

Creativity Research Journal, the year 1999 in summary.

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**Creativity Research Journal,
The Year 1999 in Summary**

by

Hugh S. Carroll

A Project in Creative Studies

Buffalo State College

State University of New York

Center for Studies in Creativity

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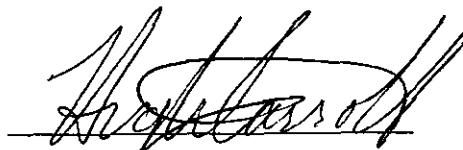
Organizing and Disseminating Knowledge about Creativity:
Themes in the 1998 Creativity Journal Literature -
Creativity Research Journal

Hugh Carroll

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

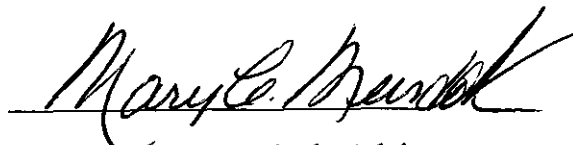
May 2000



Submitted By:
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Date of Approval:

May 15, 2000



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Abstract of Project

Organizing and Disseminating Knowledge about Creativity: Themes in the 1998 Creativity Journal Literature - *Creativity Research Journal*

This Master's project was designed to present information from the *Creativity Research Journal*, 1999. This effort spans one significant portion of the science and theory currently taking place in the field of creativity. The project is one important piece of a larger, continuous initiative to organize and synthesize the Journal literature (Bowman-Jones, 1999; Donaldson, 1999; Ezrin, 1999). Emphasis is placed on type of research prevalent in the reading; on the process of review itself, the importance of the undertaking, and the analytical schema that was first presented by Feist and Runco (1993). Writing for publication, quantitative, and qualitative assessment are also important to completing a schematic review of the literature, and are discussed in the following sections.

Data were collected from the *Creativity Research Journal* and tabulated for comparison with data from other sources of literature and journals. This project contains charts to represent the various themes that appeared in the journal for the year 1999. It also contains a discussion of key personal learnings, implications and significance of the project.

Acknowledgements

I am indebted to:

- Rhona Cadenhead
- My mom, Mary Boulet Carroll, for her assistance in proofing, her rarified talents, and her supra-rational allegiance to her sons.
- My father, Charles Carroll, for all of the incentive and support he continues to provide with such elegantly diversified subtlety; and for his math skills, his patience, and for use of his computer. Yes, I am serious about getting a 'job.'
- Dr. Mary Murdock.
- John Frederick, Ed.D, for sharing his office and what he knows, and for truly understanding what the creative environment is all about.
- Thanks Mike Fox, Doctor Puccio, Marie Mance... Student Life for tolerating my *deshabille*. Russ, Kristin, Tara, Kohler, Gonzo... All ya'll.
- Commuter Council for being *hella* cool

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Section One: The Project

Background

This project is designed to advance an initiative that has been taking place here at the Center for Studies in Creativity for some time. Donaldson (1999), Ezrin (1999) and Bowman-Jones (1999) produced a complete summary review of the journal literature for the calendar year 1998. The work was a sequel to Feist and Runco's earlier work (1993) that provided a synthesis of 23 years' worth of articles from the *Journal of Creative Behavior*. The one constant throughout these earlier initiatives and mine was the schema which underlies and guides the process of review. The schema is delineated in Section Four, Appendix A.

Project Rationale, Questions and Significance

Project Rationale

The purpose of this project was to provide a condensed view of one portion of the creativity literature. In the interest of promoting and increasing awareness of the content and themes of the creativity journals, the Center for Studies in Creativity is conducting an ongoing research project to review the journal literature for a five year period. Synthesis of the data collected and distribution of the information will present a much needed and valuable tool to professionals in the field (Ezrin, 1999).

The structured literature review technique that I have adapted for the purposes of this study has proved an effective tool for the gathering, sorting, and combining of

information (Feist & Runco, 1993). I am indebted to my predecessors for refining this model, and hope that in my own way I have contributed to its effectiveness.

Project Questions

The questions that guided this project were:

- What are the trends in content and method in the *Creativity Research Journal* for the calendar year 1999?
- What types and kinds of materials appear in the journal?
- What are the implications of this information for the development of the domain of creativity?
- How might this process model be further advanced?

Project Significance

Professional journals in any discipline are important indicators of cultural development. The field of creativity is dominated by three publications: the *Creativity Research Journal*, *Creativity and Innovation Management* and the *Journal of Creative Behavior*. This review of the 1999 *Creativity Research Journal* is part of a larger initiative (Murdock, 1998) that stems largely out of the need for such a consolidated review of the journal literature. This project is important because it provides benchmark data and an historical perspective to researchers in the field, both of which are sorely needed (Isaksen & Murdock, 1993; Raina, 1993; Stein, 1993).

The initiative itself encompasses all three of the scholarly journals in the field for each calendar year. Current authors had not been determined when this project began. However, data in this project is presented in a way that allows for maximum

compatibility with the data produced in similar future efforts. This expansion will be partially facilitated not just by the passing on of this documentation through the Creative Studies Library, but also by the passing on of data in its raw digital form so that it can be compiled into a relational database.

Section Two: The Manuscript

The purpose of this project is to increase awareness of the content and themes in creativity journals and to continue to develop a previous process model for synthesizing journal literature. Questions that guided this project were: What are the trends in content and method in the *Creativity Research Journal* for the calendar year 1999? What types and kinds of materials appear in the journal? What are the implications of this information for the development of the domain of creativity?

The 1999 *Creativity Research Journal* is one of three journals in English dedicated to the development of research and to the application of creativity. In the calendar year 1999, its 29 articles reflected a complex and diverse field. This synthesis of the literature was designed to be a vehicle for comparison of various informational resources. It was also designed to provide a thematic overview of its literary subject. It was intended to yield data reflective of trends and developments, and to be expandable over an increasingly diverse and numerous collection of sources. Feist and Runco, in their 1993 article, *Trends In The Creativity Literature: An Analysis of Research in the Journal of Creative Behavior (1967-1989)*, developed a schema for these purposes.

The Feist and Runco schema allowed for a uniform summarization of all the literature in the field. It was designed to be broad and far-reaching, and therefore applicable to a wide body of literature. The current study borrowed heavily from the design of the original analysis, and was essentially an iteration of the original

process. My intent was that it also serve to promote the initiative of synthesizing the journal literature in this manner.

This work would not have been possible were it not for my advisor, Mary Murdock, Ph.D., and my predecessors, Sondra Ezrin, M.S., M.A., Judith Donaldson, M.S., and Linda Bowman-Jones, M.S. These people at the Center for Studies in Creativity in Buffalo, NY, understood the importance of this structured approach to literature review, and adapted the schema put forward by the authors of the original 1993 study. It was their collective vision that has made this an on-going project.

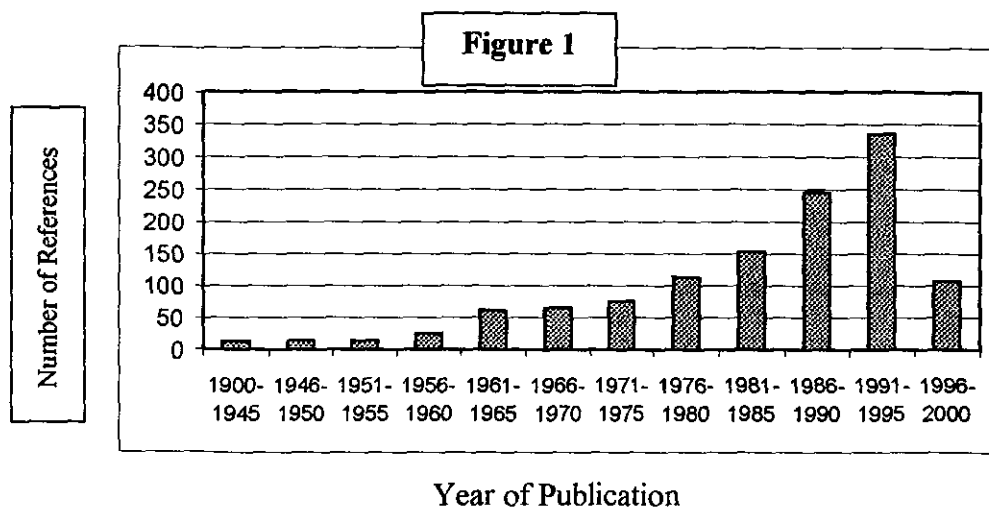
Structural Characteristics

The first of five categories of the schema, Structural Characteristics, included the total number of articles for each of the four issues, and the total number of articles for the whole volume. No book reviews were published in the year 1999. I modified the 'calendar' year because the fourth issue regularly does not come out until June the following year. It made sense to re-define the journal year for the purpose of this project as spanning the fourth quarter of the preceding year, through the third quarter for the year of study. Figure 1 represents the year's range of reference dates.

