This study examined whether there were any significant differences in academic performance between students taught creative dance movement in a holistic integrated approach versus those taught creative dance movement in isolation. The sample was taken from two third-grade classes of approximately 20 students per class. One class served as an experimental group, and the other served as a control group. For a 6-week period prior to Tennessee Comprehensive Assessment Program (TCAP) testing, one class was taught creative dance movement holistically, and the other class was taught creative dance in isolation. Data were collected from standardized TCAP test scores and end-of-the-6-week grades in English and mathematics and were analyzed using measures of central tendency, dispersion, and t-tests for independent means. Results indicated a significant difference in TCAP scores between students who were taught creative dance movement with a holistic, integrated approach and those who were taught creative dance movement in isolation. The holistic group did better as a group on the TCAP tests. No significant difference was found between the two groups in their English and mathematics grades. (Contains three tables and four references.) (SM)
The Effects of Creative Dance Movement 
Taught in a Holistic Integrated Approach 
Versus Creative Dance Movement Taught in Isolation

Mary Anne Snyder-Sowers 
and 
Patrick Kariuki

Milligan College

A paper presented at the Annual Conference 
of the Mid-South Educational Research Association 
Memphis, Tennessee 
November 11 - 14, 1997

PERMISSION TO REPRODUCE AND 
DISSEMINATE THIS MATERIAL HAS 
BEEN GRANTED BY 
Mary Anne Snyder-Sowers 
TO THE EDUCATIONAL RESOURCES 
INFORMATION CENTER (ERIC)
Abstract
The purpose of this study was to determine if there were any significant differences in academic performance between students taught creative dance movement in a holistic integrated approach versus teaching creative dance movement in isolation. The sample for this study was taken from two third-grade classes of approximately twenty students per class. One class served as an experimental group, the other a control group. For a six-week period prior to TCAP testing, one class was taught creative dance movement using a holistic integrated approach, and the other class was taught creative dance movement in isolation. The data for this study were collected from standardized TCAP test scores and end-of-the-six-week grades in English and Math. Data were analyzed using measures of central tendency, measures of dispersion, and t-tests for independent means. Results indicated that there was a significant difference in TCAP scores between students who were taught creative dance movement in a holistic integrated approach versus those who were taught creative dance movement in isolation. There was no significant difference found between the two groups in their English and Math grades.
The Effects of Creative Dance Movement Taught in a Holistic Integrated Approach Versus Creative Dance Movement Taught in Isolation

Introduction

Rhythm and movement are an integrated part of the life experience, but they are often overlooked and underrated in formal educational settings. Human beings react to the world in physical ways: by feeling, pulling, pushing, throwing, walking, running, jumping, carrying, holding, picking up objects, and putting down objects, just to name a few. The human brain localizes motor skills and problem-solving skills in the same area of memory: The procedural system. Neither classroom nor physical education teachers regularly use this connection to aid the cognitive development of their students. Educators still suffer from the mis-perception that the human mind and body are basically separate (Aldrich, 1989).

However, a relatively new approach to the teaching curriculum in elementary
schools is the use of creative dance movement. Creative dance movement stresses kinesthetic learning: learning through the language of dance and movement (Griss, 1994). Reading kinesthetically, acting out historical events, teaching geography in the gym using time and space, and incorporating math with action and sound are all examples of the use of subliminal messages and reinforcing actions (Sylwester, 1985).

Curricula taught through creative dance movement in a holistic integrated approach offers a different avenue of educating for understanding. Dance helps children make sense of the world around them. Life isn't a multiple-choice test, and it doesn't come with single answers (Gardner, 1993).

The arts, such as dance movement, and education are quite inseparable: one cannot study the arts without background knowledge of math, science, history, reading, and writing. Nor, is one truly universally educated without the knowledge of the arts in culture and history (Griss, 1994).
Method

Subjects:

The subjects for this study consisted of two third-grade public elementary classes of approximately twenty students per class.

Data Collection Instruments:

The data for this study were collected from standardized TCAP (Tennessee Comprehensive Assessment Program) test scores and end-of-the six-week grades in English and Math.

