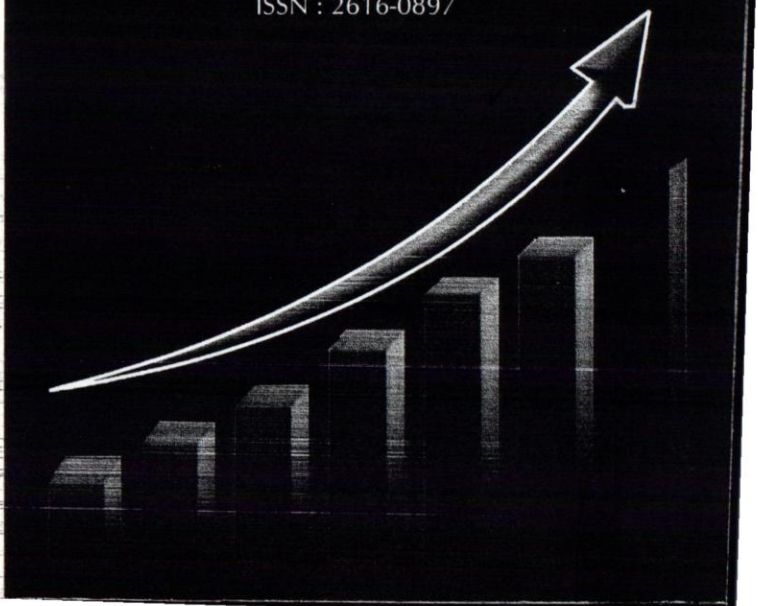
ASSEREN
Knowledge Through Research

# JOURNAL OF EVALUATION

VOLUME 5 NO 1 JULY, 2020
ISSN : 2616-0897



# EFFECT OF OVERT SOCIAL MODELLING THERAPY ON SELF-REGULATED LEARNING AMONG SECONDARY SCHOOL STUDENTS IN IFE CENTRAL LOCAL GOVERNMENT AREA OF OSUN STATE

[1]SHOBAYO, M. A. & [2]OJO, O. O.

[1]Primary Education Department,
Foreign links College of Education, Moro
shobayomabiodun@yahoo.com

[2]Department of Educational Foundations and Counselling
Obafemi Awolowo University,
Ile-Ife, Nigeria

**Abstract**

*The study investigated the effect of overt social modelling therapy (OSMT) on students' self-regulated learning among Secondary School Students of Ife Central Local Government of Area of Osun State. It examined the level of Self-Regulated Learning (SRL) and as well investigated the influence of gender and academic ability on the effectiveness of the therapy. The study adopted pre-test post-test control group quasi experimental research design. The population for the study consisted of all secondary school students in Ife Central Local Government. The sample comprised 120 students with low self-regulated learning selected using convenience sampling technique. Self-Regulated Learning Strategies Questionnaire (SRLSQ) was used to collect data for the study. The experimental group was exposed to Overt Social Modelling Therapy (OSMT), while control group was given no treatment. The OSMT was conducted for six sessions during which participants were exposed to OSMT processes. Data were analysed using percentages, independent t- test and One-Way ANOVA. The results showed that 54.0% of the students experienced low level of self-regulated learning. Also, overt social modelling therapy had significant effects on self-regulated learning of experimental group, ($t= 26.42$; $p< 0.05$). No significant gender difference on the effectiveness of OSMT to improving students' self-regulated learning ($t=1.87$; $P> 0.05$). However, there was a significant difference in the effectiveness of OSMT in improving students' self-regulated learning based on learners' academic abilities ($F= 68.99$, $P < 0.05$). The study concluded that the use of Overt Social Modelling Therapy (OSMT) was an effective intervention for improving self-regulated learning of secondary school students.*

**Keywords**: Overt Social Modelling Therapy (OSMT), Self-Regulated Learning, Gender, Academic Ability

## Introduction

Self-regulated learning is an important aspect of learning and achievement in academic contexts. Students who are self-regulating are much more likely to be successful in school, to learn more, and to achieve at higher levels. Several studies by scholars (Zimmerman, 2001; Salman, Esere, Omotosho., Abdullahi, amd Oniyangi, 2010; Cleary and Zimmerman, 2004; Weinstein, Husman, and Dierking., 2000; Graham and Harris, 2005; Cleary, Peter and Nelson, 2008; Bandura, 1997) have showed training programs (Self-Regulation Empowerment Programme) that school professionals can use to empower middle-school and high-school students to engage in more positive, self-directed and self-motivated learning. Thus, they proactively set goals, monitor performance processes and outcomes, evaluate their performance, and then make strategic adjustments to improve their performance.

