

Development of Critical Thinking Abilities: A Challenge to Social Studies Teachers

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Abstract

This paper examines issues relating to the concept of critical thinking, how to develop critical thinking abilities in students using Individualistic and Cooperative Learning Strategies to achieve powerful and effective Social Studies teaching. The study adopted the pre-test control group quasi-experimental design. A sample of 180 Junior Secondary School Class two (JSSII) students drawn from three secondary schools in Ekiti/West, Ikere and Ido-Osi Local Government Areas of Ekiti State Nigeria were selected for the study using stratified random sampling technique. Data were collected with the use of an instrument titled 'Social Studies Achievement Test (SSAT)'. The instrument was validated and had a reliability coefficient of 0.84. Two hypotheses were tested for the study and Analysis of Covariance (ANCOVA) was used to test the hypotheses. All the hypotheses were tested at 0.05 level of significance; Scheffe Post-Hoc Analysis were also applied. The results show that there is significant difference in the critical thinking and decision-making ability levels between the experimental and control groups, however, subjects exposed to cooperative learning strategy had the highest adjusted mean scores. The paper therefore, recommended that Social Studies teachers should employ the use of Cooperative learning strategy in their teaching to enhance the development of critical thinking and decision-making abilities in learners.

1. Introduction

The development of critical thinking skills among youths is very important most especially in a country such as Nigeria that is facing challenges in developing appropriate ingredients essential for National development. Critical thinking means the process in which students take initiative to question what is read, heard or observed, challenging the underlying assumptions of what to question, analyse in a reasoned and unbiased way as well as remaining open to new ideas and perspectives. This involves changing ones position on issues when convinced by the logic of another position reflecting constantly on ones learning in order to find patterns, linkages, or related elements that could be applied to other problems or issues. In this paper, 'analytical thinking' may seem to convey accurate information

on the concept of critical thinking. The question is: "can a society that assumes responsible citizen involvement in decision-making survive if its members do not or cannot participate in such decision making?" Decision making being the processes used to monitor and influence public and civic life by working with others, clearly articulating ideas and interests, building coalitions, seeking consensus, negotiating compromise, and managing conflicts. To this end, critical analysis of issues is required among student to be able to arrive at a logical conclusion for making the right decisions at appropriate time. This in turn is likely to enhance meaningful and productive participation in societal issues for national development.

The development of critical thinking skills seem to be an important area which Social Studies as a school discipline is expected to address most especially in terms of value clarifications and orientations essential in a pluralistic society such as Nigeria. 'Critical' which has certain negative connotation does not apply in the issues raised in this paper, rather, analytical thinking may seem to convey the ideas being expressed more accurately. It is believed that students who can reason critically from a solid base of Social Studies knowledge are well prepared to participate as reasonable citizens in community affairs, ranging from family through neighbourhood and state to national as well as international community.

All over the world, it is immense civic responsibilities of all citizens to look at the world critically as members and strive to protect it. It has now become a daily occurrence to read in newspapers, hear and see through radio and television broadcasts evidence that our world has problems. For example, in many countries, Nigeria in particular, resources are not shared equitably or mismanaged; cases of corruption abounds; people are living in poverty; and generally, the world is embroiled in conflicts and in fear of one another. The effect of all these is felt globally because the integration through interdependence of commerce, politics, rapid technological changes and ubiquitous telecommunications has made the world to be a global village, hence, people migrate from one area to the other and this has transformed the world for better and worse. The implication of all these is that, the decisions that people make these days are more complex and have more far-reaching and interrelated

consequences. To this end, students need more than ever-before to understand their changing world and be well prepared with understandings, skills and dispositions necessary for participating in the activities of the world as caring, informed, critical and active citizens [2].

