

Influence of Young Children's Life Experiences on Distracting Behaviors: An Example of a Shadowing Teaching Activity

Dinglin Chen*

School of Early-childhood Education, NanJing XiaoZhuang University, Nanjing, 211171, China

*DinLing_Chen@outlook.com

ABSTRACT

This paper investigates the effect of whether young children have life experience on inhibiting distracted behavior from the perspective of micro scientific collective teaching activities. In this work, Self-administered young children's shadow experience questionnaire was used to distinguish the experimental and control groups through conversation, and the attention level observation recording form and operational definition of distracting behavior were used to conduct experiments on 18 young children in a kindergarten in one kindergarten of city T. T-tests of the experimental data were carried out using SPSS22.0. Under the premise of controlling age, activity plan and other variables, different groups of samples for the number of distracting behaviors all do not show significance ($p > 0.05$), meaning that different groups of samples for the number of distracting behaviors all show consistency, and there is no difference. In conclusion, the samples of different groups do not show significant differences in the number of distracting behaviors. The results indicate the presence or absence of life experience in young children does not have a significant effect on distracting behaviors.

KEYWORDS

Life Experiences; Distracting Behavior; Shadowing Activities; Young Children.

1. INTRODUCTION

During the researcher's internship in kindergarten, he found that distracting behaviors during group teaching activities varied widely among children. Some children were able to maintain their attention throughout the 20-minute instructional activity, while others were distracted shortly after or even at the beginning of the activity. The researcher also observed that some children maintained a high level of attention to the learning content with which they had experience, while they were distracted at other times. As a result, the quality of children's learning in a classroom varies. Currently, although a number of studies have examined young children's distracting behaviours, few studies have analysed them from the perspective of life experience. In this work, we conduct experiments and record observations of 4-5 year old children's distracted behaviour in a shadowing activity to reveal the effect of the presence or absence of life experience on young children's distracted behaviour.

2. LITERATURE REVIEW

First of all, it is particularly important to focus on attention problems. Some studies have found that persistent poor attentional development in early childhood may affect children's ability to acquire new skills and knowledge later in life [1], which in turn affects children's achievement in all areas [2]. It has also been shown that attention problems in the first grade can adversely affect achievement,

and that children with inattention in the first grade do not perform even as well in the fifth grade as they are expected to achieve [3].

There are many influences on the emergence of distracted behavior in young children. Some children quickly give up their efforts when they don't get the chance to answer questions in the game because they are introverted and slow to react, which leads to distraction [4]. In language education activities, if the teacher ignores the life and contextual nature of the occurrence and application of language in young children, it will also lead to low interest in language area activities and lack of participation in language activities in older classes [5]. Television exposure also tends to cause distraction of young children's attention [6].

Although many studies have revealed some of the causes of distraction, Dewey's theory of "education as life" and Chen Heqin's theory of "living education" have emphasized the relationship between education and life to varying degrees. Some studies have found that in environmental decoration activities, awakening children's life experience is one of the keys to their successful experience [7]. For kindergarten music teaching, the interest and instincts of young children can be stimulated by reducing the music aesthetic experience to the level of life experience that they can understand [8]. For young children's reading activities, young children's existing experience has a very important role in constraining the effectiveness of reading activities [9]. Young children's learning is based on experience, and their play and life cannot be separated from the perception and acquisition of experience [10].

Therefore, educational activities must be closely linked to young children's lives, and curricula should be created from value-rich life content, so as to encourage young children to explore new areas on the basis of their existing life experiences [11]. Valuing the unique value of life experience in young children's learning and development, emphasizing the connection between learning and young children's daily life and social life, so that young children can be more efficient and lively in the activities of constructing complete experience, and then stimulate their enthusiasm and initiative to participate in the activities [12]. To carry out creative games with the help of daily life, that is to say, to give the right to develop, create, and workshop the hand shape in the game to the young children, so that the people, things, and objects in the young children's life can become the source of their finger game creation [13]. All of the above studies reveal the importance of life experience. Then, there are two theories about whether life experience affects attention - cognitive load theory and attentional resource limitation theory.

Cognitive load theory proposes an explanation for attentional distraction. In the 1980s, the cognitive load theory proposed by John Sweller, an Australian cognitive psychologist, argued that working memory with limited capacity and long term memory with infinite capacity are interrelated as one, and that when the cognitive load induced by the knowledge to be learned is relatively low, the cognitive load induced by the instructional design has a weaker effect on learning outcomes. Conversely, the cognitive load induced by this instructional design is critical for learning [14]. From this, it can be found that distracting behavior is influenced by cognitive load. Young children's working memory is limited, and their pre-existing life experiences may take up a portion of the schemas stored in their long term memory to construct knowledge by reorganizing the information elements and merging low level schemas into high level schemas, thus reducing the working memory capacity [15], which in turn reduces their cognitive load in learning and attentional distraction behaviors.

On the other hand, Kahneman, in his 1973 book *Attention and Effort*, proposed a theory of attentional resource limitation and viewed attention as a very limited mental resource, with different cognitive activities placing different demands on attention. When the more complex the stimulus or the more complex the processing task, the more cognitive resources are occupied. When cognitive resources are fully occupied, other inputs will not be processed, i.e., not attended to [15]. From the perspective

of this theory, young children's life experiences may occupy cognitive resources, which can cause distraction.

