

EFFECTIVENESS OF SELF-REGULATED LEARNING PROGRAM, SELF-CONCEPT AND THEIR INTERACTION ON ACADEMIC ACHIEVEMENT OF GRADE XI LEARNERS

ABSTRACT

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ABSTRACT

In just a few decades, electronic networks have expanded beyond all expectations. Instant messaging via smart phones and computers of all sorts whizz round the world. Researchers and policy makers are strongly divided in their findings and conclusions as to the effects of possible persuasive changes on the minds and lives of children, particularly the gifted. Although electronic social media might have positive effects on learning, professional development, academic achievement, Psychological factors, research and policy-making, they might also encourage superficial rather than deep thought to affect children's intellect and personal relationships. The study is experimental in nature and construct implement of quantitative data to investigate the effects of wikis on academic achievement in reference to Self-concept. The investigator adopted treatment and conventional group method for investigate the effectiveness of treatment. The findings indicated that the students' academic achievement relation to Self-concept on wiki-space enabled learning is significantly related. The findings also showed that the e-course tools at issue facilitated students' interactions and Self-concept in a growing online discourse community.

Keywords: Effectiveness, Self-regulated Learning Program, Achievement, Self-concept and grade XI Learners.

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INTRODUCTION

Academic achievement is one of the most studied construct in the educational psychology field, and an important number of variables have been considered as real predictors. Academic achievement is directly and indirectly effected by cognitive (intelligence, cognition map), Psychological (social intelligence, motivation, interest and self-concept) and environmental factors (class-room environment, teaching-learning method, class room resources). All these factors may be more effective if new technology merged in Teaching-learning process.

This new generation of Web-based technology, known to Web developers as Web 2.0, has quickly gained widespread popularity by enabling millions of users worldwide to create content, tag photographs, share videos, write blogs, and make acquaintances through the Web on a daily basis. As a result of these technological advances in Web technology and the development of Web 2.0, the nature of online communication, socialization, and privacy has changed. Online social-networking services have been a feature of the internet, in one form or another, since the inception of the World Wide Web.

The space and way of imparting in teaching and learning to the learner has involved over a period of time. Various models of online education have been introduced from last eras the latest introduction is the use of Web 2.0 technologies to make learning more analytical, flexible, interactive, and collaborative for both the teacher and learners. Further, the relationship between usage of wikis and academic performance in reference to personality factors of students has been tested statistically.

Review of Literature

The studies in respect to **Science Academic Achievement related to Wiki-space/web** based tools in reference to **Self-concept** carried out on school included study by *M. M. Thaha. and Jayakumar, C. (2016)* study experimented on 216 school students on Self-learning classifier and e-learners and found that Self-learning classifier helps E-learners in better understanding of the concept.¹ Another one study carried out by *Madhvi a. and T. K. Anil (2015)* included survey on 400 secondary school students on self-concept academic achievement and found that self-concept positively affect academic achievement the of students.² *Reena, Yadav (2014)* who surveyed on 200 10+2 male students on creative thinking in reference to intelligence, self-concept and found that the creative thinking positively representative in reference to intelligence and self-concept of students.³ In mentioned studies *Murray, H., Katrina Barker. and Knijnik, Jorge (2013)* study surveyed on 94 high school and 36 out of 90 enrolled in under graduate course on influence of social networks on involvement with learning and education and examined that the participation of young end favor program had a positively sounds for development of social relationships, self-concept, motivation learning and education, and sense of purpose for learning.⁴ In another one study carried out by *Jaime, Rebekah, Long (2012)* included survey on students of 9th and 10th grade on dependency of online social networking and self-concept, depression, academic estimation and found that online social networking positively dependency relationship between weekly applicability of online social networking and depressive symptoms, unreceptiveness of gender.⁵ *Ummuhan, A. and Askar, P. (2012)* study surveyed on 92 students of elementary school for their learning on use of blog and wikis and found Students opinion for wiki very applicable perceived usefulness and self-efficacy variables of blog and wiki applications in educational courses.⁶

Objective of the Study

To study the effectiveness of Self-Regulated Learning Program, Self-concept and their interaction on Academic Achievement of grade XI learners by considering pre scores as co-variate.

Hypothesis of the Study

There is no significant effectiveness of Self-Regulated Learning Program, Self-concept and their interaction on Academic Achievement of grade XI learners by considering pre scores as co-variate.

Nature of study

The study envisioned to examine the academic use of wikis applications in reference of Self-concept among grade XI students. The nature of study is experimental in nature.