Overt Social Modelling is one of the newly found measures that facilitate self-regulated learning in recent times and it has been the central focus of literatures. While this measures have been tested and proved in the advanced countries, counsellors in the less developed countries have not been saying much about it hence there seems to be dearth of empirical evidence of its efficacy in the less developing world and this necessitates this current study. Hattie Biggs and Purdie, 2006) stated that many attempts at modelling intervention programme (Overt Social modelling) for enhanced learning lack broadly based supportive data. According to Hattie Biggs and Purdie (2006), theory may have left ahead of the evidence. The need to test the relevance and effectiveness of overt social modelling as a tool for empowering secondary school students to become self-regulated learners in Nigeria motivated this work.

Self-regulated learning is a self-initiated action which involves goal setting and regulating one's efforts toward a goal, self-monitoring, time management, and physical and social environment regulation. Thus, students who self-regulate their learning actively and constructively engage in a process of generating meaning and adapt their thoughts, feelings, and actions as needed to affect their learning and motivation. There are many factors that affect academic performance. One of them is cognitive matters. Cognitive matters seem to have a significant effect on human behaviour, especially on learning. Increasingly, the idea has been reinforced by psychologists that learning is not a constant matter and however, the innate talent and intelligence as determinants of quality and quantity of human learning, there are other factors that along with these innate and non-acquirable prerequisites are effective and important in learning. Many students might not be able to regulate their learning and thus find it difficult to study effectively. Educators as well as professionally trained counsellors have adopted different strategies with little or no success. There is a need to explore Overt Social Modelling Therapy (OSMT), an approach which has found efficacious in solving different types of students' problem. The following research questions were raised to guide the study: What are the levels of self-regulated learning of secondary school students in Ife Central Local Government Area? Does Overt Social Modelling Therapy (OSMT) have any effect on self-regulated learning amongst secondary school students? Is there any influence of students' gender and academic ability on the effectiveness of the therapy?

The main objective of the study is to investigate the effect of overt social modelling therapy (OSMT) on self-regulated learning among secondary school students in Ife East Local Government Area of Osun State. However, the specific objectives of this study are to:

i. examine the level of self-regulated learning among secondary school students in Ife Central Local Government Area;
ii. determine the effect of overt social modelling therapy (OSMT) on self-regulated learning; and
iii. investigate the influence of gender and academic ability on the effectiveness of the therapy.

## Methodology

The study adopted pre-test and post-test control group quasi experimental design. The design has two groups: experimental and control groups. Both groups were given pre-test and post-test questionnaire on self-regulated learning strategies. Experimental group was exposed to treatment, while control group was not. Self-regulated learning is dependent variable of the study while overt social modelling therapy (OSMT) is the independent variable which serves as counselling package. The study population comprised secondary school students in Ife Central Local Government Area of Osun State. Sample for the study were selected from one secondary school in Ife Central Local Government. This was done in order to ensure the uniformity in academic experiences of the participants and the target group of the study was Senior Secondary School one (SSS1) students. They were chosen to prevent any pre-existing differences between the samples used in the experiment. Multistage sampling technique was employed in the selection process and three hundred students in senior secondary school were first selected, across all the classes through convenience sampling technique. They all participated in responding to the items in the instrument titled "Self-Regulated Learning Strategy Questionnaire (SRLSQ)".After scoring of the questionnaires, one hundred and twenty (120) students who later served as the sample size were those who scored low or poor during the first administration of the research instruments used for the study. They were randomly assigned into two groups of sixty (60) students in each group who were later used for post-test. . One of these groups was assigned as the experimental group, while the other served as a control group.