It has been observed that, Conventional Method which is a didactic approach is commonly used in most Nigerian schools [1]. This is an instructional method popular with teachers in which the teacher dominates the lesson, speaking most of the time but in which also students may be allowed to engage in little individual or independent activities by which they are not totally passive, sometimes seeking help from teacher/mates when and where necessary. This seems not to be appropriate for young adolescents who are physically and intellectually alert and ready to engage in various learning activities. Schuchat [16] had therefore call for rote-learning system to give way for more dynamic and pragmatic teaching strategies among which are Cooperative and Individualistic Learning Strategies being examined in this paper. Ella and Glenn [6] observes that, human problems and events relating to societal issues need to be addressed with much thinking, analyzing, synthesizing which should equally involve the application of value judgements and rational decisions making in solving problems. Mitchell, Reilly, Bramwell, Solomsky and Lilly [14], believes that this could only be achieved through critical thinking abilities which could enable learners to gather information from all senses, verbal or written expressions, reflections, observations, experiences, reasoning because it has its basis in intellectual criteria that go beyond subject-matter divisions. To them, these include: clarity, credibility, accuracy, precision, relevance, depth, breadth, logics, significance and fairness. Therefore, one can rightly conclude that the development of critical thinking abilities seem to be the appropriate means by which the quality of evidence on issues raised in the classroom could be analysed fairly and detect error, hypocrisy, manipulation, and bias.

In summary, Facione [7], sees critical thinking as habit of thought which pervade all the mores in society because it is a way of taking up problems of life and that men educated in it cannot be stampeded by stump orators; they are slow to believe and can hold things as possible or probable in all degrees without pain; they can wait for evidence with which assertions are made on one side or the other; they can resist appeals to their dearest prejudices and all kinds of cajolery; and education in the critical faculty is the only education of which can be truly said to make good citizens. Perhaps the above analyses of the concept of critical thinking seem to be one of the reasons why Paul & Linda [15] described critical thinking as consisting of mental processes of discernment analysis and evaluation which includes

possible processes of reflecting upon a tangible or intangible item in order to form a solid judgment that reconciles scientific evidence with common sense.

The process of critical thinking is seen as helping students to acquire information and evaluate it to reach a well justified conclusion or answer [4]. It is observed that part of critical thinking goes beyond informal logic but also includes assessment of beliefs and identification of prejudice, bias, propaganda, self-deception, distortion, misinformation, among others. Social Studies is likely to achieve its desired objectives if critical thinking ability skills are developed in students because this could assist them as pointed out by Hamby [9] to develop intellectual humility, intellectual empathy, intellectual integrity and fair mindedness. It is also likely to reduce the act of memorization and rote learning among students. All these appear to be relevant to effective teaching and learning of Social Studies.

Brink-Budgen [4], opines that the requirements essential for students to develop ability to think critically include an attitude to consider in a thoughtful way the problems and subjects that come within the range of one's experiences; some skills in applying those methods; persistent efforts to examine any belief or supposed form of knowledge in the light of the evidence that supports it and the further conclusions to which it tends; ability to recognize problems, find workable means for meeting those problems; to recognize instated assumptions and values; to comprehend and use language with accuracy, clarity and discrimination; to interpret data, appraise evidence and evaluate arguments; to recognize the existence (or non-existence) of logical relationships between prepositions; to draw warranted conclusions and generalizations at which one arrives; to reconstruct one's pattern of belief on the basis of wider experience and to render accurate judgments about specific things and qualities in everyday life. Damer [5] observes that critical thinking involves a set of cognitive skills, intellectual standards and traits of mind and also the disposition or intellectual commitment to use those structures to improve thinking and guide behaviour. It should be noted that any development of critical thinking must work to override our natural tendency to decide before having all the facts and this has being a great challenge for Social Studies teachers, most especially the issue of helping students learn how to be more effective in discussing issues of public policy, reaching decisions and defending the right of others to arrive at a point of view different from their own. In a study conducted by Hinderry [10] it was discovered that human thinking left to itself often leads to various forms of self-deception, individually and socially. Paul & Linda [15], equally observes that one may be a victim of self-delusion, ego-centricity or socio-centricity, or close-mindedness and that one's thinking may be unclear, inaccurate,

imprecise, irrelevant, narrow, shallow, illogical and trivial. Also, one may be intellectually arrogant, intellectually lazy, or intellectually hypocritical. These seem to be the ways by which human thinking can be flawed. However, with thorough supervision, the use of Cooperative and Individualistic Learning Strategies is likely to bring out acceptable results in students. Cooperative Learning Strategy is a process in which students work together in small groups to maximize their own and each other's learning while Individualistic Learning Strategy is a teaching-learning process in which learning occurs when the teacher teaches and the student works on the assignment given thereafter alone without the teacher or mates' assistance. The focus of this paper therefore is to examine how Cooperative and Individualistic Learning Strategies could be used to develop critical thinking abilities of students in Social Studies.