Sample of study

The sample size of the study comprised of 78 grade XI students selected through random sampling technique. There is 39 students in experimental group and 39 students in conventional group.

Tools of Study

The investigator adopted the two main tools. The details of tool sare giving below.

1. Biology Academic Achievement: The Biology Academic Achievement consisted by Investigator own self. Inventory consisted of 60 items and total marks of inventory are 120 marks.
2. Self-concept Questionnaire: To measures the Self-concept of grade XIth learners from science stream by Administrator, Self-concept Questionnaire (SCQ) developed by Dr.Rajkumar Saraswat was chosen.

Process of Data Collection

In data collection process, first of all investigator applied the Biology Academic Achievement Inventory on both experimental and conventional group for equal time duration. Investigator provided the treatment to among treatment group students for 30 days' time duration for selected biology concepts and other hand conventional method continue in their regular class activities. In last of treatment applied the post test of Biology Academic Achievement Inventory and Self-concept Questionnaire.

Data analysis

The investigator adopted the ANCOVA for data analysis in SPSS 20.0.

1.1.0 EFFECT OF TREATMENT SELF CONCEPTAND

THEIR INTRACTION ON ACEADEMIC ACHIEVEMENT

BY TAKING PRE ACEADEMIC ACHIEVEMENTAS CO-VARIATE

The Seventh objective was to study the Effect of Treatment, Self-concept and their interaction on Academic Achievement by taking Pre Academic achievement is taken as covariate. There were two levels of treatment namely, Wiki-space enabled Self-regulated Learning (WSRL) and Conventional method. On the basis of Self-concept, the participants were divided in to the two levels namely, Above average Self-concept and Below average Self-concept. Thus the data were analysed with the help of 2×2 Factorial Design ANCOVA where pre Academic Achievement was taken as covariate. The results are given in Table 1.1.

Table 1.1. Summary of 2×2 Factorial Design ANCOVA for Academic Achievement by taking Pre Academic Achievement as covariate.

N = 78

SOURCE OF VARIANCE	df	SS y.x	MSS y.x	F y.x
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Treatment (A)	1	1512.995	1512.995	10.650**
Self-concept (B)	1	1.595	1.595	.011
A×B	1	1023.099	1023.099	7.201**
Error	73	10371.191	142.071	
Total	78	290368.000		

**Sig at 0.01 level

1.1.1 Effect of Treatment on Academic Achievement by taken pre Academic Achievement as covariate

From the Table 1.1 can be observed that the F value for treatment is 10.650 which is significant at 0.01 with $df = 1/73$, when pre academic achievement is taken as covariate. It reflects that mean scores of Academic Achievement of students trained through WSRL program was found to be significantly superior to their counterpart, the Conventional Method Group when Pre Academic Achievement is considered as covariate. Thus, there was significant effect of Treatment on Academic Achievement of grade XIth learners. In this context, the null hypothesis that there is not significant effect of WSRL Program on Academic Achievement of grade XIth learners when Pre Academic Achievement is considered as covariate, is rejected. Further the mean score of Academic Achievement of students treated through WSRL pregame was found to be 72.05 which is significantly higher than those of Conventional Method Group whose mean score of Academic achievement was 48.92. From here it may be said that the WSRL program was found to be significantly superior to the Conventional Method when pre academic achievement is taken as covariate.