Research instrument used for this study was Self-Regulated Learning Strategies Questionnaires. The instrument (SRLSQ) was adapted from Zimmerman (2002), Ebulue (2006) and Omoteso (2011). The instrument consists of two (2) sections. Section "A" consisted of demographic variables such as gender, age, class and subject area, while section "B" consisted of 49 items that measure the intended construct. This scale was validated using Split-half and Cronbach's Alpha method of reliability. The instrument yielded a Split-half reliability coefficient of 0.71 and Cronbach's Alpha of 0.87. The minimum and maximum scores obtainable were 0 and 49 respectively. The score of the participants were added together to obtain total score on the Self-Regulated Learning Strategies (SRLS) and average mean score obtained was 23. Any respondent whose score was equal or greater than the mean score was considered having a good self-regulated learning while those whose scores fell below the mean scores were considered to possess a poor self-regulated learning. Those with poor SRL were selected for the research under experimental and control groups.

Data collection involved three (3) main stages. The first stage involved administration of instrument titled "Self-Regulated learning Strategies" (SRLS) provided data for the pre-test. After scoring of the questionnaires, one hundred and twenty students with low scores were selected into the experimental and control groups. That is, 60 students in each group who were later used for post-test. The second stage involved training in Overt Social Modelling covered a total of four weeks. The training was for the experimental group as the control group was given no treatment. The training session lasted between 60 minutes per session for six sessions and all the students completed the training programme. The experimental group was trained in all the Self-Regulated Learning Strategies through the processes of Overt Social Modelling. The training



package of the OSMT consisted of six sessions during which participants were exposed to the four OSMT processes of attention, retention, motor reproduction and reinforcement, and motivation. In each of the sessions the technique of Self-Regulated Learning was exemplified using appropriate films. Pre-test and post-test data were analysed using frequency counts and percentages, independent t- test and One-Way Analysis of variance (ANOVA).All hypotheses were tested at 0.05 alpha level of significance.

## Results

**Research Question One:** *What are the levels of self-regulated learning of secondary school students in Ife Central Local Government Area?*

To answer this question, Self-Regulated Learning Strategies (SRLS) was administered on a sample of 300 students. The students' responses were scored and the score of each student obtained was used to classify them into self-regulated learning levels. To avoid bias in categorization, each student's scores on the measure was summed up and the mean value was calculated to be 23. In this study SRLS score that ranged between 0-22 was classified as low level self-regulated learning, while a score of 23 was classified as average self-regulated learning level and a score above 23 was classified as high level self-regulated learning. Table 1 presents the sampled students' self-regulated learning levels.

**Table 1:** Level of Self-Regulated Learning of Secondary School Students in Ife Central

| Level of self-regulated learning | Frequency(f) | Percentage (%) |
|---|---|---|
| 0- 22 Low Level | 162 | 54.0 |
| 23 Average Level | 19 | 6.3 |
| 24- 49 High Level | 119 | 39.7 |
| Total | 300 | 100.0 |

Table 1 showed that 54.0% (162) of the sampled students had low level self-regulated learning, while 6.3% (19) were average and 39.7% (119) of the students had high level self-regulated learning.

**Hypothesis One:** *There is no significant effect of OSMT on self-regulated learning of secondary school students in Ife Central Local Government Area.*

To test this hypothesis, 120 students with the lowest score in the pre-treatment administration of SRLS were selected. These students were randomly assigned into experimental and control groups with each group consisting of 60 students. The SRLS was administered on the experimental and control groups after exposing the experimental group to the study treatment. The pre and post-treatment scores of the two groups were compared using independent t-test statistic. Table 2presents the results.

**Table 2:** Comparison of the Effectiveness of OSMT on Students' Self-Regulated Learning

| Groups | Data Collection Period | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-Test Score | | | | | | Post-Test Score | | | | | |
| | N | $\overline{X}$ | SD | df | t | p | N | $\overline{X}$ | SD | df | t | p |
| Experimental Group | 60 | 18.10 | 5.62 | 59 | 0.98 | >.05 | 60 | 42.62 | 4.17 | 59 | 26.42 | <.05 |
| Control Group | 60 | 18.02 | 5.68 | | | | 60 | 18.07 | 5.62 | | | |

The Table 2, using independent samples t-test showed that there was no significant difference in students' self-regulated learning scores between the experimental and control groups in the pre- OSMT test, $t_{(59)} = 0.98$, $p > .05$ (2-tailed), while there was significant difference in the post-OSMT self-regulated learning score, $t_{(59)} = 26.42$, $p < .05$ (2-tailed).Thus, there is a significant difference in the self-regulated learning of students exposed to OSMT and those not exposed to it. This is an indication that the use of OSMT is effective in improving students' self-regulated learning.

