

□報告□

## Competence psychological evaluation on the written impressions of schoolchildren for the group art therapy using soft clay and collages

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### Abstract

**SUBJECT AND METHOD:** One hundred twenty-nine written impressions following the group art therapy using soft clay and collage in a children's classroom were investigated. To investigate the competences of schoolchildren, their impressions were classified according to the 24 components of the five factor competences. To ensure content validity, this classification was adapted to the schoolchildren's questionnaire from The Ministry of Education, Culture, Sports, Science and Technology – Japan.

**RESULTS:** The evaluation by competence components brought us more detailed information. Most of the children approached this task with interest and curiosity, expended effort during the exercise, felt comfortable, engaged in friendly interaction with classmates, and gained efficacy. According to classification on the MEXT questionnaire, schoolchildren basically need to have self-control (time management) and be able to engage in task accomplishment related to their interests, curiosities, and problem solving in learning. These results indicate the content validity of the method of evaluation, which is classified by the competence components.

**CONCLUSION:** This procedure should be valuable in developing useful evaluations for interventions and individual empowerment programs.

**Keywords:** Art Therapy, Witten Impression, Competence, Empowerment, Schoolchildren

## 軽量粘土及びコラージュを用いたグループ芸術療法体験に関する 児童の感想文のコンピタンス心理学的視点からの評価

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### 抄 録

**材料及び方法:** 集団芸術療法後の児童129人の感想をコンピタンス心理学視点から分析した。児童の表出したコンピタンスについて5因子24構成成分に分類した。この分類法の内容的妥当性を確かめるため、文部科学省による児童質問紙の質問項目を同様に分類した。

**結果:** 軽量粘土法とコラージュ法による介入は、コンピタンス5因子に関連を与えていた。大部分の児童は、興味・関心を持って接し、挑戦し、快さを感じた。そして、友好的になり効力感を得た。文部科学省児童質問紙の分析からは、児童は基本的に自己制御力(時間管理)、仕事達成力、興味と好奇心、学業における問題解決力を持つことが必要とされることが明らかになった。このことから、コンピタンス構成成分を使った評価法の内容的妥当性が確認された。

**結論:** 芸術療法に対するコンピタンス心理学的分析法は、児童のエンパワメントプロセスでの解明において有効な視点であることが確認された。

**キーワード:** 芸術療法, 感想文, コンピタンス, エンパワメント, 小学生

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## I. Introduction

Nakagome<sup>1)</sup> studied the factors that constitute effective training for schoolchildren with problem behavior in order to help them create positive relationships with classmates. Group art therapy using soft clay and collages was adapted for 129 schoolchildren that included some students with a history of problems at school. Changes in anxiety and impressions after the therapy for all participants were investigated, and the behavior of some students who exhibited problem behaviors was observed. By using the K-J Method<sup>2,3)</sup>, their written impressions were summarized into three categories of “was pleasant,” “was enjoyable,” and “was delightful.” However, these

results are not sufficient to conduct an evaluation of artistic interventions. As the K-J Method resulted in a process similar to integration, we determined another method was needed. This report details one of trials conducted to search an adequate method for evaluation of the intervention in art therapy.

Through investigation of empowerment for children, we focused on the concept of competence. Competence is considered as an essential element in the promotion of an effective interaction with one’s environment<sup>4)</sup>, and as one of the basic needs of “SELF” as well as the ability to carry out action<sup>5)</sup>. Harter<sup>6)</sup> and Katsumata<sup>7)</sup> have developed competence questionnaires. We referred to the competence components of the

Table 1. The List of five competence factors and 24 components

I. Cognitive Competence (Eight components: I a – I h)	
a. Sensation & Perception :	(1) sensation, (2) perception
b. Verbal:	(1) verbal comprehension, (2) verbal expression
c. Thinking:	(1) judgment, (2) decision, (3) reasoning, (4) problem solving, (5) imagination, (6) creativity
d. Attention:	(1) concentrating attention, (2) observation
e. Cognitive style:	(1) concern (interest, curiosity), (2) flexibility
f. Memory:	(1) short-term memory, (2) long-term memory
g. Learning:	(1) leaning ability, (2) scholastic achievement
h. Planning:	(1) Planning ability
II. Physical Competence (Five components: II a – II e)	
a. Physical form (appearance) :	(1) height, (2) weight, (3) the girth of the chest
b. Physiological function :	(1) internal organs, (2) internal secretion, (3) sexual maturity
c. Motor performance :	(1) general motor ability, (2) motor fitness, (3) physical fitness, (4) strength and endurance of arm and shoulder girdle
d. Physical health :	(1) medical history, (2) state of health
e. Physical action :	(1) (physical) expression, (2) voice, (3) posture, (4) motion (movement, action)
III. Social Competence (Five components: III a – III e)	
a. Self-disclosure	b. Friendliness
c. Cooperation	d. Social interchange
e. Leadership	
IV. Survival competence (Four components: IV a – IV d)	
a. Volition :	(1) will, desire, (2) subjectivity, (3) challenge, (4) achievement motivation
b. Diligence :	(1) effort, (2) continuation
c. Self-control :	(1) time management, future time perspective, (2) autonomy, (3) sense of responsibility, (4) perseverance, (5) economic control
d. Task accomplishment :	(1) studies activities (attending school, studies), (2) vocational activities (attendance, duties, labor)
V. General Self-Esteem Competence (Two components: V a – V b)	
a. 3A of emotional stability :	(1) affection, (2) acceptance, (3) approval
b. Self-confidence :	(1) sense of competence, (2) sense of efficacy

Kumamoto University Competence Scale (the KUCS) by Katsumata. The competence factors and their components according to Katsumata are shown in Table 1.