There were 29 articles for the year, averaging 7.25 per issue. The total number of references per article averaged 41.84, as compared with last year's 35.86. Last year's schematic view of the *Creativity Research Journal* also revealed 1,324 references in twenty-four articles. This year, 1,220 references were distributed over 29 articles. The high number of references indicates the depth and breadth of research in the articles. The mean date of reference within the scope of my study was 1983. The reference dates are

distributed across a broad range of dates spanning (primarily the second half of) the last century. Special content contingencies notwithstanding (e.g. historical reviews, book reviews, narrowly focused studies), this distribution is an important sign of scholarly merit, as generally, a percentage of seminal in addition to recent works is expected to illustrate depth of research. Most referenced publications date after J.P. Guilford's famous address to the American Psychological Association in 1950, and a certain percentage, (2.2%) before. There is, as expected in breadth, an increase toward the end of the century (84.26% after 1970, and 56.31% between 1985 and 2000) to include more current material. Articles in the 1999 *Creativity Research Journal* present creativity as a field solidly supported by a percentage (20.74%) of classic sources, or sources older than 25 years. There were 7.25 articles per issue on average, with a standard deviation of .95, which is relatively constant.

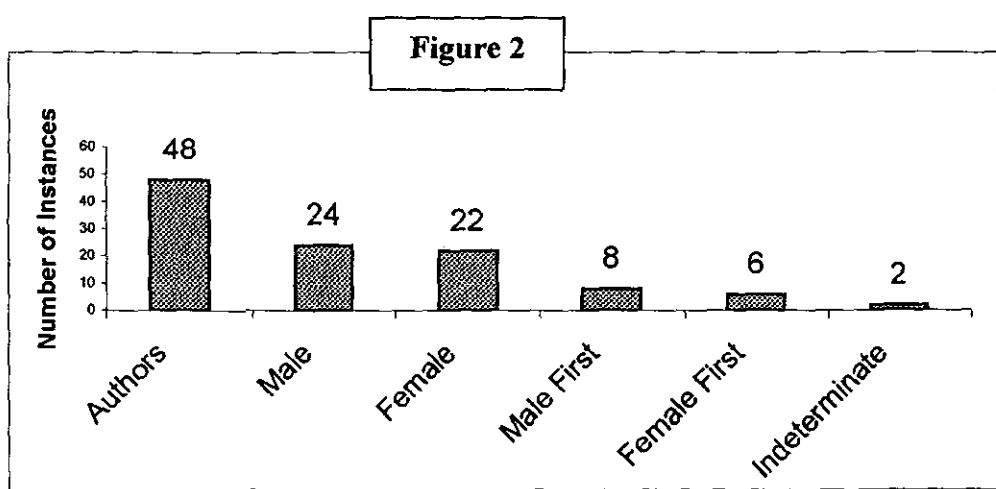
1999 *Creativity Research Journal* Reference Dates



Authorship Patterns

The second category of the schema, authorship patterns, consists of the following tallies for the year: authors, male authors, female authors, male first authors, female first authors, and number of authors whose gender could not be determined (of whom there were two.) Results for this category of the schema are represented in figure 2. Male authors outnumbered female authors moderately, comparing at 26 to 22. Female-first authors are outnumbered by male-first by six to eight, again, a moderate difference. It should be noted that first-authorship is generally considered more prestigious in contradistinction to second, third, and *et al* authorship status. It is therefore important that there is an observable trend toward equal representation of the sexes. In general the authorship patterns illustrate equal representation, balance, and general soundness of approach. There were 17 instances of single authorship, 12 articles two authors or more. Two male authors, W.H. Therival and J.A. Plucker are published in two separate articles each. This study showed a nice balance between male and female authorship. In last year's study there were slightly more male authors than female (Donaldson, 1999).

1999 Creativity Research Journal Authorship Patterns



Methods

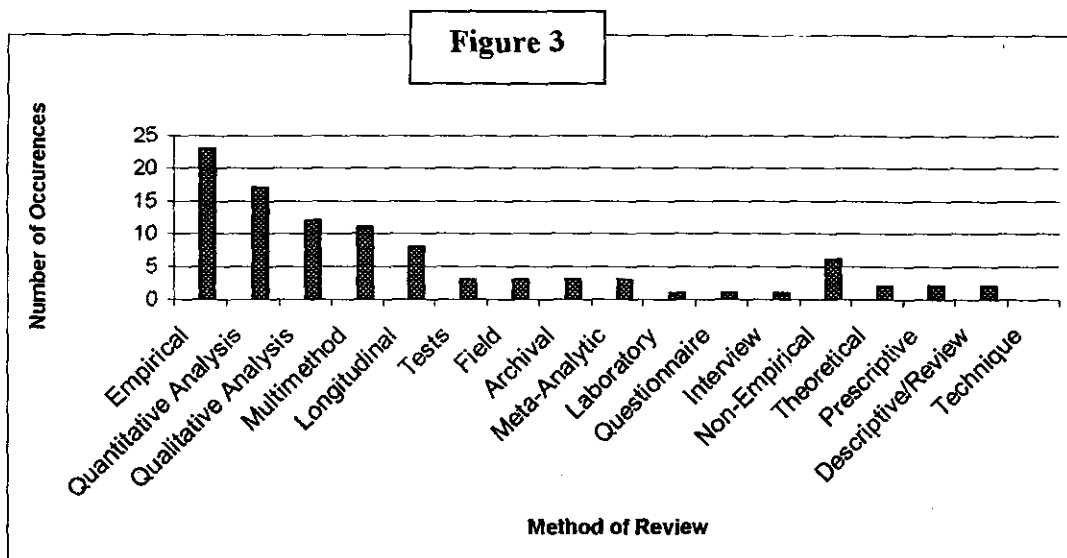
The third category of the schema, methods, is designed to identify what method of review is used to cover the subject matter of the article. Methods fall into two distinct subgroups, those that are empirical and those that are non-empirical. As shown in Figure 3, there were 23 empirical articles in contrast to 6 non-empirical articles in the *Creativity Research Journal* 1999, a pronounced difference. This is consistent with last year's results (Donaldson, 1999).

Eleven of the 23 empirical studies were multi-method and used more than one instrument of measurement e.g., interview, questionnaire, test, field experiment, and lab. The trend toward using more than one measurement technique, perhaps owing to the complexity of the subject, was reflected in the data. The multi-method approach was the most frequent, unlike the original study by Feist & Runco, in which the testing method ranked highest. This trend was so dominant that the other distinct, mutually exclusive method subcategories were almost entirely subsumed by the multi-method, 'measurement cocktail' strategy. Last year, according to Donaldson, empirical studies moderately outdistanced their non-empirical counterparts at a rate of 13 to eleven. The increased disparity between this year's number of empirical articles and non-empirical articles may be more related to the specialty issue, 12(2), which was concerned exclusively with longitudinal studies; this result will need to be examined further in the next round of analysis.

The Increase in the multi-method approach may also be related to a higher standard placed upon scientific validity supports this trend, or it may reflect a high level

of a certain type of sophistication within the field. Perhaps the high degree of empiricism in the results is a function of the proliferation of creativity theories and models over the past decades (Plucker, J.A., 1999). Since the late sixties, the field of creativity has undergone transformations that have contributed to multidisciplinary connections (Isaksen, S.G, & Treffinger, D.M., 1985). The 1999 *Creativity Research Journal's* emphasis on empirical study is unlike the original 23-year study of the *Journal of Creative Behavior*, where non-empirical articles were three times as numerous as empirical ones. Again, predictions from that study seem to be coming into their own (Feist & Runco, 1993).

1999 Creativity Research Journal Methods

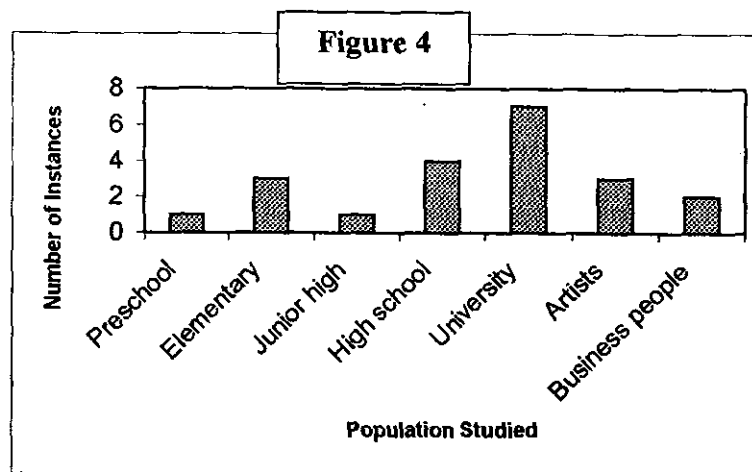


Populations Studied

The fourth category of the schema identifies what groups of individuals are studied in empirical articles. Sample populations used for the purpose of empirical research were broadly distributed in the 1999 *Creativity Research Journal*, as shown in

Figure 4. Almost a third of the sample groups were university students. Another third is split in half by artists and high school students. Nine percent are elementary school, and eighteen percent were adult professionals. The remaining populations are junior high, 'other,' and pre-school populations at four percent each. That the CRJ contains a distributed population speaks of the efforts of creativity professionals to expand their population base. In Donaldson's review (1999), University students were studied in seven articles, followed by 'Adult Other' with four, and 'Adult General Population' with two.

