Abstract

Background/Objectives: This research has the purpose of investigating the influence of creative personality on dance learning flow of university students majoring in dance. Methods/Statistical Analysis: This research was conducted on 331 university students majoring in dance from 5 universities located in 4 cities. The survey was composed of a total of 48 items including 5 background characteristics, 25 creative personality items, and 18 learning flow items. The subjects were asked to write in self-administration method. SPSS 18.0 statistical program was used on the collected surveys to conduct T-test, one-way ANOVA, correlation, and multiple regression analysis. Findings: First, self-conviction and curiosity among creative personality is higher in males than females and concentration on taking at hand and loss of self-consciousness is higher as well. Also, creative personality was generally high in modern dance majors compared to other majors and loss of self-consciousness among learning flow was shown high in Korean dance. Groups with long dance experience or more practice time showed high imagination, concentration. Second, overall learning flow can increase if self-conviction among creative personality is higher. Also, endurance/obsession, curiosity, and independence partially influence concentration on take at hand, action-awareness merge, challenges-skills balance, and loss of self-consciousness. Application/Improvement: It is important to build confidence on one’s dance and development oneself with challenge and endurance on high assignments. Therefore, this implicates that the clay education must be deviated by the university dance curriculum to actively lead students to the research study process to discover, aware, and use.

Keywords: Creative Personality, Learning Flow, University Students Majoring in Dance

1. Introduction

“Even circus lions learn to sit on a chair with the fear of whips, but those are called well trained, not well educated.” It is a line in the Indian movie “3 Idiots” that was released in 2011. The story of three men who built their dream with brilliant ideas outlasting their professor who only demands 1st place makes us look back at the reality of Korean education. Are we being educated or are we being trained?

Raising creative talents is the demand of the era and is most obvious in the art field. How about the reality in the dance field? Rather than bringing out potential talents and creativity, we are polishing skills to enter the door of university in reality. It may be more appropriate to see that we are being trained rather than receiving dance education.

This problem has been pointed out in many researches and there are many outstanding dancers in Korea, but the lack of outstanding repertory is pointed out in which the problems of choreographer training education have also been pointed out. For this, improvement of university dance education is demanded to raise professionals and research is required for the manifestation of creativity of professional dancers and optimum dance experience.

Creativity means the ‘ability that creates new and appropriate results’ in which it can be shown to be expressed from ‘creative property’ of integration of cognitive, characteristic, and environmental factors. Recently, creativity and innovation have become recognized as important processes for organizations to survive and accomplish challenging goals. Since the 1950s, studies on creativity that have been focused at the individual level...
tended to seek preceding factors that affect creativity in the work environment. Recently, focus is switching to the integrated perspective that states that characteristics of individuals, groups, and the organizational environment must be mingled together.

Creative personality means the inner motivation, attitude, personality, and values as definitive characteristics of creative people in which it has close relation to manifestation of creative ability. High creative personality means that ambiguity is well endured, openness on new experience, belief and conviction on oneself is high said that creative personality is “personality features that can thoroughly interact by searching new ideas in any situation”.

This creative personality can be seen as a characteristic that can influence dance performance processes as creative art experience and the true reason of dancing can be sufficiently predicted to be related to ‘flow’. Flow can be defined as an emotional state of joy, satisfaction, and creativity sensed when all strength is completely concentrated in an activity in which it is experience the optimum condition without exterior interruption with all consciousness heading towards a goal. Flow is the core factor for dancers to have conviction and confidence on dancing in which it is the internal motivation that maintains dance activity. Also, flow experience in dancing is connected to overall satisfaction if one’s life in which it has the role of inspiring quality of life and happiness of dancers.

People achieved success in their field have grown out due to a special experience at the college school. Because creativity of childhood are important, but to challenge the flowers bloom on their potential ability in college toward a lifelong career. In this process, it is the commitment to have an interest in their majors. University students majoring in dance especially face psychological conditions of optimum experience in dance class rather than performance situations unlike professional dancers in which this is called learning flow. Learning flow is a concept connecting flow to learning in which it means the intensity of challenge, concentration, interest, and effort of a performer and means concentrating all energy in the learning process. Considering the research on the influence of creative personality of university students on learning flow and research searching creative personality factors for flow in female high school physical education, related research is lacked despite that creative personality is a variable that can have positive role in dance learning flow experience. Therefore in this study, the influence of creative personality on dance learning flow of university student majoring dance is investigated in which it is expected to provide basic data to develop creative artists and perform optimum dance performances. To accomplish these objectives, this study set such research questions as follows:

- **Question 1.** What is the difference of creative personality and learning flow according to background characteristics of university students majoring dance?
- **Question 2.** What is the influence of creative personality on learning flow of university students majoring dance?

