

EFFECTS OF COGNITIVE APPRENTICESHIP APPROACH AND SELF EFFICACY TRAINING ON PUPILS' CREATIVE WRITING SKILLS

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Abstract

Writing is one of the productive skills which learners have difficulty in acquiring. This study sought to ascertain the effects of Cognitive Apprenticeship Approach (CAA) and Self-Efficacy Training on pupils' creative writing skills. A pre-test, post-test, versus control group quasi experimental design was adopted. The population comprised 345,600 senior primary school pupils from the six education zones in Imo State of Nigeria. The sample consisted of 136 primary five pupils from four co-educational government owed schools in the area randomly assigned to treatment groups and control group. The Creative Writing Test (CWT) was the instruments, used for the study. The instrument was duly validated and a reliability coefficient of .71 was established. Data obtained were analysed using mean, standard deviation and ANCOVA statistical tools. The main finding of the study was that cognitive apprenticeship approach and self-efficacy training enhanced the creative skills of pupils. Recommendations made include: teachers should accept and enshrine cognitive apprenticeship in school curriculum as a method of instruction to boost learners' creative writing skills; educators should create more awareness among teachers, experts and other significant persons on the attributes and implementation of self-efficacy training in the classroom; seminars, workshops.

Introduction

Creativity is a psychological construct that many Nigerian schools do not pay much attention to. Creativity is the ability to come up with new ideas that are surprising yet intelligible, and also valuable in some way (Barbot, Tan, Randi, Santa-Donato, and Grigorenko, 2012). Slavin cited in Agulanna and Nwachukwu (2014) describes the creative person as having the tendency to produce new forms, solve problems in unique ways and who views objects

and circumstances in unconventional ways. It is necessary for the overall and sustainable advancement of any nation.

Regrettably, when school children exhibit creative tendencies they are hushed and treated as meddlers. This neglect is probably responsible for the difficulty experienced by pupils and students whenever required to express themselves in writing. As noted by Sternberg in Kaufman & Kaufman (2009), “creativity has been relatively little studied in psychology, creative writing even less so” (xv). Writing is one of the language skills necessary for effective and total communication and entails one putting ones thoughts and imaginations on paper in an organized way. Creative writing involves being divergent in thought and writing. Creative writing means putting ones ideas and feelings about a particular topic on paper by using ones imagination freely (Oral, 2012).

Creative writing exposes ones strength and weakness, ignorance or intelligence and clearly shows ones line of thought if well written or conceals ones thought if not well expressed. Spool (2011) writing on the importance of creative writing said that writers learn and retain information best when they write it down. It’s not just about recording the information for later reference. Writing it down helps one to remember, and perhaps process and analyse the information that is being discussed. He explained that some people learn by taking copious notes.

Creative writing improves the cognitive and communicative skills of children (Tok, & Anil, 2015). It gives pupils the chance to free their imagination and use their linguistic capabilities to go deeper and further than they can do in oral expression. They express more personal thoughts and mental images. Everett (2005) indicates that a further role for creative writing in language learning is that it can provide alternative ways of expressing and demonstrating learning. Raimes cited in Tok, and Kandemir (2015) states that creative writing reinforces the grammatical structures and vocabulary of the language that they are taught. Also, when students engage in creative writing, they have a chance to be adventurous and become better involved with the language.

In addition, Ciotti (2016) believes that expressive writing has therapeutic values having been linked to improved mood, well-being, and reduced stress levels for those who do it regularly. In both arts and science like mathematics, creative writing has been shown to help people communicate highly complex ideas more effectively (Column, 2014). Creative writing has an important contribution to the development of other skills and also becomes a tool to express person’s feelings, thoughts and information.

In spite of these benefits of creative writing, it is a well-known fact that Nigerian children are backward in creative writing. Some normal children who speak English Language very well cannot put down on paper what they speak. Affirming the above statement, Misunderstood Minds (2015) observes that many children education has been devastated due to difficulties in writing. They observed that children who fail to develop certain basic skills in writing will be unable to write with speed and fluency required to excel. Tok, and Kandemir (2015) observed that many of these students learn to camouflage their lack of writing skills, so it is often difficult for teachers to identify their weaknesses until students hand in papers or take examinations when writing deficiencies are obvious.