1999 Creativity Research Journal Populations Studied

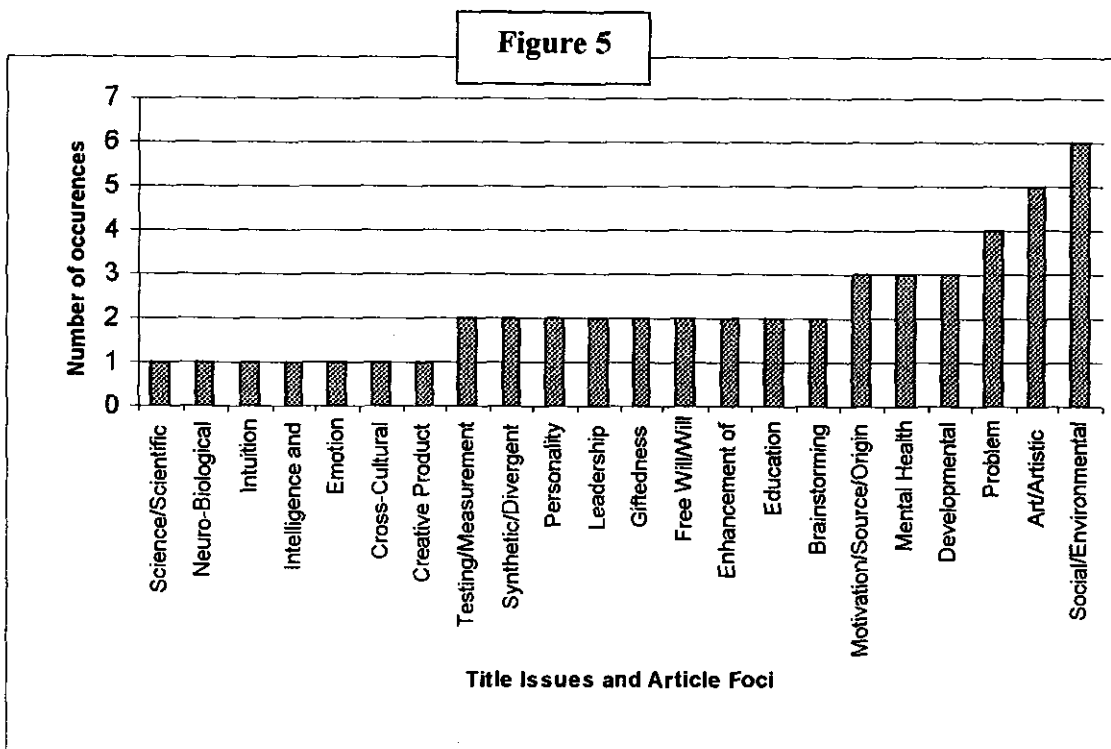


Title Issues and Article Foci

The fifth section of the schema, "Title Issues and Article Foci" refers to what the article is primarily concerned with. This category is broken up into two groups: main areas of focus that are referred to in the title, and main areas of focus within the text of the article. As shown in Figure 5, Social/Environmental Influences appear as the most highly ranking subject (six instances). Art/Artistic Concerns and Problem

Solving/Incubation were recorded five and four times respectively. The remaining articles were evenly distributed across the other categories. Almost all of the articles implicitly dealt with foci other than or in addition to what the title suggests. In 1999, 29 articles accounted for 49 occurrences of Title Issues and Article Foci. This is a repeat of last year, in which 24 articles accounted for 44 instances of Title Issues and Article Foci (Donaldson, 1999).

1999 Creativity Research Journal Title Issues and Article Foci



Results from this category indicate that articles cover a wide range of subjects, and that most articles are concerned with more than one area of content.

Strong emphasis on assessment combined with tentative formulation of theory and development of hypotheses are important criteria to the evolution of the field (Murdock, M.C., & Puccio, G.J., 1999). The strict scientific regimen of the journal requires that

scientists participating in the advancement of understanding continue to refine their approach both in terms of measurement and theory; in content as well as process. The literature reflects a multidimensional evolution in which measurement and empirical study are heavily emphasized. A consolidated view of the growing body of literature might reduce the amount of merely academic or redundant work in the field, or better yet, reveal opportunities in areas that are ripe for progress.

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Section Three: Taking it Forward

What I Have Learned (Process)

- To effectively conduct research within the parameters of a focused initiative.
- The differences and denotations of qualitative and quantitative assessment.
- Understanding of how to read and to use Journals in general.
- Greater understanding of what writing for publication means.
- Networking is of the essence, obtaining crucial information from interviewing others who have worked with or are knowledgeable about the project.
- Setting up and managing schedule for work with advisor and other parties.
- Expectation management.
- How to distribute a big piece of work over time so that it seems manageable.
- How to work alone, but with others, and how to be self-managing.
- How to cover a wide range of literature in a short time, and be focused on what matters.
- How to read empirical studies that are extremely scientific in nature.
- How to use overlap from one course to another.
- Schema design is conducive to managing expandable body of information.
- How to balance tedious and meticulous, 'data-entry' with actual thinking about the data as it compares to other data, and how to present it most effectively.

What I Have Learned (Content)

- How the journals in the field compare to one another.
- A great amount of updated information on trends of the field, research methodologies and substantive content.
- How to use what I know about the field to my extreme benefit in other CRS classes.
- Scientific and Empirical focus of the field.
- Not every published article has the same level of importance to the field.
- There is a diverse confluence of theories contributing to the field.
- Social, environmental subject matter are busy areas of study.
- Measurement tends to rely upon multiple methods rather than single ones.

- There is a preponderance of scientific method in the 1999 journal year.
- Longitudinal studies are becoming increasingly common.
- The literature of the fields is showing signs of maturity, breadth, and longevity.

Recommendations

- This project is important, and it is an on-going effort. Some structure is already provided, as it has been done before. The trail has already been marked. If you have trouble limiting your imagination and ambition to what is manageable for the purposes of an undertaking such as the Master's project at the Center, then you should seriously consider becoming a part of this initiative. You have the advantage of inheriting a structure to work with, and you will get to know a great deal about the field of creativity. This will be greatly to your benefit in other CRS coursework, especially CRS 580 Assessment.
- Start this project early.
- Make sure you have access to a computer, and a willingness to learn various (Microsoft Office) programs if you do not know them already.
- Stick to the time line.
- Set aside large chunks of time for data compilation and presentation formatting.
- Stay close to the data. Don't let it sleep for too long.
- Spend time with the journal issues, and enjoy the content.
- Have someone that you can work with, if not a 'teammate' who is also working on this initiative.
- Use web technology. Publish your data early so that you and others can refer to it online.

Section Four

Appendix A

The Schema

Schema

Feist, G.J., & Runco, M.A. (1993)

1. Structural Characteristics

- A. Total number of articles per issue and volume (excludes book reviews)
- B. Total number of references per article
- C. Dates of publication per reference

2. Authorship Patterns

- A. Total number of authors
- B. Total number of male authors
- C. Total number of female authors Results
- D. Number of male first authors Back to Introduction
- E. Number of female first authors
- F. Number where gender of author is indeterminate

3. Methods (See Appendix D.)

A. Number of Empirical Studies Per Issue

- 1. Number of laboratories Results
- 2. Number of questionnaires
- 3. Number of tests
- 4. Number of interviews
- 5. Number of field studies
- 6. Number of longitudinal studies
- 7. Number of archival studies
- 8. Number of multi-method studies
- 9. Number of meta-analytic studies
- 10. Number of quantitative studies
- 11. Number of qualitative analyses

B. Number of Non-empirical Studies Per Issue

- 1. Descriptive/Review
- 2. Prescriptive
- 3. Technique
- 4. Theoretical

4. Populations Studied (Empirical Studies Only)

- A. Preschool children (under six years old, not yet in first grade)
- B. Elementary school children (grades 1-5)
- C. Junior high school students (grades 9-12)
- D. High school students (grades 9-12)
- E. University students (students at the undergraduate or graduate level)
- F. Adults (in the general population)
- G. Artists (adults whose primary profession is art)

H. Scientists/Engineers (adults whose primary profession is in one of the science or technical fields.

I. Business people (adults whose primary profession is in business (white collar or management) or who are entrepreneurs.