Further analysis using t-test was carried out to establish the direction of gain in the self-regulated learning of the students after the use of OSMT on the experimental group. The result is as presented in Table 3.

**Table 3:** `Mean Scores of Pre and Post Self-Regulated Learning of the Experimental and Control Groups

| Group | $\overline{X}$ | SD | df | t | p |
|---|---|---|---|---|---|
| Experimental Pre-Test | 18.10 | 5.62 | 59 | 26.42 | < .05 |
| Experimental Post-Test | 42.62 | 4.17 | | | |
| Control Pre-Test | 18.07 | 5.68 | 59 | 1.76 | > .05 |
| Control Post-Test | 18.02 | 5.62 | | | |

The result of further analysis as presented in Table 3 indicated that while the experimental group mean ($X$=18.10, $SD$ = 5.620) at pre-test and (= 42.62, $SD$ = 4.17) at post-test showed significant gain in their performance, $t_{(59)}$= 26.42, $p < .05$, the control group (=18.07, $SD$ = 5.68) at pre-test and (= 18.02, $SD$ = 5.62) at post-test showed insignificant gain, $t_{(59)} = 1.76, p > .05$. This result, thus, implies that the wide significant gain in the performance of the experimental group is not by chance but an indication of the effectiveness of the use OSMT to improve students' self-regulated learning.

**Hypothesis Two:** *There is no significant gender difference on the effectiveness of OSMT to improve students' self-regulated learning*

To test this hypothesis, the experimental group students' self-regulated learning scores were used to determine the effectiveness of OSMT in improving self-regulated learning. Students' gender and OSMT effectiveness was subjected to yield independent t-test value upon which



the influence of gender on the effectiveness of OSMT was determined. The results are presented in Table 4

**Table 4:** Gender difference on the effectiveness of Overt Social Modelling Therapy on Self-Regulated Learning

| GENDER | N | Mean ($\overline{X}$) | Std. Deviation (SD) | df | t | p |
|---|---|---|---|---|---|---|
| Male | 30 | 41.63 | 4.32 | 58 | 1.87 | >.05 |
| Female | 30 | 43.60 | 3.82 | | | |

Table 4 showed the male and female mean values of 41.63 and 43.60 ($X$=41.63 and 43.60) standard deviation 4.32 and 3.82 (SD = 4.32 and 3.82) respectively. Gender difference on the effectiveness of OSMT was not significant on both male and female students. The obtained t-test value ($t_{(30)}$ = 1.87, P >.05) is an indication that the influence of sex on the effectiveness of OSMT was significant.

**Hypothesis Three:** *There is no significant difference on the effectiveness of OSMT on students' self-regulated learning based on students' academic ability.*

In testing this hypothesis, students were distributed into ability groups using their schools first and second term grades in Mathematics and English Language examinations. Students' grades were assigned points that ranged between 1 and 10 for grades between "A and F" respectively. Student grade points in both subjects were then added to obtain an academic ability score for each student in the study. To avoid bias in the categorization of student's scores, the measure were summed up and the mean value was calculated to be 11.20 ($_{=11.20)acceptable}$ The highest and lowest obtainable academic ability score in the study were 19 and 7 respectively. Thus, in this study students with academic ability score that ranged between 7 - 10 were categorized to have low academic ability while those with a score that ranged within 11 were of average academic ability and those whose score ranged between 12 -19 were of high academic ability. Academic ability categorization and OSMT effectiveness categorization was then cross-tabulated to yield ANOVA value upon which the difference of the effectiveness of OSMT on students' self-regulated learning based on students' academic ability is determined. The results are presented in Table 5, 6, and 7.

**Table 5:** Mean Score in the Academic Ability of Experimental Group

| | N | Minimum | Maximum | Mean ($\overline{X}$) | Std. Deviation (SD) |
|---|---|---|---|---|---|
| Abilities | 60 | 7.00 | 19.00 | 11.20 | 2.94 |

Table 5 shows the responses of 60 students on a test with a mean value of 11.00 ($\overline{X}$= 11.00) and standard deviation of 2.94 (SD = 2.94). Also, the maximum and minimum values obtained by the students are 19.00 and 7.00 respectively. To avoid bias in the categorization of each student's academic ability level, the mean value obtained was used to categorize students into academic abilities level. The results are presented in Table 6.