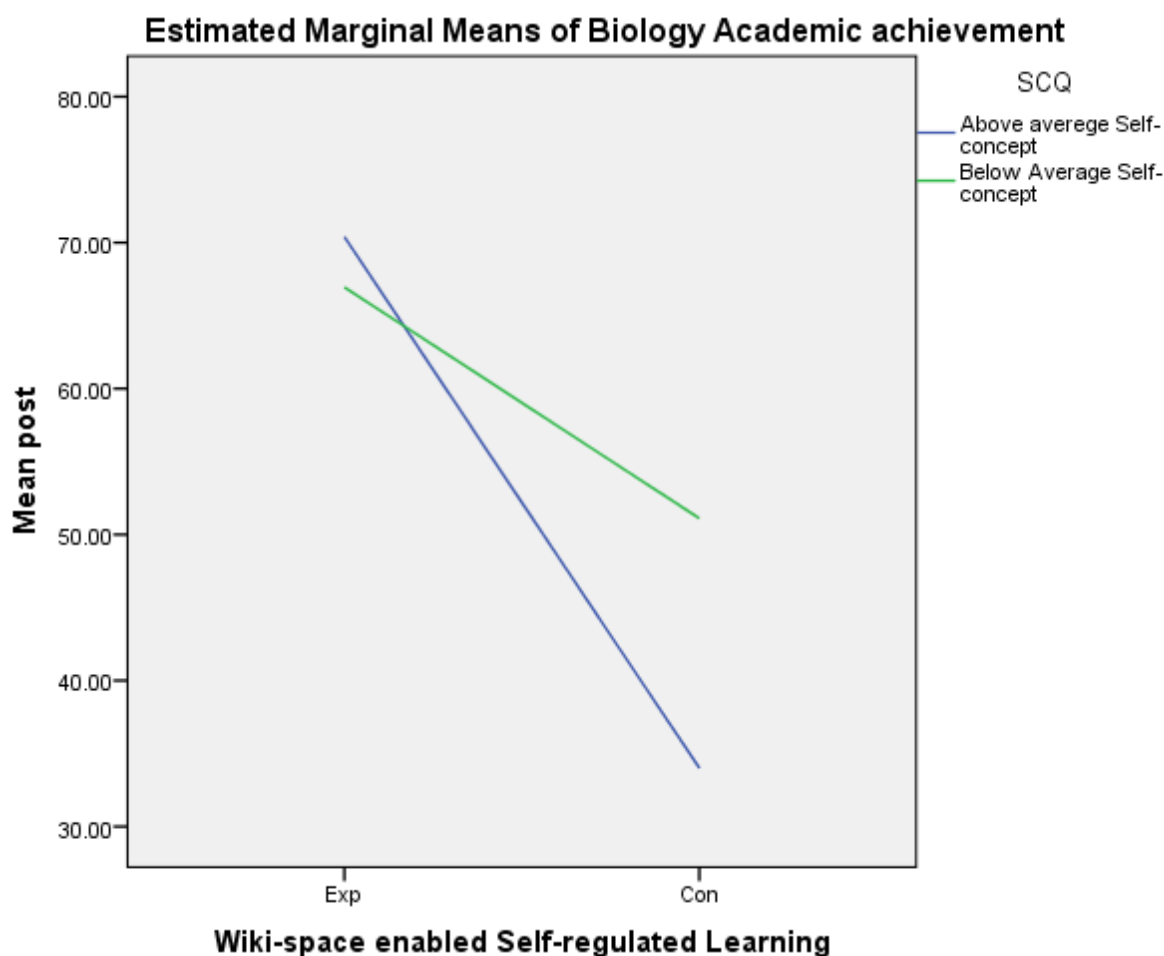
1.1.2 Effect of Self-concept on Academic Achievement by taking Pre Academic Achievement as covariate

The F - value for is .011 (vide Table 1.1) which is not significant. It indicates that the mean scores of Academic Achievement of learners belonging to Above Average Self-concept as well as Below Average Self-concept did not differ significantly. So there was no significant effect of Self-concept on Academic Achievement of grade XI learners when pre academic achievement is taken as covariate. In this light, the null hypothesis that there is no significant effect of Self-concept on Academic Achievement of learners when pre academic achievement is taken as covariate, is not rejected. It may therefore, be concluded that Academic Achievement was found to be independent of Self-concept, when pre academic achievement is taken as covariate.

1.1.3 Effect of interaction between Treatment and Self-concept on Academic Achievement by taking Pre Academic Achievement as covariate

The F value for interaction between Treatment and Self-concept is 7.201 which is significant. It indicates that there was significant effect of the resultant of interaction between Treatment and Self-concept on Academic Achievement of grade XIth learners when pre academic achievement is taken as covariate. In light of this, the null hypothesis that there is no significant effect of interaction between Treatment and Self-concept on Academic Achievement grade XIth learners when pre academic achievement is taken as covariate, is rejected. It may therefore be concluded that Academic

Achievement was found to be dependent of the interaction between treatment and Self-concept when pre academic achievement is taken as covariate



From graph 1.1 it can be seen that above average Self-concerned learners as well as below average Self-concerned learners treated through WSRL Program were found to possess Academic Achievement to almost the same level. Consequently the WSRL Program promoted the Academic Achievement amongst above average Self-concerned learners and below average Self-concerned learners to the same extent. Whereas in conventional group the academic achievement amongst above average Self-concerned learners and below average Self-concerned learners were found to exhibit Academic Achievement differentially. In this group above average Self-concerned learners were found to possess Academic Achievement higher than the below average Self-concerned learners.

Conclusion

The effectiveness of Self-regulated Learning Program, Self-concept and their interaction on Academic Achievement of grade XI learners is significantly related. The academic achievement of learners during wikis enabled environment in reference to Self-concept is positively related, so the academic achievement was found to be dependent on Self-concept.

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