5. Title Issues and Article Foci (See Appendix E)

A. Problem Solving/Incubation

B. Synthetic/Divergent thinking

C. Imagery/Visualization/Dreams Results

D. Intuition

E. Intelligence and creativity

F. Education

G. Giftedness

H. Personality

I. Developmental processes

J. Testing/Measurement

K. Business/Management

L. Gender differences

M. Cross-cultural differences

N. Enhancement of creativity

O. Social/Environmental influences of creativity

P. Motivation/Source/Origin

Q. Brainstorming

R. Humor

S. Intuition

T. Science/Scientific

U. Art/Artistic

V. Emotion

W. Leadership

X. Therapy

Y. Mental health

Z. Freewill/Will

AA. Potential

BB. Creative product

CC. Creative behavior

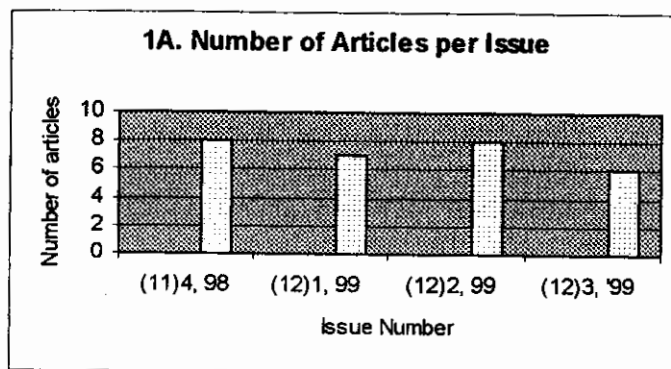
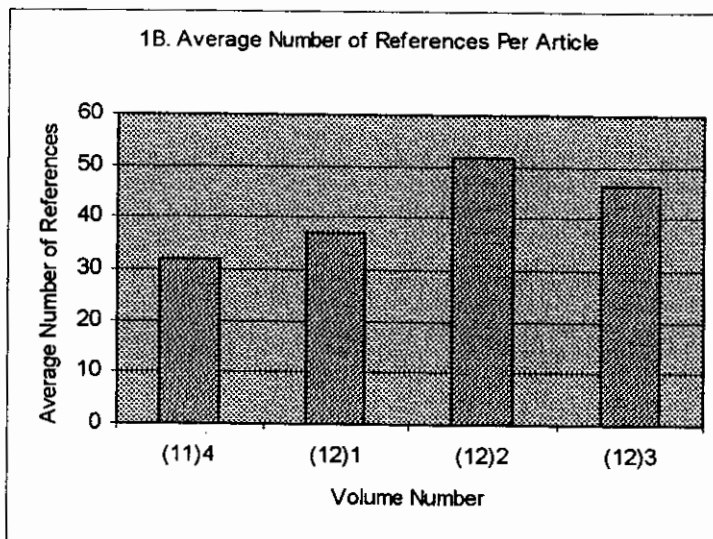
DD. Neurobiological behavior

EE. Psychic/Futuristic

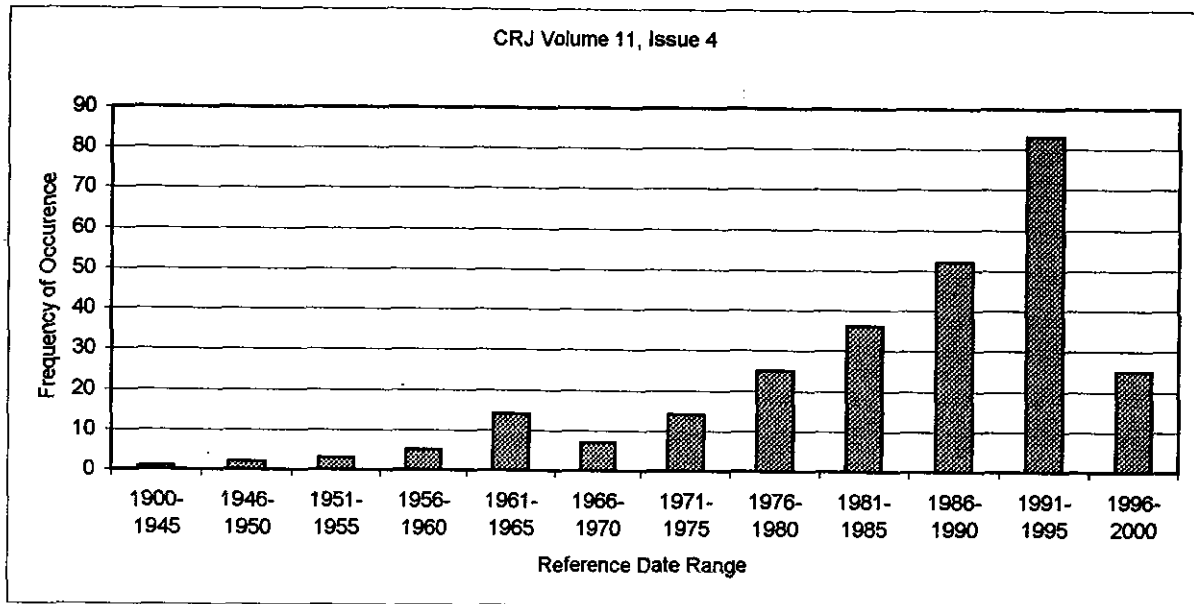
Appendix B

Charts

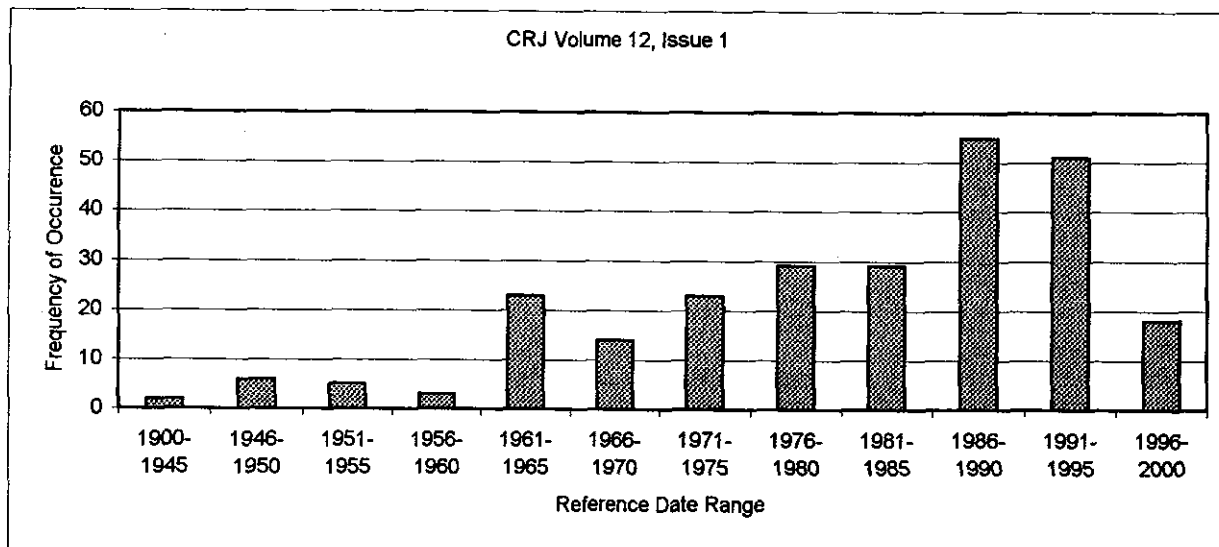
Structural Characteristics

1A: Total Number of Articles Per Issue and Volume1B: Total Number of References Per Article

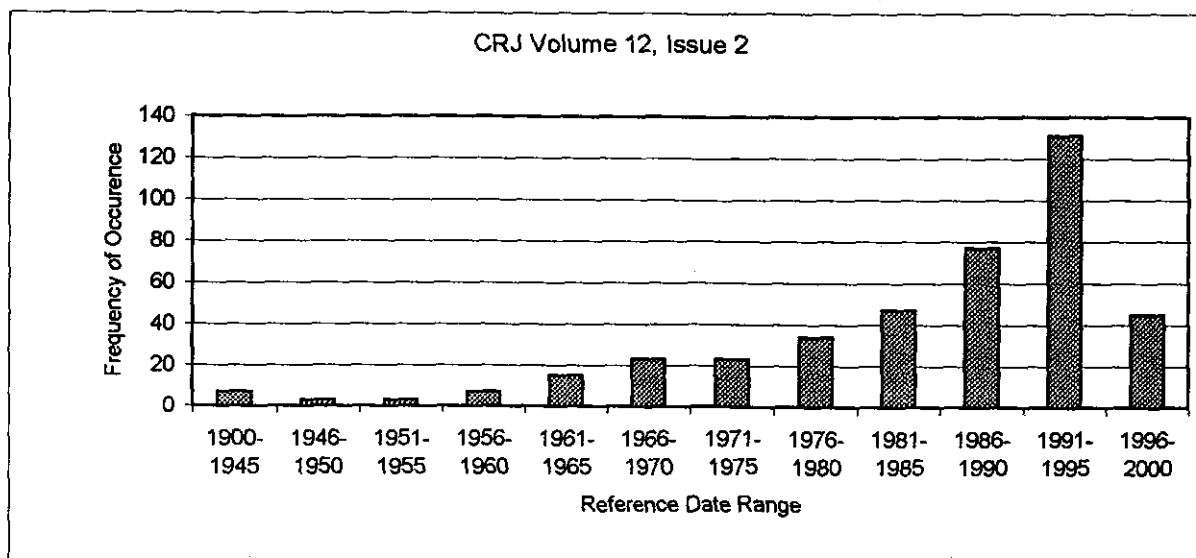
1C: Dates of Publication Per Reference Volume 11, Issue 4