**Table 6:** Level of Academic Abilities of Students in the Experimental Group at the Post-Test Scores

| Abilities | N | Mean ($\overline{X}$) | Std. Deviation (SD) | Minimum | Maximum |
|---|---|---|---|---|---|
| Low Ability 7-10 | 26 | 8.73 | 1.00 | 7.00 | 10.00 |
| Average Ability 11 | 12 | 11.00 | .00 | 11.00 | 11.00 |
| High Ability12 Above | 22 | 14.22 | 2.43 | 12.00 | 19.00 |
| Total | 60 | 11.20 | 2.94 | 7.00 | 19.00 |

Table 6shows that the levels of academic abilities of students in experimental group included Low Ability (26) with a mean score of 8.73 ($\overline{X}$ = 8.73)and standard deviation of 1.00 (SD = 1.00). Average Ability (12) with a mean score of 11.00 ($\overline{X}$=11.00) and standard deviation of .00 (SD = .00). High Ability (22) with a mean score of 14.20 ($\overline{X}$=14.20) and standard deviation of 2.43 (SD = 2.43). The study also revealed the three levels of academic abilities as low, average and high level. From Table 6, it could be observed that OSMT was effective toward improving the self-regulated learning of 22 and 12 students in the high and average academic ability groups respectively while the effectiveness was 26 in the low academic ability group.

**Table 7:** Academic Ability on the Effectiveness of Overt Social Modelling Therapy on Self-Regulated Learning

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 360.621 | 2 | 180.310 | 68.988 | <.05 |
| Within Groups | 148.979 | 57 | 2.614 | | |
| Total | 509.600 | 59 | | | |

Table 7 showed sum of squares between groups and within groups as 360.621 and 148.979 respectively. The obtained ANOVA value (F=68.99, P<.05) is an indication that the influence of academic ability on the effectiveness of OSMT was significant. The results are presented below.

**Discussion of Findings**

The findings of the research question one revealed the level of self-regulated learning of senior secondary school students in Ife Central Local Government Area of Osun State. This study classified the level of self-regulated learning of students into three categories; low, average and high levels. Also the study found that majority of the sampled students experienced low level of self-regulated learning. However, the percentage of the students under this category (low level) were more than half of the total respondents when compared with those that had average and high levels of self-regulated learning. There is a tendency for students with low self-regulated learning to show little or no interest in any difficult classroom tasks which would lead to good academic performance. Having low self-regulated learning could be as a result of poor knowledge base of effective strategies and lack of understanding of how to select, evaluate, and adjust several strategies including self-regulated learning strategy when they are not working effectively. Also, low self-regulated learners may likely engage in risk-taking and unhealthy behaviour such as examination malpractices, teenage pregnancy, street boys, thuggery, truancy, peer victimization, substance use etc. This study



corroborate that of Tawana and Kristin (2010) who found that adolescents who do not regulate their emotions and behaviour are more likely to engage in risk-taking and unhealthy behaviours. He further explained that being able to suppress impulsive behaviour and to adjust behaviour as appropriate has been linked to positive outcomes for children and adolescents.

Moreover, finding of researchers such as Ebulue (2006) and Olayinka (1976) as reported by Omoteso (2011) shared the view that self-regulating learning is not encouraged in Nigeria today because of over dependence on pre-packaged course or learning. Curriculum for the students is devoid of personal and individual experiences. As a result of this, many students have learning difficulties which have frustrated them out of school. It now behoves the psychologists /counsellors to device an appropriate therapy/intervention programme capable of teaching learners to acquire self-regulating skills. In addition, school counsellors can work with teachers and students to increase students' use of effective learning strategies. By performing a more proactive leadership role in empowering students to become self-regulated learners, professional school counsellors will both motivate young people to more fully realize their academic potential and further the growth of the school counselling profession. . However, students need to believe in their personal ability to do well in their academics, self-confidence as well as self-belief in solving difficult learning tasks. According to Cobb (2003), who found that self-regulated learners approach educational tasks with confidence, diligence, and resourcefulness. They are aware when they have mastered a particular skill or set of skills and use appropriate strategies for attainment of goals they have yet to accomplish.