It is also a common complaint that even at the higher levels of education many students are incapable of expressing themselves in a clear, correct and comprehensible manner in writing. Many undergraduates cannot comfortably write their projects hence they engage the services of mercenaries to do the writing for them. Worse still, many cannot construct a good letter whether formal or informal letters. The situation is alarming and calls for urgent intervention.

Students' problems in creative writing could be attributed to a variety of dynamics. One of the causes might be the complex nature of creative writing itself. Byrne (1988) believes that certain psychological, linguistic and cognitive factors make creative writing a complex and difficult means of expression for most people in both their native and second language. Students have problems of not only having difficulty of finding the right words and using the correct grammar but also about the difficulty of finding and expressing ideas.

The problem could also be blamed on the way children are taught at the lower levels of education especially primary school level. Primary school level being the basis of education in Nigeria requires the best teachers, instructional approaches, and best academic environment. Akimbowale (2015) believes that most of the primary level teachers are very poor models in creative writing. Some of the bad habits in creative writing learnt at the primary level are reinforced at the secondary level. Akimbowale (2015) therefore suggests that at these crucial levels teaching of creative writing in English language be handled by competent teachers so that pupils will have more interest in the composition; become good writers; have high scores in their courses; reduce the errors in their homework; and create more coherent paragraphs.

The above reiterates the need for proper exposure of school children to basic skills of creative writing. Farmer, Yesner, Zemelman and Elkins (1985)

explain that people experience difficulty in creative writing because they perceive the creative process as magical and that it as a work that could be done all at once or as a kind of flash of inspiration. As a result, learners may often believe that they do not have full control over the creative process. Recent research on creativity, however, has evidenced that all humans use creative thinking processes all the time in their daily lives, and thus have shown that these processes are not as mysterious as they seem (Column, 2014). In other words, creative writing is a process and not one step job. Loannou-Georgiou (2015), asserts that the creative writing process is better described as many small creative moments of insight rather than one “big bang” (158). In other words, the knowledge of the process of creative writing would make it clear that creativity comes from ordinary thinking processes and help eliminate or reduce the difficulty involved in it.

How then can creative writing process be enhanced in learners in our schools? Educators have begun to uncover concrete practices that can help maximize original thinking. Teaching creative writing to children in a country like Nigeria has a lot of challenges to both teachers and learners. The main challenge is teaching children English language grammar in such a way that they can differentiate it from their mother tongue. Another challenge hinges on teachers’ competence in speaking and writing of English Language (Akimbowale 2015). Yet another challenge as noted by the researchers is the teacher’s knowledge and teaching of creative writing skills to children in such a way that they can engage in divergent thinking. This depends on teachers’ ability to give children interesting and captivating topics that will help them learn about themselves as well as their environment.

Creative writing involves many requirements that students must put into practice to avoid difficulties and complications at the moment of writing their essays or report papers. The effectiveness of the methods and techniques that teachers apply in their English Composition courses is doubtful. Some methods used are useful with some students but fail with others (Forgeard, Kaufman, and Kaufman 2012). So teachers must take into account other strategies if they want their students to develop effective creative writing skills.

According to Column (2014), in creative writing, one must shift from oneself to writing with an awareness of others. Also, there is need to move from monologue to engaging in a dialogue with audience. Dennen, and Burner, (2012) state that a good route to develop self-regulatory capability and creative awareness and skills is through the process of cognitive apprenticeship. That goes to say that cognitive apprenticeship approach could be effective in teaching creative writing. In the same vein, Brown, Collins, and

Duguid, (1989) explains that cognitive apprenticeship is particularly effective when teaching complex, cognitive skills such as reading comprehension, essay writing, and mathematical problem solving. Continuing, Brown et al, explained that the best way to teach creative writing to children is for the teacher to reveal and model his/her creativity and show learners what it means to be creative. In addition, the teacher can help learners articulate and construct their own meaning of creativity in the context of what is being taught.

This could be done by the introduction of instructional approaches such as cognitive apprenticeship and training in self-efficacy. Cognitive apprenticeship as an instructional approach advocates that experts and other significant persons be invited to display their expertise in the classroom. Also, it advocates that teachers, experts and other significant persons verbalize their thought processes while teaching to enable learners learn and appreciate the thinking and reasoning patterns involved in performing some tasks. For instance while teaching creative writing, the teacher or expert will model and coach pupils on the rules and steps involved in creative writing and simultaneously verbalizing the thought processes involved in doing so by talking aloud so that pupils will associate 'doing with thinking'. There is also need for the teacher/expert to scaffold pupils when necessary. The teacher should equally know when to stop giving support or clue (fading) and pupils to articulate, explore and perform a given task.