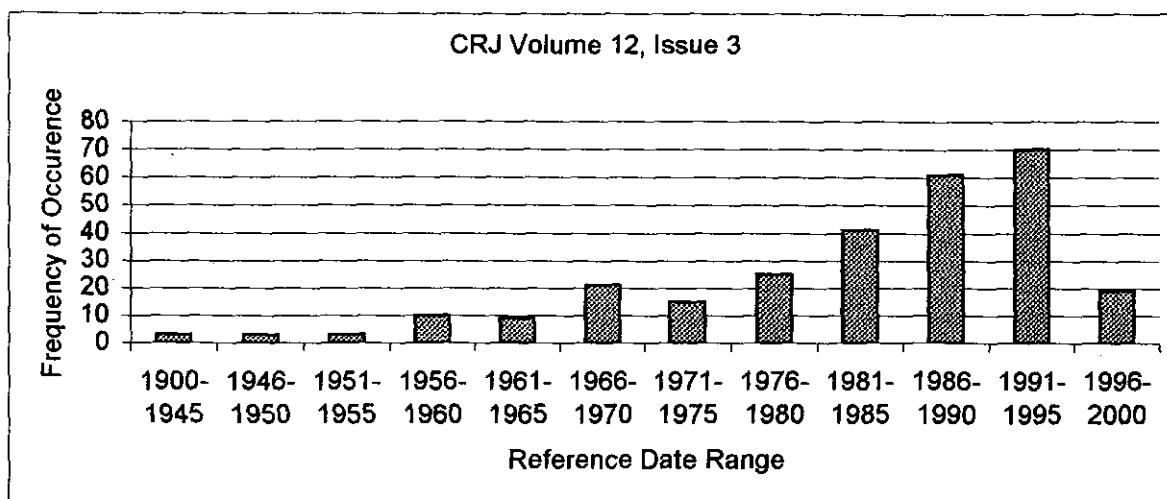
1C: Dates of Publication Per Reference Volume 12, Issue 1



1C. Dates of Publication Per Reference Volume 12, Issue 2



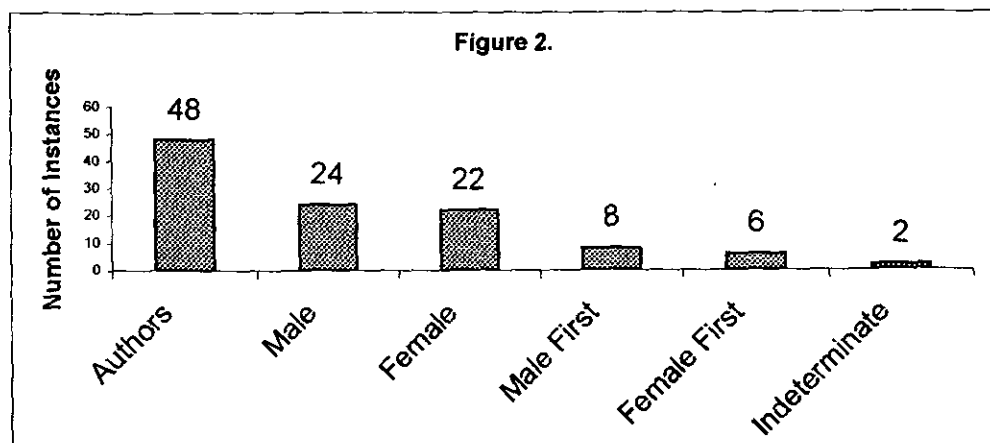
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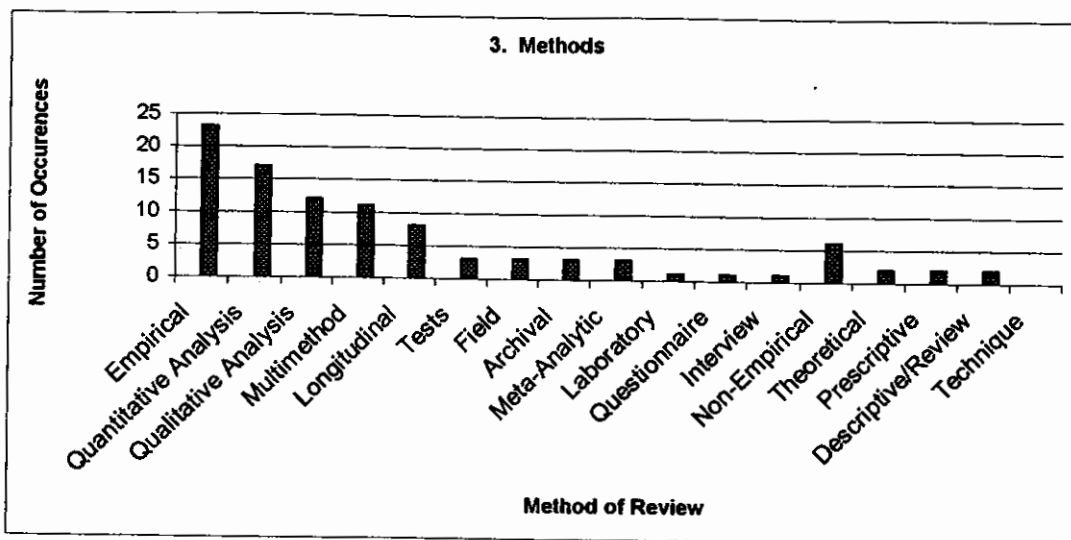


2. Authorship Patterns

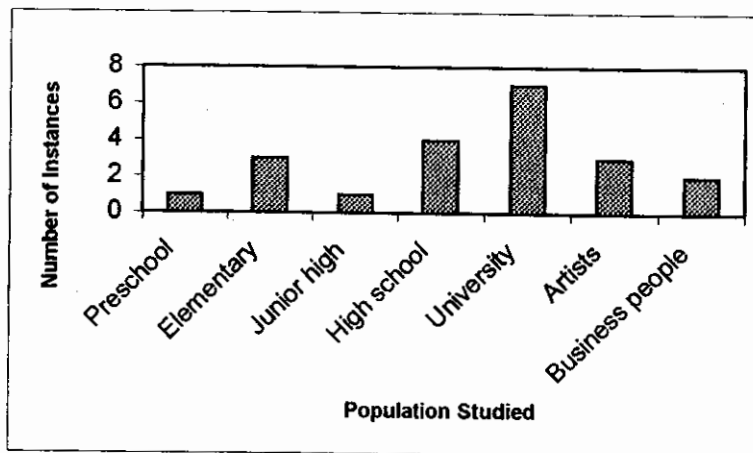
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- B. Total number of male authors
- C. Total number of female authors
- D. Number of male first authors
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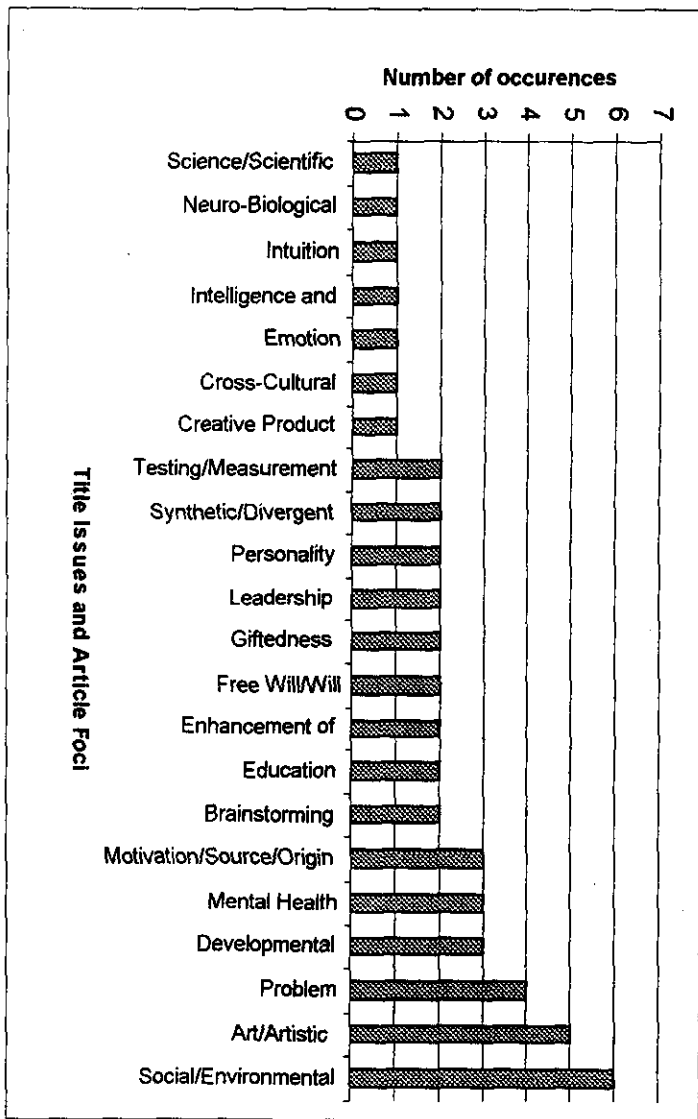
CRJ Authorship Patterns for Year 1999





4. Populations Studied





5. Title Issues and Article Foci

Appendix C

Dictionary of Terms Used to Characterize Methodology

Dictionary of Terms Used to Characterize Methodology

Empirical – Total number of articles that have either explicit or implicit methods sections (i.e., subjects, instruments, procedures).

Non-Empirical – Total number of articles that do not report original empirical data.

Quantitative Analysis – Number of empirical articles that use quantitative statistics to analyze its data (numerical stats).

Laboratories – Total number of empirical articles that use laboratory methods only.

Questionnaire – Total number of empirical articles that use questionnaire methods only.

Tests – Total number of empirical articles that use creativity test methods only.

Interviews – Number of empirical articles that use interview methods only.

Field Studies - Number of empirical articles that use field study methods only.

Longitudinal Studies – Number of empirical articles that use longitudinal data.

Archival Studies – Number of empirical articles that use archival data.

Multi-method – Number of empirical articles that use more than one of the above methods.

Meta-Analytic Studies – Number of empirical articles that report analyses of multiple articles and report statistics from each study on a particular topic.

Qualitative Analysis – Number of empirical articles that use qualitative analyses to describe its data (verbal summaries, quotes).