### 2. Research Methods

#### 2.1 Study Subjects

In this study, university students majoring dance were selected as a population to gather a sample through purposive sampling method. 5 universities with dance departments located in Seoul City, Gyeonggi, Gyeongsang, and Gangwon provinces do were randomly selected to sample 331 1st–4th grade university students majoring dance. General characteristics of the research subjects were 54 males(16.3%), 277 females(83.7%), 102 1st graders(30.8%), 77 2nd graders(23.3%), 85 3rd graders(25.7%), 67 4th graders(20.3%), 81 Korean dance majors(24.5%), 130 modern dance majors(39.3%), and 120 ballet majors(36.3%).

#### 2.2 Investigation Tools and Procedure

Questionnaires were used a the investigation tool to investigate the influence of creative personality on dance learning flow of university students majoring dance. The survey was composed of a total of 48 items including 5 background characteristics (gender, grade, major, period of dancing, number of practices), 25 creative personality items, and 18 learning flow items. Personal characteristics such as gender, grade, and major were composed in a nominal scale, and the period of dancing and number of practices were directly written to be transformed into a nominal scale.

The Creative Personality Scale (CPS) developed by was used for creative personality in which 7 subordinate factors. Subordinate factors are self-conviction, humor, openness, imagination, endurance/obsession, curiosity, and independence. The questionnaire developed by Jackson was used for learning flow in which 4 subor-
ordinate factors. Subordinate factors are concentration on take at hand, action-awareness merge, challenges-skills balance, and loss of self-consciousness. The validity coefficient and reliability of the survey items are shown in Table 1.

2.3 Procedure and Data Analysis

The researcher and research assistant visited the 5 corresponding universities to distribute surveys, sufficiently explained the purpose of this research, and the subjects were asked to write in self administration method. SPSS 18.0 statistical program was used on the collected surveys to conduct T-test, one-way ANOVA, correlation, and multiple regression analysis. Significant level was set to α=.05 during statistical application and Scheffe test was used for the post verification during one-way ANOVA.

3. Results

3.1 Difference of Creative Personality of University Students According to Personal Characteristics

The result of investigating if there is difference in creative personality of university students majoring dance according to personal characteristics are shown in Table 2. As seen in Table 2, as result of analyzing the difference of creative personality according to gender, significant difference was shown in self-conviction (t=3.039, p<.01) and curiosity (t=3.244, p<.01). Self-conviction and curiosity was shown higher in male students (M=3.90, 3.66) than female students (M=3.63, 3.33).

As result of analyzing the difference of creative personality according to major, significant difference was shown in self-conviction (F=4.668, p<.05), openness (F=3.367, p<.05), imagination (F=3.689, p<.05), and endurance/obsession (F=4.543, p<.05). As result of post verification, self-conviction was higher in the modern dance major group (M=3.80) than the Korean dance (M=3.58) and ballet major group (M=3.61), the modern dance major group (M=3.69, 3.20) had higher imagination than the Korean dance major group (M=3.46) and higher endurance/obsession than the ballet major group (M=2.93).

Table 1. Reliability and validity coefficient of survey items

| Item                  | Number of Items | Reliability Coefficient | Accumulated Index of Dispersion |
|-----------------------|-----------------|--------------------------|---------------------------------|
| Creative Personality  | 25              | .861                     | 62.247                          |
| Learning Flow         | 18              | .902                     | 61.781                          |