2. Purpose of the study

The purpose of this study is to determine the effect of Cooperative and Individualistic Learning Strategies on the development of students' critical thinking and decision-making abilities in Social Studies. It is also an attempt to develop students' ability through the study of societal issues and take appropriate decisions through critical analysis without unnecessary bias.

2.1. Hypotheses

The following hypotheses were formulated:

- i. There is no significant difference in the critical thinking ability levels between the experimental and control groups.
- ii. There is no significant difference in the decision-making ability levels between the experimental and control groups.

3. Results

Hypothesis 1: There is no significant difference in the critical thinking ability levels between the experimental and control groups.

Table 1. ANCOVA showing the critical thinking ability levels of subjects in experimental and control groups

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F_{cal}</i>	<i>F_{table}</i>
Corrected model	12780.373	3	4260.124	905.875	2.65
Covariate (pretest)	13.829	1	13.829	2.941	3.89
Group	12780.351	2	6390.175	1358.810	3.04
Error	827.688	176	4.703		
Corrected total	13608.061	179			
Total	205231.000	180			

$P < 0.05$

Table 1 showed that F_{cal} (1358.810) is greater than F_{table} (3.04) at 0.05 level of significance. The null hypothesis was rejected. It implies that there is significant difference in the critical thinking ability levels between the experimental and control groups. The result of Multiple Classification Analysis (MCA) showed with a grand mean of 32.63, students in the cooperative learning group had the highest adjusted mean score of 41.62 (32.63+8.99). This was closely followed by those exposed to individualistic learning strategy with an adjusted mean score of 34.90 (32.63+2.27) while the subjects in the conventional group had the least adjusted mean score of 21.36 (32.63+(-11.27)). Therefore, both cooperative and individualistic learning strategies are potent instructional strategies for enhancing better critical thinking ability levels of students.

Hypothesis 2: There is no significant difference in the decision making ability levels between the experimental and control groups.

Table 2. ANCOVA summary of decision making ability levels of subjects in experimental and control groups

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F_{cal}</i>	<i>F_{table}</i>
Corrected model	6439.105	3	2146.368	12.639	2.65
Covariate (pretest)	9.561	1	9.561	0.056	3.89
Group	6389.750	2	3194.875	18.813	3.04
Error	29889.222	176	169.825		
Corrected total	36328.328	179			
Total	216765.000	180			

$P < 0.05$

The null hypothesis was rejected ($F=18.813$, $p < 0.05$). It implies that there is significant difference in the decision making ability levels between the experimental and control groups. The result of Multiple Classification Analysis (MCA) further revealed that subjects exposed to cooperative learning strategy had the highest adjusted mean score of 37.61 (31.66+5.95) while those in the individualistic and conventional groups had adjusted mean scores of 33.94 (31.66+2.28) and 23.52

(31.66+(-8.14)) respectively. This implies that cooperative and individualistic learning approaches constitute veritable instructional strategies for affecting the decision making ability of students.

4. Discussion

The study revealed that there is significant difference in the critical thinking and decision-making ability levels of students in the experimental (Cooperative and Individualistic Learning Strategies) and control groups after treatment. This is in line with the position of Johnson and Johnson [12] on the effectiveness of cooperative learning strategy in enhancing students' academic performance and social relations in contrast to the traditional whole-class methods of teaching. They observed that, students become more engaged in tasks if they are members of a team and equally strive for mutual benefit so that all group members gain from each others' efforts. On the strength of the results of this study, the subjects differed significantly in their post-test achievement mean scores according to the learning strategy to which the groups were exposed. The cooperative learning strategy group had the highest adjusted mean score, followed by those exposed to individualistic learning strategy, while the subjects in the conventional method group had the least adjusted mean score. Therefore, both cooperative and individualistic learning strategies are potent instructional strategies for enhancing critical thinking and decision-making ability levels of students but the cooperative learning strategy is better. The differences observed between the experimental groups and the control group was statistically significant.

Development of critical thinking ability of students as posited by Gupta [8] is very important as this gives students opportunity of making decisions on what to believe or what to do in a reflective way. To achieve this, Kagan [13] recommended the use of cooperative learning strategy in the teaching and learning of Social Studies as is likely to give students the opportunity of giving due consideration to the evidence before them, the context of judgement, the relevant criteria for making that judgement well on issues being discussed in the classroom. Howard [11] is of the opinion that students who derive those characteristics from a solid base of Social Studies knowledge and skills should be well prepared to participate as responsible citizens in community affairs, ranging from family through neighbourhood, state to the nation as well as to the international community. This is because the goal of critical thinking is to evaluate in a reasoned and unbiased way what is read, hear or observed in order to judge its validity or worth. In a world constantly bombarded by new discoveries and ever-increasing

amounts of knowledge, the ability to think critically about new information and to reflect on what was learned from it is essential.