Non-empirical – Total number of articles that do not report original empirical data.

Descriptive/Review - Total number of non-empirical articles that describe a phenomenon or that review the literature on a particular issue.

Prescriptive – Total number of non-empirical articles that prescribe a technique, topic of study, or issue that should be studied

Technique – total number of non-empirical articles that simply describe a new technique.

Theoretical – Total number of non-empirical articles that put forth a theory explaining or interpreting a set of phenomena.

Appendix D

Title and Foci Category Definitions

Issues in Title and Focus – category definitions

Problem Solving/Incubation- Deals with any aspect of problem solving (and any of its stages) or incubation.

Synthetic/Divergent Thinking – The process of deliberately striving for quantity and variety in ideation.

Imagery/Visualization/Dreams - Deals with any aspect of imagery, visualization or dream processes.

Intuition – Deals with thought processes that involve intuitive (not conscious, verbal, or rational) elements.

Intelligence and Creativity – Deals with the relationship between intelligence (or IQ) and creativity.

Education – Deals with any aspect of teaching, training students, or testing students.

Giftedness – Deals with gifted (high IQ, high creativity) children or adults. Back to Results.

Personality – Deals with personality (individual differences) characteristics of creative people.

Developmental Processes – Deals with development across time in either children or adults.

Testing/Measurement – Deals with test construction, test taking, or measurement (methodological) issues of creativity research.

Business/Management – Deals with creativity in business, management, or training of employees.

Gender differences – Deals with differences between males and females.

Cross-cultural differences – deals with differences between cultures.

Enhancement of Creativity – Training or encouragement of creative thinking or behavior.

Social/Environmental influences of Creativity – including role models or mentors.

Motivation/Source/Origin – components of motivation.

Brainstorming – Deals with brainstorming techniques (must explicitly say, brainstorming).

Humor – Deals with the relationship between humor, wit, joking, and creativity.

Intuition – the role it plays in creativity.

Science/Scientific – Deals with scientific creativity, or the role that creativity plays in science

Art/Artistic – Deals with artistic creativity or the role of creativity in art and aesthetics.

Emotion – Its role in creativity.

Leadership – Relationship between creativity and leadership, or the reverse.

Therapy – The role it plays in Creativity

Mental Health – Deals with the relationship between mental health and creativity, includes affective behavior, psychological, and psycho-pathological theory.

Freewill/Will – and the role it plays in creativity.

Potential – concerns creative potential.

Creative Product – Deals primarily with the creation of a creative product or its evaluation.

Creative behavior – emphasis is on creative expression.

Neurobiological behavior – such as hemisphericity, lateralization, or any physiology.

Psychic/Futuristic – ESP, Clairvoyance, or aspects of futuristic thinking.

Appendix E

Raw Data

Creativity Research Journal

1A. Total # of Articles Per Issue

Year 1999*	
Volume 11, Issue 4, 1998	8 Articles
Volume 12, Issue 1, 1999	7 Articles
Volume 12, Issue 2, 1999	8 Articles
Volume 12, Issue 3, 1999	6 Articles

1B. Total # of References Per Article

Volume 11, Issue 4, 1998	
Article 1:	38 references
Article 2:	24 references
Article 3:	17 references
Article 4:	26 references
Article 5:	51 references
Article 6:	28 references
Article 7:	42 references
Article 8:	31 references

Volume 12, Issue 1, 1999	
Article 1:	19 references
Article 2:	33 references
Article 3:	59 references
Article 4:	53 references
Article 5:	38 references
Article 6:	25 references
Article 7:	31 references

Volume 12, Issue 2, 1999	
Article 1:	90 references
Article 2:	40 references
Article 3:	66 references
Article 4:	58 references
Article 5:	50 references
Article 6:	59 references
Article 7:	33 references
Article 8:	19 references

Volume 12, Issue 3, 1999	
Article 1:	58 references
Article 2:	42 references
Article 3:	14 references
Article 4:	19 references
Article 5:	26 references
Article 6:	120 references

1.C

Dates of Publication Per Reference
Volume 11, Issue 4, 1998

Article One (38 References)	Article Two (24 References)	Article Three (17 References)	Article Four (36 References)	Article Five (51 References)	Article Six (28 references)	Article Seven (42 References)	Article Eight (31 References)
1 1987	1 1989	1 1983	1 1986	1 1992	1 1986	1 1997	1 1975
2 1993	2 1992	2 1982	2 1985	2 1992	2 1978	2 1982	2 1976
3 1992	3 1995	3 1989	3 1971	3 1991	3 1983	3 1996	3 1977
4 1994	4 1993	4 1986	4 1988	4 1994	4 1986	4 1995	4 1982
5 1982	5 1973	5 1991	5 1989	5 1988	5 1969	5 1986	5 1984
6 1988	6 1992	6 1961	6 1975	6 1951	6 1986	6 1987	6 1984
7 1995	7 1950	7 1991	7 1981	7 1945	7 1993	7 1993	7 1989
8 1992	8 1993	8 1976	8 1981	8 1963	8 1998	8 1981	8 1995
9 1995	9 1968	9 1989	9 1957	9 1998	9 1985	9 1980	9 1980
10 1986	10 1986	10 1996	10 1960	10 1988	10 1987	10 1995	10 1984
11 1987	11 1991	11 1986	11 1965	11 1995	11 1986	11 1994	11 1985
12 1987	12 1996	12 1995	12 1975	12 1979	12 1988	12 1996	12 1982
13 1992	13 1983	13 1990	13 1964	13 1984	13 1991	13 1993	13 1964
14 1986	14 1982	14 1983	14 1962	14 1993	14 1986	14 1985	14 1958
15 1993	15 1975	15 1994	15 1976	15 1984	15 1984	15 1958	15 1988
16 1997	16 1976	16 1998	16 1953	16 1987	16 1988	16 1950	16 1975
17 1991	17 1995	17 1994	17 1990	17 1985	17 1967	17 1992	17 1994
18 1992	18 1991		18 1978	18 1989	18 1995	18 1989	18 1981
19 1997	19 1998		19 1981	19 1981	19 1953	19 1992	19 1993
20 1983	20 1963		20 1988	20 1983	20 1979	20 1967	20 1988
21 1986	21 1980		21 1992	21 1993	21 1997	21 1994	21 1965
22 1995	22 1981		22 1985	22 1995	22 1973	22 1978	22 1980
23 1991	23 1990		23 1995	23 1997	23 1975	23 1993	23 1970
24 1994	24 1989		24 1995	24 1998	24 1976	24 1964	24 1973
25 1996			25 1979	25 1996	25 1992	25 1992	25 1977
26 1993			26 1994	26 1993	26 1982	26 1996	26 1979
27 1995			27 1993	27 1991	27 1973	27 1994	27 1985
28 1992			28 1984	28 1962	28 1961	28 1989	28 1977
29 1992			29 1988	29 1995		29 1987	29 1974
30 1995			30 1988	30 1990		30 1977	30 1987
31 1974			31 1995	31 1991		31 1983	31 1995
32 1997			32 1994	32 1963		32 1978	
33 1995			33 1996	33 1993		33 1996	
34 1966			34 1988	34 1995		34 1993	
35 1977			35 1988	35 1996		35 1992	
36 1991			36 1977	36 1993		36 1991	
37 1993				37 1997		37 1994	
38 1985				38 1991		38 1995	
				39 1993		39 1988	
				40 1979		40 1987	
				41 1976		41 1989	
				42 1958		42 1996	
				43 1974			
				44 1968			
				45 1998			
				46 1999			
				47 1965			
				48 1988			
				49 1986			
				50 1994			
				51 1961			