Results

Research Questions:

(1.) Are TCAP scores higher for third-grade public elementary school students taught creative dance movement in a holistic integrated approach than third-grade public elementary school students taught in isolation?
(2.) Are English grades higher for third-grade public elementary school students taught creative dance movement in a holistic integrated approach than third-grade students taught in isolation?

(3.) Are Math grades higher for third-grade public elementary school students taught creative dance movement in a holistic integrated approach than third-grade students taught in isolation?

Table 1 explains the means and standard deviation of TCAP scores of students taught creative dance movement in a holistic integrated approach (experimental) and those taught in isolation (control). The results indicate a significant difference between the experimental and control groups. Students taught in a holistic integrated style scored higher than those taught in isolation.

Table 2 displays a comparison of English grade scores between the experimental and control groups. The results indicated no significant difference between the two groups.

Table 3 presents a comparison of math scores between the experimental and control groups. Results indicated no significant differences between the two groups.
Summary of Findings

When a comparison was made between Tennessee Comprehensive Assessment Program (TCAP) scores of the students who were taught creative dance movement in a holistic integrated approach versus students who were taught creative dance movement in isolation, the results indicated that a significant difference was found. The students who were taught creative dance movement in a holistic integrated approach did better as a group in the TCAP test scores than a selected group of students who were taught creative dance movement in isolation. This may suggest that exposing students to creative dance movement taught in a holistic integrated approach affects them cognitively, where they perform better on standardized tests, than those who are only exposed to creative dance movement taught in isolation.

A comparison between English and Math grades of the students who were taught creative dance movement in a holistic integrated approach versus students who were taught creative dance movement in isolation, indicated
no significant differences. Where as the English and Math grades were about
equal for both groups, the researcher could determine no apparent reason for
this finding, other than the possibility that each classroom teacher's assessment
procedures and grading scales can be quite different from one another.
References


Table 1

$t$-test for Independent Samples of Groups in TCAP

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>SD</th>
<th>$t$ - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>64.55</td>
<td>19.354</td>
<td>1.92 *</td>
</tr>
<tr>
<td>Control</td>
<td>49.60</td>
<td>28.856</td>
<td></td>
</tr>
</tbody>
</table>

Note: * $P < .05$
### Table 2

**t-test for Independent Samples of Groups in English**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>SD</th>
<th>$t$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>87.85</td>
<td>6.572</td>
<td>1.23</td>
</tr>
<tr>
<td>Control</td>
<td>85.10</td>
<td>7.587</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Note: $P < .05$
Table 3

**t - test for Independent Samples of Groups in Math**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>SD</th>
<th>t - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>89.45</td>
<td>5.246</td>
<td>- .97</td>
</tr>
<tr>
<td>Control</td>
<td>91.05</td>
<td>5.165</td>
<td>- .97</td>
</tr>
</tbody>
</table>

Note: $P < .05$
# REPRODUCTION RELEASE

## I. DOCUMENT IDENTIFICATION:

<table>
<thead>
<tr>
<th>Title:</th>
<th>THE EFFECTS OF CREATIVE DANCE MOVEMENT TAUGHT IN A HOLISTIC INTEGRATED APPROACH VERSUS CREATIVE DANCE MOVEMENT TAUGHT IN ISOLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s):</td>
<td>MARY ANNE SNYDER-SOWERS, M. Ed.</td>
</tr>
<tr>
<td>Corporate Source:</td>
<td>MILLIGAN COLLEGE</td>
</tr>
<tr>
<td>Publication Date:</td>
<td>11/13/97</td>
</tr>
</tbody>
</table>

## II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.

- For Level 1 Release: Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) and paper copy.
- For Level 2 Release: Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but not in paper copy.

The sample sticker shown below will be affixed to all Level 1 documents.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

The sample sticker shown below will be affixed to all Level 2 documents.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

* "I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic/optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."*

| Signature: | MARY ANNE SNYDER-SOWERS |
| Organization/Address: | 3859 CARROLL CREEK ROAD | GRAY, TN 37615 |
| Telephone: | 423-753-7646 |
| FAX: | 423-913-8183 |
| E-Mail Address: | carlsowers@aol.com |
| Date: | November 13, 1997 |

---

(over)