Currently, there are fewer studies on the effects of young children's prior experience on attention. Whereas the cognitive load theory and the attentional resource limitation theory have different perspectives on my research question, my study may validate one of these perspectives and propose a new perspective for studying the influences on distracting behaviors. This study proposes the hypothesis that children's pre-existing life experiences will inhibit distracting behaviors during group teaching activities.

Because group teaching is a common form of learning for young children, the response time of 4~6 year olds gradually shortens with age, of which 4~5 years old is the period of rapid development of sustained attention [16]. Therefore, this study will focus on the distracting behaviors of 4 to 5-year-old children in group teaching activities.

3. MATERIALS AND METHODS

3.1. Subjects

In this study, 50 4-5-year-old preschoolers in a kindergarten in T city were divided into two groups by pre-testing, and then nine children were randomly selected from each of the two groups as the experimental group and the control group. Among them, the children in the experimental group have sufficient shadow experience and have interacted with shadows; while the children in the control group have little experience related to shadows. Sampling will be conducted by drawing lots, where the names of the children in the experimental and control groups will be written on paper and placed separately in an opaque box, which will be drawn by the main test to determine the two groups. In the experiment, the researcher conducted shadowing group teaching activities with nine children while three recorders recorded the distracting behaviors of the children and the video camera was synchronized. The data were collected and analyzed to draw conclusions.

3.2. Methodology

3.2.1. Young Children's Shadow Experience Questionnaire

This study used a self-administered Young Children's Shadow Experience Questionnaire to measure young children's experiences about shadows. The scale consisted of a total of 6 entries. Children who answered a question were scored 1 point, and those who scored greater than or equal to 5 points were defined as having shadow experience, while other children were defined as having no shadow experience.

3.2.2. Operational Definition of Distracting Behavior

Table 1. Operational Definition of Distracting Behavior

1. Daze
2. Playing with corners , buttons, zippers of a garment, etc.
3. Play with teaching aids such as pens and paper
4. Sudden focus on others unrelated to the current activity (e.g., caretakers, recorders, etc.)
5. Speaking with others not related to the task of the activity, humming in a low voice
6. Drawing other content to avoid doing active tasks (e.g., drawing shadows)
7. Raise your hand to answer a question but the answer is irrelevant

3.2.3. Attention Level Observation Recording Form

At the time of administering the test, the experimental and control groups were shadowed in a group teaching activity, and the full-time distance recording method was used, in which distracting behaviors were recorded in one-minute increments by six recorders, three in each group, for each of the two groups of subjects. There were a total of 20 recording points for each observation because middle-grade educational activities typically do not exceed 20 minutes. If the subjects did not show any distracting behaviors throughout the one-minute period, the researcher did not mark the recording table; if they showed distracting behaviors, the number of distracting behaviors was marked in the corresponding place on the recording table. If the subject showed any distracting behavior other than those listed in the table, which was difficult for the recorder to determine whether it was a distraction or not, the recorder made a quick note of it, and then discussed it with the researcher at the end of the day's intervention to determine its attribution.

3.3. Statistical Processing

In this study, the distracting behaviors of the children were recorded by uniformly instructed recorders and the data collected were subjected to independent sample t-test using SPSS 22.0.

4. RESULTS

Table 2. t-test analysis results (plain format)

analysis term	term (in a mathematical formula)	sample size	average value	(statistics) standard deviation	mean difference	Difference 95% CI	t	df	p
Number of distracting behaviors	1.0	9	1.33	1.94	-1.33	-3.677 ~ 1.010	-	16.0000	0.245
	2.0	9	2.67	2.69					
	(grand) total	18	2.00	2.38					
* p<0.05 ** p<0.01									

The statistical results from differential analysis of young children's distracting behaviors at different levels of shadowing experience show that all the samples from different groups do not show significance ($p>0.05$) for the number of distracting behaviors, which means that all the samples from different groups show consistency and no difference for the number of distracting behaviors. In conclusion, it can be seen that the samples of different groups do not show significant differences in the number of distracting behaviors. Therefore, there is no significant effect of whether or not young children have shadow life experiences on inhibiting distracting behaviors.

5. DISCUSSION

This experimentally based study examines the relationship between young children's life experiences and distracting behaviors.

From the results of the data, it can be seen that whether young children have life experience or not does not have a significant effect on inhibiting distracting behaviors. Although previous studies have not directly explored the relationship between life experience and distracting behavior, many scholars have explored both aspects of young children's life experience and attention problems from multiple perspectives. Young children's personality, teacher's role, and television exposure all have an effect on distraction [4-6]. In addition, life experiences are valuable for all aspects of young children's development, such as reading, playing, and music. However, few studies have been conducted on the

relationship between the two, and the cognitive load theory and the attentional resource limitation theory have different explanations for this issue.

This experiment was not able to test the cognitive load theory and the attentional resource limitation theory, nor did it test the hypothesis that children's pre-existing life experiences would inhibit distracting behaviors during group teaching activities.

However, the sample size of this study is small and the experimental results produced may have errors. Therefore, the study could have been investigated in more depth.

In summary, this study provides new ideas for analyzing the causes of distracting behaviors in young children, and more subjects can be investigated to obtain more significant data.

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