1.C

Dates of Publication Per Reference**Volume 12, Issue 2, 1999**

Article One (90 References)	Article Two (40 References)	Article Three (66 References)	Article Four (58 References)	Article Five (50 References)	Article Six (59 references)	Article Seven (33 References)	Article Eight (19 References)
1 1996	1 1963	1 1983	1 1989	1 1990	1 1986	1 1991	1 1978
2 1987	2 1978	2 1991	2 1985	2 1994	2 1988	2 1988	2 1980
3 1989	3 1926	3 1993	3 1996	3 1996	3 1988	3 1989	3 1993
4 1991	4 1962	4 1994	4 1994	4 1983	4 1993	4 1983	4 1986
5 1993	5 1991	5 1982	5 1994	5 1989	5 1985	5 1988	5 1989
6 1987	6 1967	6 1993	6 1997	6 1995	6 1988	6 1977	6 1975
7 1994	7 1982	7 1994	7 1980	7 1980	7 1994	7 1994	7 1971
8 1991	8 1993	8 1989	8 1995	8 1973	8 1982	8 1995	8 1995
9 1981	9 1987	9 1996	9 1978	9 1981	9 1993	9 1995	9 1965
10 1970	10 1992	10 1994	10 1991	10 1974	10 1994	10 1994	10 1972
11 1980	11 1996	11 1988	11 1982	11 1987	11 1991	11 1989	11 1999
12 1985	12 1983	12 1993	12 1994	12 1973	12 1992	12 1993	12 1978
13 1994	13 1951	13 1980	13 1995	13 1950	13 1994	13 1986	13 1985
14 1967	14 1951	14 1987	14 1993	14 1968	14 1993	14 1992	14 1995
15 1994	15 1965	15 1979	15 1983	15 1988	15 1993	15 1978	15 1986
16 1985	16 1966	16 1981	16 1997	16 1978	16 1993	16 1992	16 1999
17 1970	17 1967	17 1995	17 1996	17 1987	17 1994	17 1995	17 1971
18 1969	18 1971	18 1985	18 1997	18 1972	18 1993	18 1991	18 1965
19 1993	19 1985	19 1995	19 1997	19 1987	19 1993	19 1994	19 1981
20 1983	20 1987	20 1985	20 1995	20 1994	20 1991	20 1995	
21 1993	21 1998	21 1995	21 1988	21 1976	21 1994	21 1990	
22 1962	22 1999	22 1974	22 1968	22 1983	22 1995	22 1996	
23 1961	23 1995	23 1986	23 1991	23 1977	23 1995	23 1984	
24 1962	24 1996	24 1990	24 1986	24 1967	24 1959	24 1990	
25 1964	25 1985	25 1982	25 1996	25 1988	25 1990	25 1991	
26 1965	26 1991	26 1994	26 1976	26 1996	26 1992	26 1986	
27 1996	27 1996	27 1976	27 1995	27 1992	27 1999	27 1988	
28 1995	28 1970	28 1991	28 1987	28 1981	28 1998	28 1995	
29 1993	29 1989	29 1991	29 1960	29 1998	29 1995	29 1993	
30 1993	30 1966	30 1998	30 1993	30 1983	30 1993	30 1994	
31 1974	31 1981	31 1999	31 1996	31 1987	31 1969	31 1994	
32 1979	32 1975	32 1999	32 1990	32 1991	32 1995	32 1989	
33 1979	33 1943	33 1976	33 1993	33 1996	33 1977	33 1987	
34 1988	34 1985	34 1991	34 1991	34 1987	34 1933		
35 1988	35 1968	35 1971	35 1995	35 1988	35 1988		
36 1988	36 1995	36 1986	36 1987	36 1993	36 1986		
37 1972	37 1977	37 1987	37 1994	37 1996	37 1984		
38 1973	38 1959	38 1991	38 1990	38 1996	38 1994		
39 1994	39 1985	39 1993	39 1978	39 1990	39 1993		
40 1975	40 1997	40 1986	40 1992	40 1990	40 1990		
41 1988		41 1992	41 1994	41 1982	41 1994		
42 1983		42 1991	42 1995	42 1973	42 1995		
43 1989		43 1987	43 1996	43 1990	43 1996		
44 1991		44 1989	44 1991	44 1973	44 1985		
45 1994		45 1988	45 1999	45 1981	45 1993		
46 1994		46 1964	46 1997	46 1980	46 1987		
47 1994		47 1926	47 1996	47 1994	47 1987		
48 1994		48 1968	48 1997	48 1933	48 1994		
49 1993	70 1956	49 1969	49 1999	49 1965	49 1989		
50 1994	71 1989	50 1972	50 1993	50 1980	50 1993		
51 1999	72 1974	51 1972	51 1997		51 1988		
52 1998	73 1993	52 1979	52 1974		52 1993		
53 1997	74 1967	53 1981	53 1981		53 1994		
54 1976	75 1969	54 1981	54 1968		54 1989		
55 1978	76 1984	55 1987	55 1989		55 1993		
56 1956	77 1976	56 1988	56 1949		56 1992		
57 1976	78 1996	57 1933	57 1983		57 1991		
58 1958	79 1986	58 1984	58 1996		58 1993		
59 1983	80 1993	59 1989			59 1994		
60 1993	81 1993	60 1970					
61 1979	82 1993	61 1981					
62 1986	83 1984	62 1976					
63 1961	84 1983	63 1965					
64 1981	85 1925	64 1969					
65 1978	86 1947	65 1993					
66 1977	87 1959	66 1996					
67 1986	88 1983						
68 1967	89 1969						
69 1952	90 1971						

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Dates of Publication Per ReferenceVolume 12, Issue 3, 1999

Article One (59 Reference	Article Two (42 References	Article Three (14 References	Article Four (19 References	Article Five (26 References	Article Six (120 references)				
1 1969	1 1993	1 1968	1 1991	1 1983	1 1983	54 1993	106 1992		
2 1969	2 1969	2 1905	2 1966	2 1994	2 1990	55 1995	107 1965		
3 1986	3 1974	3 1980	3 1983	3 1990	3 1983	56 1992	108 1962		
4 1998	4 1970	4 1980	4 1996	4 1989	4 1988	57 1990	109 1969		
5 1995	5 1998	5 1993	5 1988	5 1992	5 1989	58 1994	110 1986		
6 1971	6 1970	6 1974	6 1966	6 1981	6 1990	59 1989	111 1970		
7 1974	7 1995	7 1995	7 1996	7 1987	7 1987	60 1966	112 1993		
8 1987	8 1969	8 1984	8 1988	8 1991	8 1991	60 1966	113 1984		
9 1978	9 1987	9 1987	9 1953	9 1992	9 1979	61 1994	114 1990		
10 1950	10 1991	10 1990	10 1995	10 1993	10 1991	62 1982	115 1993		
11 1947	11 1987	11 1986	11 1990	11 1983	11 1990	63 1988	116 1960		
12 1961	12 1963	12 1993	12 1995	12 1988	12 1993	64 1988	117 1991		
13 1983	13 1992	13 1985	13 1983	13 1996	13 1981	65 1992	118 1980		
14 1974	14 1991	14 1988	14 1984	14 1966	14 1989	66 1990	119 1992		
15 1992	15 1989		15 1984	15 1985	15 1966	67 1990	120 1988		
16 1979	16 1975		16 1990	16 1997	16 1989	68 1959			
17 1988	17 1975		17 1994	17 1935	17 1990	69 1987			
18 1994	18 1972		18 1993	18 1988	18 1993	70 1992			
19 1998	19 1983		19 1995	19 1992	19 1985	71 1976			
20 1998	20 1973			20 1990	20 1985	72 1960			
21 1997	21 1994			21 1994	21 1999	73 1993			
22 1998	22 1995			22 1997	22 1993	74 1977			
23 1999	23 1991			23 1990	23 1991	75 1979			
24 1998	24 1993			24 1991	24 1993	76 1982			
25 1994	25 1959			25 1956	25 1993	77 1988			
26 1996	26 1984			26 1989	26 1993	78 1989			
27 1996	27 1991				27 1990	79 1990			
28 1992	28 1986				28 1984	80 1990			
29 1998	29 1993				29 1963	81 1990			
30 1989	30 1979				30 1969	82 1956			
31 1967	31 1957				31 1945	83 1989			
32 1985	32 1993				32 1984	84 1975			
33 1980	33 1993				33 1990	85 1979			
34 1960	34 1995				34 1987	86 1981			
35 1968	35 1970				35 1985	87 1974			
36 1994	36 1981				36 1988	88 1954			
37 1975	37 1989				37 1982	89 1976			
38 1962	38 1985				38 1991	90 1993			
39 1978	39 1994				39 1990	91 1962			
40 1981	40 1992				40 1993	92 1963			
41 1952	41 1958				41 1988	93 1985			
42 1976	42 1974				42 1986	94 1991			
43 1979					43 1989	95 1983			
44 1958					44 1974	96 1978			
45 1968					45 1961	97 1975			
46 1966					46 1981	98 1976			
47 1976					47 1979	99 1977			
48 1980	54 1985				48 1991	100 1980			
49 1967	55 1984				49 1992	101 1983			
50 1981	56 1997				50 1986	102 1985			
51 1996	57 1992				51 1985	103 1991			
52 1979	58 1992				52 1985	104 1987			
53 1988	59 1950				53 1983	105 1979			

2A - 2F Authorship Patterns: Total Number of Authors**1998 Issue 4**

	<u>Last Name</u>	<u>First</u>	<u>Sex</u>
Article 1	Dewey	Alison	f
	Steinberg	Hannah	f
	Coulson	Mark	m
Article 2	Kurtzman	Terri K.	f
Article 3	Service	Robert W.	m
	Boockholdt	James L.	m
Article 4	Zuo	Li	f
Article 5	Vosburg	Suzanne K.	f
Article 6	Butler	Darrell L.	m
	Kline	Michele A.	f
Article 7	Besemer	Susan P.	f
Article 8	Arlin	Patricia Ken	f
Article 9	Levitt	Lori	f

	Total
Number Authors	13
Male Authors	5
Female Authors	8
Male First Authors	2
Female First Authors	2
Indeterminate Gender	1

1999 Issue 1

	<u>Last Name</u>	<u>First</u>	<u>Sex</u>
Article 1	Brower	Richard	m
Article 2	Frantom	Catherine	f
	Sherman	Martin, F	m
Article 3	Cox	Adam J.	m
Article 4	Stokes	Patricia D.	f
Article 5	Therival	William H.	m
Article 6	Dawson	V.L.	indet.
	D'Andrea	Thomas	m
	Affinito	Rosalinda	f
	Westby	Erik L.	m
Article 7	Therival	William H.	m

	Total
Number Authors	12
Male Authors	7
Female Authors	4
Male First Authors	1
Female First Authors	1
Indeterminate Gender	1