The results of the first hypothesis showed that there is a significant effect of Overt Social Modelling Therapy (OSMT) on self-regulated learning of students. From the findings, the mean score of the experimental subjects at post- OSMT test was significantly high when compared with the mean score at pre- OSMT test. This is an indication that the participants that were exposed to therapeutic techniques of overt social modelling therapy (OSMT) improved the frequency at which they self-regulated their learning. However, a number of factors could be responsible for the improvement in students' self-regulated learning. It could be due to the willingness of the subjects to self-regulate their learning as the therapist invited only the low self-regulated learners for the training programme. It could also be as a result of selection of appropriate film presentation like 8 scenes on how to regulate learning which involves the technique of goal setting, planning, attention control, application of learning strategies, self-motivation strategies, help seeking, self-monitoring and self-evaluation moreover, it could also be as a result of selection the 8 steps to monitoring cognitive processes that were presented to the subjects. There were also 7 steps on how to get good grades which included class attendance, punctuality and participation, note-taking, study schedule, organisation, personal schedule, stress reducer, memorisation technique. Other factors might involve giving the participants appropriate rationales and concepts, rules or strategies for using the techniques of OSMT properly.

Furthermore, the efficacy of overt social modelling therapy in this study may also be due to the models that were used. For instance, the model was highly skilled in enacting the behaviour; was likable or admirable; was friendly; was the same sex and age; and is rewarded immediately for the performance of a particular behaviour. The target behaviour was clearly demonstrated with very few unnecessary details and was presented from the least to the most difficult level of behaviour also several different models are used to perform the same

behaviour(s). The study also confirmed that the significant gain in the performance of the students' experimental group exposed to OSMT was not by chance but an indication of effectiveness of the use of OSMT. This finding supports the earlier findings by Cleary et. al., (2008) and Salman et.al, (2010) Glaser and Brunstein (2007) who found that self-regulated learning empowerment programme (SREP) is effective in improving academic performance and self-regulatory skill of students. This study suggests that the use of overt social modelling could assist students to achieve improved level of academic self-regulation or performance.

The results of the second hypothesis revealed that there is no gender difference on the effectiveness of OSMT to improve students' self-regulated learning. The finding corroborates that of Reeves and Stich (2010) who observed that there are no differences between males and females in SLR strategies (i.e. gender was not observed); Duncan et.al., (2007) stated that the potential benefits of self-regulation are the same regardless of gender or background; Yen, Konold, and McDermott, (2004) concluded that there were no variations across group by gender and/or ethnicity. However, the findings represent a departure from the results of studies such as Yukselturk and Bulut (2009), who established that the influence of gender in motivational beliefs, self-regulated learning components and programming achievement is significant. Lu, Yu, C-S and Liu, (2003) and Sierra and Wang (2002) established that gender related to SRL was significant.

The result of the third hypothesis showed that there was a significant difference on the effectiveness of Overt Social Modelling Therapy (OSMT) on students' self-regulated learning based on students' academic ability. However, the result indicated that OSMT is very effective in improving academic abilities as students exposed to OSMT improved better than those not exposed to OSMT. This finding suggests that if students can learn to use self-regulated learning strategies through overt social modelling intervention, it possible to improve their academic achievements. This finding support the viewed of Cobb (2003) who found that high achieving students make greater use of self-regulated learning strategies because self-regulated learners approach educational tasks with confidence, diligence, and resourcefulness. They are aware when they have mastered a particular skill or set of skills and use appropriate strategies for attainment of goals they have yet to accomplish. This study suggests that the use of overt social modelling should be used to improved students' academic ability.

**Conclusion**

Based on the finding obtained from the study, it can be concluded therefore that student's self-regulated learning are low, average and high. It is obvious that student whose academic self-regulated learning is low can achieve an improvement in their performance through appropriate therapeutic techniques. The techniques of overt social modelling therapy could directly influence students' self-regulated learning when acquired. An academic ability was discovered to influence the effectiveness of OSMT to improve students' self-regulated learning. Finally gender was found to not influence the responsiveness of participants to the therapeutic training.