Table 2. Difference of creative personality of students according to personal characteristics

| Variable | Feature | Self-conviction | Humor | Openness | Imagination | Endurance/obsession | Curiosity | Independence |
|----------|---------|-----------------|-------|----------|-------------|---------------------|-----------|--------------|
|          |         | M               | M     | M        | M           | M                   | M         | M            |
| Gender   | Male    | 3.90            | 3.18  | 3.62     | 3.66        | 3.24                | 3.66      | 3.52         |
|          | Female  | 3.63            | 3.22  | 3.62     | 3.59        | 3.04                | 3.33      | 3.61         |
|          | T-value | 3.049**         | -.336 | .044     | .740        | 1.899               | .3244**   | -.833        |
| Major    | Korean  | 3.58            | 3.14  | 3.55     | 3.46        | 3.06                | 3.33      | 3.58         |
|          | Modern  | 3.80            | 3.29  | 3.76     | 3.69        | 3.20                | 3.50      | 3.65         |
|          | Ballet  | 3.61            | 3.18  | 3.52     | 3.59        | 2.93                | 3.3       | 3.56         |
|          | F-value | 4.668*          | 1.281 | 3.367*   | 3.689*      | 4.543*              | 3.226     | .492         |
|          | Scheffe | b>a,c           |       |          |             |                     |           |              |
| Number of Practices | 3 or less | 3.60            | 3.13  | 3.62     | 3.47        | 3.12                | 3.35      | 3.56         |
|          | 4~5 times | 3.62           | 3.16  | 3.57     | 3.52        | 3.01                | 3.34      | 3.58         |
|          | 6 or more | 3.78          | 3.32  | 3.68     | 3.76        | 3.12                | 3.46      | 3.64         |
|          | F-value | 2.895          | 2.110 | .676     | 7.139*      | .943                | 1.082     | .360         |
|          | Scheffe | c>a,b          |       |          |             |                     |           |              |

*p<.05, **p<.01
There was significant difference in openness, but difference was not shown between groups in which difference was shown in order of modern dance (M=3.76), Korean dance (M=3.55), and ballet (M=3.52) majors. As result of analyzing the difference of creative personality according to number of practices, significant difference was shown in imagination (F=7.139, p<.05). As result of post verification, imagination was shown to be higher in the group that practices 6 or more days a week (M=3.66) and 4–5 times a week (M=3.57) group. Significant difference was not shown in creative personality according to period of dancing.

3.2 Difference of Learning Flow of University Students According to Personal Characteristics

The result of investigating if there is difference in learning flow of university students majoring dance according to personal characteristics are shown in Table 3. As seen in Table 3, as result of analyzing the difference of learning flow according to personal characteristics, significance difference was shown in concentration on take at hand (t=3.768, p<.001) and loss of self-consciousness (t=.297, p<.001) in difference according to gender. Male students (M=3.80, 3.46) all showed higher concentration on take at hand and loss of self-consciousness than female students (M=3.45, 2.98).

As result of analyzing the difference of learning flow according to major, significance difference was shown in loss of self-consciousness (F=5.579, p<.01). As result of post verification, loss of self-consciousness was higher in the Korean dance major group (M=3.23) than the ballet major group (M=2.87). As result of analyzing learning flow according to period of dancing, significant difference was shown in concentration on take at hand (F=3.361, p<.01) and action-awareness merge (F=5.063, p<.01). As result of post verification, concentration on take at hand was higher in the group of 10 years or more in dancing (M=3.66) than the 5~10 years group (M=3.43) and action-awareness merge was higher in the group of 10 years or more in dancing (M=3.58) than under 5 years (M=3.28).

Table 3. Difference of learning flow of students according to personal characteristics

| Variable              | Feature | Concentration on take at hand | Action-awareness merge | Challenges-skills balance | Loss of self-consciousness |
|-----------------------|---------|--------------------------------|------------------------|---------------------------|-----------------------------|
|                       |         | M                              | M                      | M                         | M                           |
| Gender                | Male    | 3.80                           | 3.51                   | 3.86                      | 3.46                        |
|                       | Female  | 3.45                           | 3.33                   | 3.80                      | 2.98                        |
| T-value               |         | 3.768***                       | 1.826                  | .539                      | .297***                     |
| Major                 | Korean  | 3.46                           | 3.44                   | 3.68                      | 3.23                        |
|                       | Modern  | 3.61                           | 3.39                   | 3.85                      | 3.11                        |
|                       | Ballet  | 3.43                           | 3.28                   | 3.86                      | 2.87                        |
| F-value               |         | 2.718                          | 1.460                  | 2.277                     | 5.579**                     |
| Scheffe               |         |                                |                        |                           | a>c                         |
| Period of Dancing     | Less than 5 | 3.53                       | 3.28                   | 3.83                      | 3.09                        |
|                       | 5~10 years | 3.43                       | 3.31                   | 3.75                      | 3.03                        |
|                       | 10 or more | 3.66                       | 3.58                   | 3.92                      | 3.07                        |
| F-value               |         | 3.361*                         | 5.063**                | 1.787                     | .221                        |
| Scheffe               |         | c>b                            | c>a, b                 | c>b                      |
| Number of Practices   | 3 or less | 3.41                        | 3.31                   | 3.66                      | 3.13                        |
|                       | 4~5 times | 3.43                        | 3.23                   | 3.08                      | 2.97                        |
|                       | 6 or more | 3.66                        | 3.54                   | 3.90                      | 3.12                        |
| F-value               |         | 5.300**                        | 7.678**                | 3.015                     | 1.543                       |
| Scheffe               |         | c>a, b                         | c>b                    | c>b                      |