The purpose of the present report is to conduct a trial to ensure the validity of using a competence component to study the intervention through art therapy.

**II. Subjects and Methods**

One hundred twenty-nine written impressions following art therapy using soft-clay and collage were investigated. These data had been collected in the previous research conducted by Nakagome. She researched four classes (totally 129 schoolchildren, included ten children with problem behaviors). In the clay work, students created the work freely using ultra soft clay, and showed each other. In the collage work, each class was divided into some groups. Each group conducted a collage cooperatively. Later their written impressions were collected. To examine the competence of schoolchildren stimulated by this therapy, each written impression was classified in terms of five competence factors including 24 components.

Moreover, the questionnaire developed by The Ministry of Education, Culture, Sports, Science and Technology - Japan (the MEXT) was used to ensure the content validity of the competence classification. The MEXT investigated issues of importance related to the school and home lives of sixth-grade students in elementary school. Items from the questionnaire<sup>8)</sup> for sixth-grade students were also classified in terms of competence psychology.

This study is executed by using the data of the master degree thesis, which approved by the ethics committee.

**III. Results**

1. Competence classification of written impressions for art therapy

The written impressions by schoolchildren following art therapy were classified into competence components. In Cognitive Competence, 79.1% (noted *Ie* in Figure 1) of students expressed concern (interest, curiosity), and attempted to express what they had created (31.8%, *Ib*). Some (from 1 to 6 students) showed “thinking component: judgment, decision, reasoning, problem solving, imagination, and creativity,” and three students felt they had gained “leaning ability.” In Physical Competence, 14% (*IIf*) of students felt a physiological function (distressed, not irritable, calmed, etc.). In Social Competence, “friendliness at school” and “friendliness with family” were 15.5% and 2.3%, respectively (totally 17.8%, *IIIb*). One student reported thinking about “social interchange at school or in the neighborhood.” In Survival Competence, 33.3% (*IVa*) of them expressed the volition component (challenge). In the component representing “diligence,” one student reported “effort” and “continuation.” In General Self-esteem Competence, “approval in emotional stability” were demonstrated in 5.4% (*Va*) of students, and the rates of “sense of competence” and “sense of efficacy” were 2.3% and 10.1% respectively (totaling 12.4%, *Vb*).

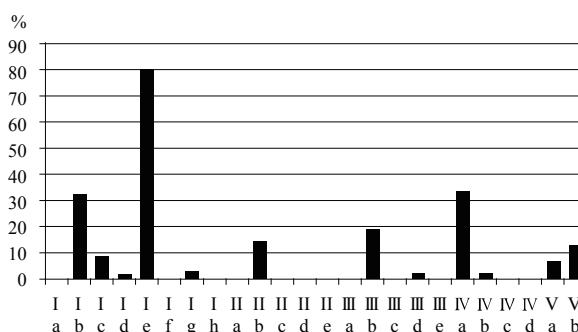


Figure 1. Competence components of written impressions after the art therapy

The practice using soft clay and collage interventions was shown to be related to five competence factors. Most of the schoolchildren enjoyed this task with interest and curiosity, extended effort, felt comfortable, became friendly with their classmates, and gained efficacy.

## 2. Competence classification of questions in the MEXT

The number of question items was related to the competence factors (Figure 2). The items of the MEXT were related with Cognitive competence (34 items), Physical competence (1 item), Social competence (11 items), Survival competence (29 items) and General self-esteem competence (2 items). In Cognitive competence, the questions primarily covered “concern (interest, curiosity),” “problem solving in thinking component,” and “learning ability.” These comprised twelve, eight, and six questions, respectively. Other questions were for “judgment,” “creativity,” “attention,” “flexibility,” and “planning.” In Physical competence, students were asked about “physical health” in one question. For Social competence, “self-disclosure,” “friendliness at school,” “cooperation at home,” and “social interchange at school and in neighborhood surroundings” were asked as a list of

four questions. In survival competence, the majority of required questions related to “time management in self-control component (ten questions)” and “studies activities in task accomplishment component (six questions).” Other questions addressed “subjectivity, challenging situations, and achievement motivation in volition” and “autonomy and sense of responsibility in self-control.” These ranged from one to four questions. In General self-esteem competence, there were two questions concerning “sense of competence in self-confidence.”

