts and percepts must be subjected to an objective assessment to determine the level of risks involved; possibility or otherwise of immediate execution; relevance of the idea to the societal problem; availability of adequate financial, human and material resources; determining the fatality, as well as whether such ideas are effective or not.
  10. Sell, Commercialize, Innovate Actionable Ideas, Concepts and Percepts for Profit, Success and Value - This is the end result of the creativity session. The outcome must not be concealed but quickly communicated to the society as part of one's contribution to the development of the society. This is the innovative aspect of creativity whereby both the creative individual and the society benefit from the creative session.
- Both the Six Thinking Hats and Akinboye's Practical Creativity

AtWork (APCAW) were used as creativity techniques for enhancing the creativity motivation of the convicted adolescent prisoners. The purpose was to evaluate the differential effectiveness of the two techniques in enhancing creativity motivation of the participants.

### **Hypotheses**

1. There is no significant difference in the creativity motivation scores of the experimental subjects compared with their counterparts in the control group.
2. There is no significant difference in the creativity motivation scores of subjects treated with Six Thinking Hats and their counterparts treated with Akinboye's Practical Creativity At Work Programme.

### **Design**

The study adopted a 3 x 3 factorial design. The experimental groups and the control constituted the row and the level of self concept of participants (Low, Moderate and High) formed the column.

### **Subjects**

One hundred and thirty-five (135) randomly selected convicted adolescents from Agodi Prison Ibadan, Oyo State and Ilesa Prison, Osun State participated in the experiment. Their age ranged between 18-21, with a mean of 19.5 years. They were matched into different self-concept groups on the basis of their scores in the self concept scale of the Adolescent Personal Data Inventory (APDI), while they were finally assigned into the treatment and control groups based on balloting.

### **Instrumentation**

Two instruments were used in the study namely: Section D (Creativity Motivation Scale) of the Ibadan Creativity Assessment Scale (ICAS) developed by Akinboye (1976a), and section A (Self Concept Scale) of the Adolescent Personal Data Inventory (APDI) developed by Akinboye (1977). The creativity motivation scale has 17 items in form of simple statement to which the subject is expected to indicate



on a five point scale the extent to which he/she agrees with each statement.

Akinboye (1979) used a sample of two hundred (200) subjects for the test of validity and reliability of the scale. A high score indicates high creativity motivation ability while a score of (70) indicates a minimum acceptable creativity potential in an individual. He reported a construct validity of coefficient alpha 0.77 while test-retest reliabilities after a period of four weeks revealed  $r = 0.85$ . A convergent construct validity whereby ideative originality was correlated with Creativity Motivation revealed  $r = 0.73$ . On the other hand, the self concept scale has 30 items. It has the following psychometric properties: Factor analysis = 0.67; Index of Construct Validity = 0.62; Coefficient alpha for an internal consistency analysis = 0.75 which is an index of item homogeneity. The coefficient of test-retest reliability is ( $r = 0.80$ ,  $N. = 207$ ,  $P < 0.001$ ).

### **Procedure**

The first meeting with participants in the two prisons focused on general introduction, establishment of rapport as well as administration of the self concept test which was used to match them in the three levels of self concept after which they balloted for the two experimental groups as well as the control. The experimenter having assigned the subjects into the two experimental as well as the control groups oriented them to the necessity for creativity and what they stood to gain at the end of the programme. Subsequent upon this, the creativity motivation test was administered on the two experimental and the control groups to collect pretest scores.

The experimental group one was exposed to Six Thinking Hats programme, while the second group was treated with Akinboye's Practical Creativity At Work programme. The treatment ran concurrently in both prisons for Six weeks involving twelve sessions of 1 1/2 hours each. The control group was however not exposed to any treatment but were taught basics of creativity after the study had been concluded. Both the experimental and the control groups had the creativity motivation test administered on them as post-test.

## Method of Data Analysis

The Analysis of Covariance (ANCOVA) and t-test statistics were employed to analyze the data collected.

## Results

### Hypothesis I

It was hypothesized that there will be no significant difference in the creativity motivation scores of the treated subjects compared with their counterparts in the control group. To test this hypothesis, the creativity motivation scores of the participants exposed to treatment and the control group were subjected to statistical analysis. The results obtained are presented in Tables 1- 4.

**Table 1**

**Unadjusted X-means and Adjusted Y-means of Subjects' Creativity Scores Based on Treatment (Rows) and Self Concept levels (Columns)**

ROWS	COLUMNS								
	Improved Creativity Motivation								
Groups	Low Self Concept			Moderate Self Concept			High Self Concept		
	N	X-mean	Y-mean	N	X-mean	Y-mean	N	X-mean	Y-mean
Six Hats	21	59.57	75.44	11	61.09	72.61	14	59.71	74.11
APCAW	19	64.05	75.15	12	62.75	70.23	13	62.39	75.55
CONTROL	20	62.75	60.43	10	58.30	61.70	15	62.47	63.42

**Table 2**

**Rows and Columns of Adjusted Y-mean Compared**

ROWS	COLUMNS		
	1	2	3
1	(a) 57.44	(b) 72.61	(c) 74.11
2	(d) 75.15	(e) 70.23	(f) 75.55
3	(g) 60.43	(h) 62.70	(i) 63.42

**Table 3**

**Analysis of Covariance (ANCOVA) of Subjects' Creativity Motivation Scores based on Treatments (Rows) and Levels of Self Concept (Columns)**

Variation	Source	SS	DF	MS	F	P
Creativity Motivation	Rows	788.276	2	144.138	33.56	<0.001
	Columns	13.254	2	6.627	1.54	(NS)
	Interaction	12.834	4	3.290	0.75	(NS)
	Within	7616.037	126	4.295		

**Table 4**

**Comparison of Rows and Columns Adjusted Y means' Pooled SE Computed from Least mean Square and t-values**

Cells	N	DF	LMS	S.E	t-value	P
a vs b	32	30	3.21	0.67	4.22	<0.01
a vs c	35	33	3.21	0.62	2.15	NS
a vs d	40	38	3.21	0.57	0.51	NS
a vs e	33	31	3.21	0.65	8.01	<0.01
a vs f	34	32	3.21	0.63	0.17	NS