*p<.05, **p<.01 ***p<.00
and 4~5 years group (M=3.31). As result of analyzing the difference of learning flow according to number of practices, significant difference was shown in concentration on take at hand (F=5.300, p<.01) and action-awareness merge (F=7.678, p<.01). As result of post verification, concentration on take at hand was higher in the group of 6 or more practices a week (M=3.66) than 3 times or less a week (M=3.41) and 4~5 times a week group (M=3.43), and action-awareness merge was higher in the group of 6 or more practices a week (M=3.54) than the 4~5 times a week group (M=3.23). There was no significant difference of learning flow according to grade.

### 3.3 Influence of Creative Personality on Learning Flow of University Students Majoring in Dance

As result of correlation analysis between all variables before data analysis, there were variables that showed somewhat high correlation coefficients between measured variables as shown in Table 4, but most were .50 or lower in which each variables were shown to be mutually independent.

The results of multiple regression analysis to investigate the influence of creative personality on learning flow of university students majoring dance are shown in Table 5. Self-conviction which is a subordinate factor of creative personality showed to have significant influence on all subordinate factors of learning flow including concentration on take at hand (β=.239), action-awareness merge (β=.149), challenges-skills balance (β=.215), and loss of self-consciousness (β=.180). It was shown that imagination had significant influence on concentration on take at hand (β=.119) and challenges-skills balance (β=.265). It was shown that endurance/obsession had significant influence on concentration on take at hand (β=.221), action-awareness merge (β=.216), and loss of self-consciousness (β=.190). It was shown that independence had significant influence on concentration on take at hand (β=.124) and action-awareness merge (β=.187), and curiosity had significant influence only on concentration on take at hand (β=.121). Total prediction variance of creative personality on learning flow was shown as 29.1% concentration on take at hand, 19.3% action-awareness merge, 20.9% challenges-skills balance, and 12.8% loss of self-consciousness.

### Table 4. Analysis on correlation between creative personality and learning flow

| Variables                             | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Self-conviction                    | 1     |       |       |       |       |       |       |       |       |       |       |
| 2. Humor                              | .217**| 1     |       |       |       |       |       |       |       |       |       |
| 3. Openness                           | .370**| .243**| 1     |       |       |       |       |       |       |       |       |
| 4. Imagination                        | .416**| .208**|.360**| 1     |       |       |       |       |       |       |       |
| 5. Endurance/obsession                | .401**| .280**|.323**| .313**| 1     |       |       |       |       |       |       |
| 6. Curiosity                          | .371**| .312**|.405**| .355**| .444**| 1     |       |       |       |       |       |
| 7. Independence                       | .382**| .100  | .188**| .233**| .233**| .218**| 1     |       |       |       |       |
| 8. Concentration on task              | .434**| .119* | .198**| .326**| .401**| .335**| .304**| 1     |       |       |       |
| 9. Action-awareness merge             | .326**| .149**| .146**| .242**| .333**| .197**| .304**| .691**| 1     |       |       |
| 10. Challenges-skills balance         | .370**| .165**| .205**| .388**| .230**| .223**| .206**| .529**| .414**| 1     |       |
| 11. Loss of self-consciousness        | .289**| .110* | .198**| .136* | .294**| .208**| .159**| .437**| .416**| .127* | 1     |