The competence classification of the MEXT questionnaire showed that schoolchildren basically had need to have self-control (time management) and be able to engage in task accomplishments that are related to their interests and help them carry out problem solving in learning. The MEXT questionnaire had been designed to inquire about “basic lifestyle,” “norm consciousness,” “interest, volition and attitude for learning” etc. This result indicates the content validity of the evaluation using competence components.

## IV. Discussion

The MEXT asks schoolchildren about the entirety of their school lives. On the other hand, the ethics class is only one part of the students’ lives at school, yet it plays an important role in their education. The art therapy in the ethics class engendered specific impressions related to the children’s way of thinking. Actually many of these feelings are expressed in words such as detail challenges, comfort, friendliness, and efficacy.

Nakagome<sup>1)</sup> introduced the therapy (soft clay and collage) for schoolchildren with an expectation that this might help students with problem behaviors to improve relationships with others and ease tension, and therefore the potential for problems, in the classroom. The art therapy was successful and problem

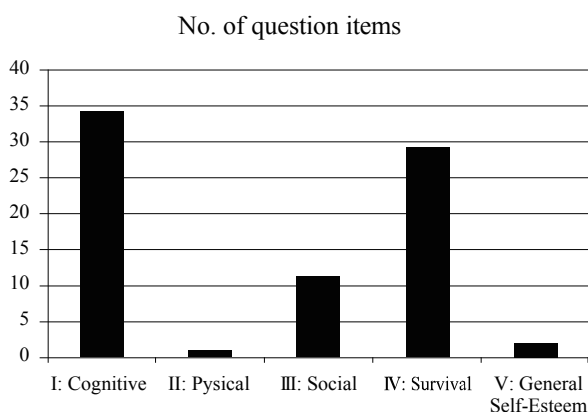


Figure 2. Classification of the MEXT Question Items to Competence Factors

behaviors were not seen in the session. Most of the children approached the art therapy with both interest and curiosity, expended effort during the task, felt comfortable, interacted with classmates in a friendly manner, and gained efficacy. If this intervention will be repeated several times, these processes might be integral as the program for empowerment. Nakagome collected written impressions and got rough emotional conditions. In order to evaluate the change of individual empowerment, a valid and detailed assessment is required.

Kameguchi and Hayes<sup>9)</sup> investigated empowerment for schoolchildren, and showed three processes of Essential Attitudes, Decision-Making Process, and Interpersonal Expectations. In Essential Attitudes, factors of Caring, Commitment and Collaboration were involved. These three factors can be explained for competence components (friendliness, cooperation, social interchange, and leadership). In Decision-Making Process (factors of Access, Action, and Accountability), schoolchildren must exhibit concern, engage in physical action, and show verbal expression of cognitive and physical competence components. Concerning Interpersonal Expectations (factors of

Roles, Rules, and Responsiveness), they need to acquire leaning ability, cooperation, and a sense of responsibility of cognitive, social, and survival competence components.

In 2010 Cattaneo & Chapman<sup>10)</sup> detailed the Empowerment Process Model (Figure 3). They considered three main factors: efficacy, knowledge and competence. These factors are also explained by Katsumata's competence components. Even now, the empowerment process models are also being considered.

In order to conduct continuous intervention for schoolchildren, it is necessary to carefully plan the program of empowerment and the items on the questionnaire to ensure the components of competency. Individual competence must be traced through the program. From the perspective of Competence Psychology, it is an ideal for schoolchildren to feel 3A of emotional stability (Affection, Acceptance, Approval) and gain self-confidence (Sense of competence, Sense of efficacy) through the group therapy.

## V. Conclusions

Schoolchildren's written impressions following the group art therapy using soft clay and collages were classified by the competence components. This method was also adapted to the MEXT questionnaire, and the content validity was confirmed. The competence component method would be thought to make useful evaluations for the interventions and the individual empowerment process.

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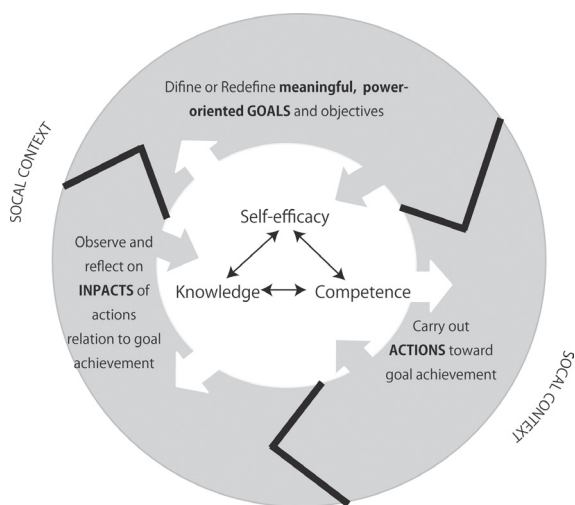


Figure 3. The Empowerment Process Model by Cattaneo and Chapman. Copyright 2010 by the American Psychologist Association

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