**Recommendations**

1. The use of overt social modelling therapy (OSMT) should be employed in school system to improve students' academic self-regulation or performance across all levels.
2. Counselling psychologist, school teachers, education officers should adopt the use of OSMT to assist their clients or students to achieve improved level of academic self-regulation or performance.
3. Overt social modelling should be utilized by the school administrators and professional school counsellors to design and implement counselling intervention or techniques of behaviour modification.
4. Workshops and seminars should be organising for school counsellors and teachers on the use of behaviour modification (OSMT) programme to improve students' self-regulated learning.
5. School counsellors can work to shape those critical components of the school context that nurture the development of self-regulated learners. In addition, school counsellors can work with teachers and students to increase students' use of effective learning strategies. By performing a more proactive leadership role in empowering students to become self-regulated learners, professional school counsellors will both motivate young people to more fully realize their academic potential and further the growth of the school counselling profession.

**References**


Bandura, A. (1977). Social learning theory. New York: General Learning Press.

Cleary T., Peter P., & Nelson A., (2008). Effectiveness of the self-regulation empowerment program with urban high school students. Journal of Advanced Academics, 20(1), 70-107

Cleary, T. J., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. Psychology in the Schools, 41, 537–550

Cobb, R. (2003). The relationship between self-regulated learning behaviours and academic performance in web-based courses: Dissertation

Duncan, G., Dowsett, C., Claessens, A, Magnuson, K., Huston, A., Klebanov, P., Pagani, L., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., Duckworth, K. &Japel, C. (2007). School readiness and later achievement. Developmental Psychology, 43(6), 1428–46.

Ebulue, C. (2006). Factors influencing the development of self-regulated learning among ObafemiAwolowo University students. Unpublished M. Ed thesis of ObafemiAwolowo University, Ile-Ife.

Glaser, C., &Brunstein, J. (2007). Improving fourth-grade students' composition skills: effects of strategy instruction and self-regulation procedures. Journal of Educational Psychology, 99 (2), 297-310.

Graham, S., & Harris, H. R. (2005). Improving the writing performance of young struggling writers: Theoretical and programmatic research from the centre on accelerating student learning. The Journal of Special Education, 39, 19–33.

Hattie, J., Biggs, J., & Purdie, N. (2006). Effects of learning skills interventions on student learning: A meta-analysis. Review of Educational Research, 66(2), 99–136.

Lu, J., Yu, C,-S., and Liu, C. (2003). Learning style, learning patterns and learning performance in a web ict-based course. Information and Management, 40, 497-507.

Omoteso, B. (2011). Learning difficulties and self-regulated learning among undergraduate students in a Nigeria University. International Journal of Learning, 18, 7, 49-60.

Reeves, D. & Stich, A. (2010).Tackling suboptimal bachelor's degree completion rates through training in self-regulated learning. Innovative Higher Education, 36, 3-17.

Salman, M., Esere, M., Omotosho, J., Abdullahi, O., &Oniyangi, S., (2010). Effects of two psychological techniques in improving their academic performance of secondary school students. Journal of Modern Mathematics and Statistics 4 (3) 96-100.

Sierra, C., & Wang, M. (2002). Gender, discourse style, and equal participation in online learning. In G. Richards (Ed.), Proceedings Of E-Learn 2002 Conference (pp. 2364-2367), Chesapeake, VA: AACE.

Tawana B, & Kristin A. (2010). Assessing self-regulation: a guide for out-of-school time program practitioners. Atlantic Philanthropies.

Weinstein, C. E., Husman, J., & Dierking, D. R. (2000). Self-regulation interventions with a focus on learning strategies. In M. Boekaerts, P. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp. 727–747). Orlando, FL: Academic Press

Yen, C., Konold, T. & McDermott, P. (2004). Does learning behaviour augment cognitive ability as an indicator of academic achievement? Journal of School Psychology, 42, (157–169).

Yukselturk, E., &Bulut, S. (2009). Gender differences in self-regulated online learning environment. Educational Technology and Society, 12 (3), 12–22.

Zimmerman, B. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In B. Zimmerman and D. Schunk (Eds.), Self-Regulated Learning and Academic Achievement: Theoretical Perspectives (2nd Ed., Pp. 1–37). Mahwah, NJ: Erlbaum.

Zimmerman, B. (2002). Becoming a self-regulated learner: An overview: Theory into Practice, 41(2), 64-71.