*p<.05, **p<.01
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### Table 5. Regression analysis on the influence of creative personality on learning flow

| Variable      | Concentration on Take at hand | Action-awareness merge | Challenges-skills balance | Loss of self-consciousness |
|---------------|-------------------------------|------------------------|---------------------------|-----------------------------|
|               | b    | β     | t    | b    | β     | t    | b    | β     | t    | b    | β     | t    | b    | β     | t    |
| (Constant)    | 1.112| 4.566 |      | 1.277| 4.642 |      | 1.557| 5.902 |      | 1.177| 3.414 |      |
| Self-conviction| .252 | .239  | 4.116*** | .166 | .149  | 2.407** | .233 | .215  | 3.511*** | .242 | .180  | 2.798** |
| Humor         | -.047| -.054 | -1.072| .034 | .037  | .691  | .042 | .047  | .881  | -.006| -.005 | -.090|
| Openness      | -.052| -.064 | -1.172| -.040| -.046 | -.797 | -.005| -.006 | -.108 | .067 | .064  | 1.067|
| Imagination   | .122 | .119  | 2.196* | .091 | .084  | 1.448 | .278 | .265  | 4.623***| -.056| -.043 | -.711|
| Endurance     | .199 | .221  | 3.972***| .205 | .216  | 3.634***| .031 | .034  | .576  | .218 | .190  | 3.076**|
| Curiosity     | .111 | .121  | 2.127* | -.017| -.018 | -.290 | .011 | .012  | .194  | .047 | .040  | .630 |
| Independence  | .107 | .124  | 2.427* | .170 | .187  | 3.418**| .043 | .048  | .892  | .039 | .035  | .626 |
| R²/ F value   | .291/18.898*** | .193/11.012*** | .209/12.217*** | .128/6.778*** |

*p<.05, **p<.01 ***p<.001

### 4. Conclusions

This research has purpose of investigating the influence of creative personality on learning flow of university students majoring dance. This research was conducted on 331 university students majoring dance from 5 universities located in Seoul City, Gyeonggi, Gyeongsang, and Gangwon provinces in which meaningful research results that can induce flow experience of students in dance departments. Based on this, the following conclusions are suggested.

First, self-conviction and curiosity among creative personality is higher in male students than females students and concentration on take at hand and loss of self-consciousness is higher as well. The discussion on the gender role in the modern society is anachronous, but it can be said that the introduction process of men in majoring dance is rough. Male students who have penetrated that rough process can predict the results of desperate effort for self realization. Creative personality was generally high in modern dance majors compared to other majors and loss of self-consciousness among learning flow was shown high in Korean dance. Modern dance majors experience more processes of creation with material of contemporary life compared to other majors. According to Hsu’s research, modern dance must be understood in all aspects that we face today and the significance of wide mind of great capacity and expansion of thinking was mentioned as they should be expressed as ‘dancing modern young people who are students’ rather than ‘students who do modern dancing.’

Groups with long dance experience or more practice time showed high imagination, concentration on take at hand and action-awareness merge among learning flow. Divergent thinking in the creative process of dance activities may have a positive thinking to the imagination. This is a result that proves to be enough to change by the environment, not to see the creative personality as a natural talent. Therefore curriculum of department of dance will be further reinforced creative research process. Also, there can be difference in degree or level of flow, but there is a general context that it is experienced by people with sufficient dance experience and much career.

Second, overall learning flow can increase if self-conviction among creative personality is higher. Self-conviction can be explained as high evaluation on one’s value or ability, thus confidence. As seen in previous research that confidence increases flow\textsuperscript{18}, the significance of self-conviction tendency can be mentioned to enhance the flow experience of university students majoring dance. Also, self-conviction had influence on all subordinate factors of learning flow including concentration on take at hand, action-awareness merge, challenges-skills balance, and loss of self-consciousness. Imagination had influence on concentration on take at hand, action-awareness merge, and loss of self-consciousness. Imagination had influence on concentration on take at hand, action-awareness merge, and loss of self-consciousness. Imagination had influence on concentration on take at hand, action-awareness merge, and loss of self-consciousness. Independence had influence on concentration on take at hand and challenges-skills balance. Endurance/obsession had influence on concentration on take at hand and challenges-skills balance. Endurance/obsession had influence on concentration on take at hand and challenges-skills balance. Therefore the clay education must be deviated by the university dance curriculum to actively lead students to the research study process to discover, aware, and use it.
Based on the conclusion above, it could be known that the role of creative personality for optimum dance experience is the meaning that this research has. Creative personality factors have unique tendency of individuals, but they can be improved through education and effort. It is important to build confidence on one's dance and development oneself with challenge and endurance on high assignments. Rather than being bound in improving skills, university dance education should be improved to expand insight and creative thinking.

5. References

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