This in essence seem to be what Social Studies education should always address and indeed, knowing what is true and what is not or what to accept or reject has become a basic survival skill in any part of the world.

It is observed that the practice in Nigeria tend to aim at facts and concepts in the disciplines at the lowest cognitive levels, rather than development of values. This is against the opinion of Anderson & Soden [3] who observes that the ability to conduct reasoned argument to support opinions with non-spurious evidence, anticipate what evidence would support alternative opinions and weigh the quality of competing items of evidence are the key components of critical thinking. There can be no doubt about the importance of these skills to effective teaching of Social Studies contents meant for addressing societal issues and problems with a view to propound solutions.

5. Conclusion

Considering the results of this study, the following conclusions are drawn: Cooperative learning strategy has the potency of achieving the best performance of students in critical thinking and decision-making abilities in Social Studies. Students performed well in the individualistic learning strategy group but only that it was lower than that of the cooperative group. Therefore, cooperative and individualistic learning strategies are veritable tools for the development of critical thinking and decision-making abilities in Social Studies.

6. Recommendations

The following recommendations are made as a result of the findings of the study:

- Teachers should be encouraged to use cooperative learning strategy in the teaching of Social Studies contents.
- Appropriate stake-holders in the field should organise on-the-job training programmes for teachers on the essential features of cooperative learning strategy.
- Teachers need to assist their students to work together in a relaxed atmosphere, thereby getting along with others well and promoting the development of critical thinking and decision-making abilities.

7. References

- [1] Adewuya, S. A., (2002). "Principles and concept of Social Studies". Ado-Ekiti: Yemi Publishing Co. Ltd.
- [2] Anders, W., (2010). Engaging pedagogies in elementary Social Studies. USA National Council for Social Studies (NCSS).
- [3] Anderson, T. & Soden, R., (2001). Peer interaction and learning of critical thinking skills. <http://www.psychology.heacademy.ac.uk/doc/pdf>.
- [4] Brink-Budgen, R., (2008). Critical thinking. Published by Corvo. ISBN 0-9543255-3-2.
- [5] Damer, T.E., (2005). Attacking faculty reasoning. (5th ed). Wadsworth.
- [6] Ella, M. and Glenn, B., (2000). "Conflict resolution: Four steps worth taking". *Social Studies and Young Learner*. 12(3): 21—30.
- [7] Facione, P. (2007). Critical thinking: What it is and why it counts. *Informal Logic*. 20(1): 68—84.
- [8] Gupta, M., (2004). Enhancing student performance through cooperative learning in physical sciences: Assessment and evaluation. *Higher Education*; 29(1): 63—75.
- [9] Hamby, B. W., (2007). The philosophy of anything: Critical thinking in context. Dubuque Iowa: Kendell Hunt Publishing Company.
- [10] Hinderry, R. (2001). Indoctrination and self-deception or free and critical thought. www.indianaedu/safeschl. Florida: Learning Publications Inc.
- [11] Howard, J., (2001). "Graphic representations as tools for decision-making". *Social Education*, NCSS. 65(4): 220—223.
- [12] Johnson, D. W. & Johnson, R. T., (2009). Implementing cooperative learning in Social Studies classrooms: A conceptual framework and alternative approaches. In National Council for Social Studies (NCSS), USA.
- [13] Kagan, S., (2005). Kagan publishing & professionalism development. <http://www.kaganonline.com/index.html>.
- [14] Mitchell, S.; Reilly, R.; Bramwell, F.; Solomsky, A. & Lilly, F., (2004). Friendship and choosing group mates: Preferences for teacher selected vs. student-selected groupings in high school science classes. *Journal of Instructional Psychology*. 31(1): 20—32.
- [15] Paul, R. & Linda, C., (2008). The miniature guide to critical thinking concepts and tools. Dillon Beach: Foundation for Critical thinking Press.
- [16] Schuchat, D., (2005). Radio days in the classroom. USA: NCSS.