1999 Issue 2

	<u>Last Name</u>	<u>First</u>	<u>Sex</u>
Article 1	Milgram	Roberta M.	f
	Hong	Eunsook	f
Article 2	Helson	Ravenna	f
Article 3	Plucker	Jonathan A.	m
Article 4	Suddendorf	Thomas	m
	Fletcher-Fli	Claire M.	f
Article 5	Russ	Sandra W.	f
	Robbins	Andrew L.	m
	Christiano	Beth A.	f
Article 6	Plucker	Jonathan A.	m
	Gorman	Michael E.	m
Article 7	Subotnik	Rena	f
	Steiner	Cynthia	f
	Chakraborty	Basanti	f
Article 8	Runco	Mark A.	m

	Total
Number Authors	15
Male Authors	6
Female Authors	9
Male First Authors	2
Female First Authors	2
Indeterminate Gender	0

1999 Issue 3

	<u>Last Name</u>	<u>First</u>	<u>Sex</u>
Article 1	Cupchick	Gerald C.	m
Article 2	Larey	Timothy S.	m
	Paulus	Paul B.	m
Article 3	Chan	David W.	m
	Chan	Lai-Kwan	indet.
Article 4	Crozier	Ray W.	m
Article 5	Eisenman	Russell	m
Article 6	James	Kieth	m
	Clark	Karla	f
	Cropanzano	Russell	m

	Total
Number Authors	10
Male Authors	8
Female Authors	1
Male First Authors	3
Female First Authors	0
Indeterminate Gender	1

Authorship Patterns Per Journal Year 1999		
		Total
2A	Number of Authors	48
2B	Male Authors	26
2C	Female Authors	22
2D	Male First Authors	8
2F	Female First Authors	6
	Indeterminate Gender	2

3. Methods

	Empirical	Non-empirical	Quantitative Analysis	laboratories	Questionnaire	tests	Interviews	Field Studies	Longitudinal Studies	Archival Studies	Multimethod Studies	Meta-Analytic Studies	Qualitative Analyses	Descriptive/Review	Prescriptive	Technique	Theoretical
Article	x																
Article	x		x				x						x				
Article	x		x									x	x				
Article 4		x															
Article	x		x												x		
Article	x		x			x											
Article	x		x										x				
Article	x		x												x		
Totals	7	1	6			2	1				3		3		2		

Volume 12, Issue 1, 1999

	Empirical	Non-empirical	Quantitative Analysis	laboratories	Questionnaire	tests	Interviews	Field Studies	Longitudinal Studies	Archival Studies	Multimethod Studies	Meta-Analytic Studies	Qualitative Analyses	Descriptive/Review	Prescriptive	Technique	Theoretical
Article 1		x															
Article	x		x		x									x			x
Article	x		x							x							
Article	x		x	x							x						
Article 5		x												x			x
Article	x							x									
Article 7		x												x			
Totals	4	3	3	1	1			1		1	1			3			2

Volume 12, Issue 2, 1999

	Empirical	Non-empirical	Quantitative Analysis	laboratories	Questionnaire	tests	Interviews	Field Studies	Longitudinal Studies	Archival Studies	Multimethod Studies	Meta-Analytic Studies	Qualitative Analyses	Descriptive/Review	Prescriptive	Technique	Theoretical
Article	x								x								
Article	x								x								
Article	x		x						x								
Article	x		x						x	x							
Article	x		x						x								
Article	x		x						x								
Article	x		x						x								
Article	x		x						x								
Totals	8		4						8	1	7	3	3				

Volume 12, Issue 3, 1999

	Empirical	Non-empirical	Quantitative Analysis	laboratories	Questionnaire	tests	Interviews	Field Studies	Longitudinal Studies	Archival Studies	Multimethod Studies	Meta-Analytic Studies	Qualitative Analyses	Descriptive/Review	Prescriptive	Technique	Theoretical
Article 1		x															
Article	x		x														x
Article	x		x														
Article	x		x														
Article	x									x							
Article 6		x															
Totals		2	3			1		2		1	1		4	2	1		2

5. Issues in Title and Focus

(one score category hit for subject addressed in title, and one additional if internal focus falls into another category)

Issue #

- 1 Art/Artistic
- 2 Brainstorming
- 3 Business/Management
- 4 Creative Product
- 5 Cross-cultural differences
- 6 Developmental Processes
- 7 Education
- 8 Emotion
- 9 Enhancement of Creativity
- 10 Freewill/Will
- 11 Gender differences
- 12 Giftedness
- 13 Humor
- 14 Imagery/Visualization/Dreams
- 15 Intelligence and Creativity
- 16 Intuition
- 18 Leadership
- 19 Mental Health
- 20 Motivation/Source/Origin
- 21 Neuro-biological behavior
- 22 Personality
- 23 Potential
- 24 Problem Solving/Incubation
- 25 Psychic/Futuristic
- 26 Science/Scientific
- 27 Social/Environmental influences of Cre
- 28 Synthetic/Divergent Thinking
- 29 Testing/Measurement
- 30 Therapy

	11(4)98								12(1)99							12(2)99								12(3)99						#T's	#F's	
	Articles								Articles							Articles								Articles								
Issue #	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	1	2	3	4	5	6			
1	T									T														T						5	0	5
2																														2	0	2
3																														0	0	0
4																														1	0	1
5																														0	1	1
6																														1	2	3
7																														1	1	2
8																														1	0	1
9																														1	1	2
10																														1	1	2
11																														2	0	2
12																														0	0	0
13																														2	0	2
14																														0	0	0
15																														0	0	0
16																														0	1	1
18																														1	0	1
19																														1	1	2
20																														2	1	3
21																														2	1	3
22																														0	1	1
23																														2	0	2
24																														0	0	0
25																														1	3	4
26																														0	0	0
27																														1	0	1
28																														0	6	6
29																														2	0	2
30																														1	1	2
																														0	0	0
																														29	20	49

Appendix F
Concept Paper

<p>Theme: Organizing, Developing, and Disseminating Knowledge about Creativity.</p> <p>Initiative: Identifying and Studying the Existing Infrastructure and Characteristics of</p>
--

Project Title: Creativity Research Journal, the Year 1999 in Summary.

Rationale and Questions: The purpose of this project is to increase awareness of the content and themes in creativity journals and to continue to develop a previous process model for synthesizing journal literature. The questions that will guide this project are:

- What are the trends in content and method in the Creativity Research Journal for the calendar year 1999?
- What types and kinds of materials appear in the journal?
- What are the implications of this information for the development of the domain of creativity?

Statement of Significance: The role of professional vehicles such as journals in the development of any discipline is important (Murdock, Isaksen, & Trincannati, 1993). Most Journals are published quarterly and consist of juried articles on a variety of topics or one special theme. Regardless of this content focus, a yearly summary is not currently a part of the literature. Recent work at the Center for Studies in Creativity (Bowman Jones, 1999; Donaldson, 1999; Ezrin, 1999) addressed the importance of synthesizing the journal literature on a regular basis. These authors responded to earlier concerns of creativity professionals about the repetitiveness and seemingly disconnected ahistorical approach to prior creativity research and work (Isaksen & Murdock, 1993; Raina, 1993; Stein, 1993).

The current project builds on the above work and disciplinary philosophy by synthesizing the 1999 calendar year of Creativity Research Journal Material for improved access and ease of use in the field.

Description of Method or Process: The project will use qualitative analysis to examine journal themes in the Creativity Research Journal. I will examine carefully the 1999 issues of the journal. The project will follow six basic steps: (1) Become familiar with the Runco and Feist (1993) framework and approach for analyzing the literature; (2) collect and read all journal material published in the Creativity Research Journal in the calendar year 1999; (3) analyze the 1999 material according to the Runco & Feist categories; (4) make changes, additions, modifications or adjustments to their schema as needed or dictated by the data; (5) prepare a full project report that includes the data and is set up in such a way that it is suitable for publication; and/or prepare a 4-6 page executive summary of results to be published electronically in the on-line reading room at the web site for the Center for Studies in Creativity.

Learning Goals:

- Learn to effectively synthesize information;
- Become familiar with current themes in creativity;
- Become familiar with qualitative analysis;
- Recognize the full range of approaches in scholarly research;
- Network with Editors of scholarly journals on creativity; and
- Become knowledgeable in methods and practices required for publishing

Outcomes:

- A complete list of themes from the 1999 Creativity Research Journal;
- A concise analysis of the themes in the 1999 Creativity Research Journal, which could be suitable for publication; and/or a 4-6 page Executive Summary for web publication at the Center for Studies in Creativity.
- Write-up of key content process related learning.
- CBIR Annotations, twenty as topical, one of which will be the project itself.

Timeline:

November: Work on Concept Paper.

December: Reading – identify key topics, trends and themes.

January: Continued reading. Review Feist & Runco Schema (1993) and contact and begin networking with previous author of this project.

February: through April: Writing begins, as well as recording data, analyzing data and continued collaboration with advisor, Dr. Mary Murdock.

May: Final submission of project write-up for review; submission of annotations, and Executive Summary.

Principal Investigators:

Advisor: Dr. Mary Murdock

Collaborator: Hugh Stenson Carroll

Stein, M.I. (1993). The olden days: Better, worse, does it matter? In S.G. Isaksen, M.C. Murdock, R.L. Firestien, D.J. Treffinger (Eds.), *Understanding and Recognizing Creativity: The Emergence of a Discipline*. (pp.477-491). Norwood, NJ: Ablex.