Self-efficacy is the belief students have on their ability to perform a given task. This belief usually comes from past successes or what Bandura refers to as vicarious learning. Vicarious learning is the motivation that comes from observing other people's successes and subsequent rewards. Self-efficacy is task specific; meaning that a student may have high self-efficacy in an area and not have it in other areas. Bandura cited in Artino (2012) opines that unless people are encouraged to believe in their ability to produce an effect, they may have little or no incentive or inner capability to act. In keeping with this, Ceylan (2015) believes strongly that creative writers must cultivate a strong sense of self-efficacy and confidence in their ability to write. If they do not have such confidence in themselves, their aspirations may be crushed by negative evaluations from peers, teachers, and critics.

The main purpose of the study was to ascertain the effects of CAA and self-efficacy training SET on creative writing skills of pupils in the six education zones of Imo State of Nigeria. The study was delimited to investigating the effect of CAA and SET on the creative writing skills of Primary 5 pupils. The training focused on teaching pupils how to reason, articulate and put down their ideas.

The questions below were formulated to guide the study:

1. What differences exist in the adjusted mean scores of pupils taught with cognitive apprenticeship instruction and that of those not taught by it at post-test and follow-up?
2. What differences exist in the adjusted mean scores of pupils exposed to self-efficacy training and that of those not taught by it at post-test and follow-up?
3. What differences exist in the adjusted mean scores of pupils exposed to self-efficacy instruction and cognitive apprenticeship approach and that of those not taught by it at post-test and follow-up?

It was hypothesised that there is no significant difference between the creative writing skills of students in the experimental groups and those in control at post-test.

Method

The study adopted a pre-test, post-test, versus control group quasi experimental design. The area of study was Imo State, Nigeria. The population comprised of about 345,600 senior primary school pupils in the area. The sample for the study consisted of 136 primary five pupils from four co-educational government-owned schools in the area. The four schools were randomly assigned to treatment groups and control group. The researchers-made Creative Writing Test (CWT) was used as instrument for the study. The instrument was duly validated. A reliability coefficient of .71 was established for CWT. The researchers taught the four intact mix-ability classes because of the technicalities involved in the use of CAA and Self-Efficacy in teaching and learning. Experts in creative writing were engaged regularly as the approach demands. The experiment lasted for one whole term. The three experimental groups were exposed to CAA only, Self-Efficacy Training only and a combination of CAA and Self-Efficacy Training respectively. The control group was exposed to the usual lecture method. The experiment was in two phases: pre-test, post-test phases. Data collected were analysed using mean, standard deviation and ANCOVA statistical tools.

Results

Table 1: Mean and standard deviation of CAA and control groups

Method	Mean	Std. Deviation	N
CAA	66.0588	11.21671	34
Control	48.2353	9.14549	34
Total			68

The results of the study showed that CAA has mean score of 66.05 and a standard deviation of 11.22, Control group has 48.24 and a standard deviation of 9.15. This shows that students in CAA group scored higher in creative writing than those in the control group.

Table 2: Mean and standard deviation of Self-Efficacy Training and control groups

Method	Mean	Std. Deviation	N
SET	65.1471	9.67074	34
Control	48.2353	9.14549	34
Total			64

The results of the study showed that the self-efficacy group has mean score of 65.15 and a standard deviation of 9.67 while the Control group has 48.24 and a standard deviation of 9.15. This shows that students in SET group scored higher in creative writing than those in control group.

Table 3: Mean and standard deviation of combined CAA+SET and control groups

Method	Mean	Std. Deviation	N
CAA+SET	70.9118	12.08648	34
Control	48.2353	9.14549	34
Total			68

The results of the study showed that combined CAA+SET has mean score of 70.91 and a standard deviation of 12.09, Control group has 48.24 and

a standard deviation of 9.15. This shows that students in the CAA+SET group scored higher in creative writing than those in control group.

Table 4: Analysis of Covariance (ANCOVA) of CAA+SET and control groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	10414.961 ^a	4	2603.740	23.693	.000
Intercept	46007.697	1	46007.697	418.659	.000
PreTest	423.020	1	423.020	3.849	.052
Method	9866.403	3	3288.801	29.927	.000
Error	14395.980	131	109.893		
Total	557562.000	136			
Corrected Total	24810.941	135			

The results in table 4 show that F-cal is 29.927 and is greater than 0.000. This implies that there is a significant difference between the students taught in the experimental groups and students in the control group.

Discussion

The results of study show that CAA improved the creative writing skills of subjects at post-test. The result stated above is expected in that CAA is an approach that is pragmatic and learner friendly. Its numerous teaching methods, which are valuable for training in creativity, could be a contributory factor to its efficacy. The effectiveness could be attributed to contextualization of learning in the classroom, its collaborative nature, the presence of experts and other significant persons in the classroom. Above all, the teacher and other significant fellows tried to make the cognitive processes involved in writing visible in the classroom. The result confirms the previous findings about the effectiveness of cognitive apprenticeship on writing as reported by Duncan (1996) that cognitive apprenticeship instructional methods were significantly more effective than traditional methods in the area of writing skills at the college level. Dennen and Burner (2012) summarized the various researches on cognitive apprenticeship in their article by saying that empirical studies have confirmed much of what cognitive apprenticeship theories have suggested by the following: (1) that the cognitive apprenticeship model is an accurate description of how learning

occurs naturally as part of everyday life and social interactions. (2) That the instructional strategies that have been extracted from these observations of everyday life can be designed into more formal learning contexts with positive effect.

Also, this finding corresponds with the finding of another research study on cognitive apprenticeship by Chiu and Liu (2002) in which they focused on the process of constructing mental models in a cognitive apprenticeship context. 10th grade students, who lacked knowledge of the nature of chemical equilibrium, were randomly assigned in a control group (non-CA group) and a treatment group (CA group). The researcher developed hands-on activities to contain the main textures of cognitive apprenticeship, such as modelling, coaching, scaffolding, articulation, reflection, and exploration. The result showed that the cognitive apprenticeship group gained better understanding of chemical equilibrium.

Furthermore, the results indicate that self-efficacy trainings enhanced creative writing of subjects. It means that with training in self-efficacy, the creative writing skills of learners in Imo State, Nigeria will be greatly improved. The improvement in the creative writing skills of subjects may have been because of the unique characteristics of self-efficacy such self-confidence, mastery experience, social persuasion, vicarious learning among others (Bandura cited in Holmes, 2016). The finding corroborates with findings from a study by Pajares (2003) on self-efficacy beliefs, motivation, and achievement in writing in which he examined the contribution made by the self-efficacy components to the study of writing in academic settings. The findings indicate that students' self-efficacy improved their writing motivation and other academic outcomes.

The implications of the study are that learner's creative writing problems would be a thing of the past if cognitive apprenticeship is properly implemented in the classroom. The school system will be enriched with one effective instructional approach. The nation will have creative minds that will bring about sustainable development.

Conclusion

The researchers have attempted to discuss some of the creativity and writing problems of learners in Nigeria. They had the hunch that cognitive apprenticeship approach could help ameliorate some if not all the creative writing problems hence they carried out this study. The findings of the study revealed that cognitive apprenticeship approach improved tremendously the creative writing skills of the subjects used for the study. The implication being

that cognitive apprenticeship approach can help solve the writing problems of learners.

Recommendations

The following recommendations were proffered from the study:

1. Since cognitive apprenticeship has been proven to be effective in solving learners' writing problems as well as boost their creativity skills, teachers should accept and enshrine it in school curriculum as a method of instruction.
2. Awareness should be create more among teachers, experts and other significant persons on the attributes and implementation of the approach in the classroom.
3. Seminars, workshops and conferences have to be organized by School Management Boards to educate teachers on the use of the approach.
4. Learners, teachers and school management should be encouraged to look beyond the challenges of implementing CAA in the classroom and focus on its immense benefits so as to be properly motivated to embrace the approach.
5. Cognitive apprenticeship approach requires enriched classroom and school environment; government and non-governmental organizations (NGOs) should partner with school management to ensure that the needed infrastructures are provided in schools.
6. There should be proper supervision to ensure strict compliance to the demands of cognitive apprenticeship approach etc.

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