EFFECTS OF GOAL-SETTING SKILLS AND PEER-MODELING ON HUMAN
CAPACITY DEVELOPMENT: A STUDY OF SS11 STUDENTS IN ENUGU STATE,
NIGERIA

Peace Chinwendu Israel
National Open University of Nigeria.

Abstract
This paper examines the effects of goal-setting skills and peer-modeling on Nigerian students’ self-efficacy. 270 Senior Secondary 11 (SS11) students selected from three public secondary schools in Enugu, Agbani and Udi zones of Enugu State, Nigeria, were used. Data collected were analyzed using one way Analysis of Covariance (ANCOVA). Four new models – conceptual, systematic goal-setting with specific skills, peer-modeling and mathematical models – were developed to enhance the training on self-efficacy. Three research hypotheses were formulated and tested at 0.05 level of significance. Descriptive survey and quasi-experimental pre-test, post-test control group designs were adopted for the study. The findings showed that goal setting skills and peer-modeling improved participants’ self-efficacy. The research is an attempt to address the growing interest in the investigative study on the declining standard of education in Nigeria. It is expected that this study should give more visibility and perhaps suggest the best way to overcome students’ low level of self-efficacy which has become a source of concern to parents, students, teachers and the society at large.

Keywords: goal-setting skills; peer-modeling; self-efficacy; self-management; problem solving skills

INTRODUCTION
Background to the Study
The school environment is meant to be an organized system for shaping students’ early learning behaviour in various facets of life. Basically, all experiences of learning, choice making and conscious motivation are usually affected by the student’s perception of his/her own ability to succeed. This being the case, the self-efficacy construct is a significant factor in students’ behaviour because it plays a paramount role in their academic attainment in school and other human endeavours. It is also viewed as an intrinsic drive that propels one into performing a task and ensures that the task is successfully executed (Asher, 1990). Students’ self-efficacy is a worthwhile pursuit in educational research, as it provides insights into how to promote positive learning qualities in students which in turn would equally be useful to teachers in the choice of appropriate instructional approaches in teaching.

According to Bandura (2001), self-efficacy is an expectation that an individual holds regarding his or her capabilities to accomplish a particular task or goal. He also observes that self-efficacy beliefs influence how individuals behave, feel, think and motivate themselves particularly in a learning environment. To him, students with low self-efficacy may believe that academic tasks are tougher than the tasks really are. Such a belief, he believes, gives rise to stress, depression and narrow vision of how best to solve a problem, whereas high self-efficacy helps create feeling of serenity in approaching difficult tasks and activities.

Similarly, Pajares (2003) highlights that students with low self-efficacy are likely to engage in tasks in which they feel competent and confident and avoid those tasks they feel they do not have the corresponding capabilities to accomplish so that they would not perform below the expected average score which may lead to failure. Therefore, there is the need to focus attention on the students themselves as a means of improving self-efficacy specifically, considering the relationship between competence and confidence. In line with the above, Schunk (2003) indicates that students are more likely to attend to models when they believe the modeled behaviour will help them attain their goals. Although learners are apt to listen to teachers display new skills, children with strong social goals may be more attentive to actions by their peers than to teachers. This is because generally speaking, students have so much interest and confidence in the activities and abilities of their peers and are likely to be motivated by them as well (Philips, 2009). Goal-setting is seen as a conscious effort to assist students to achieve improved self-efficacy. Okon (2001) observes that one needs to set goals to succeed in life because goals are immediate regulators of human actions and the means to self-fulfillment. People set different types of goals such as achievement goal, performance goal, mastery goal, self-regulatory goal, evaluation goal, production goal, outcome goal and classroom or learning goal. Locke and Latham (1990) assert that goals motivate individual to exert extra efforts, persist and focus attention on relevant task features.

Self-esteem is about self-valuing; the state of appreciating one’s own worth and importance, and having the character to be accountable for one’s self and act responsibly towards others. Self-esteem is perceived as one important factor required by everybody to succeed in life. It is also a well established fact that if one can build self-esteem at one’s adolescent period, then one can be confident all through one’s lifetime (Plummer, 2005). McDougall (1996) observes that students may decide to organize group discussions among themselves with a focus on the goals they have set as a drive towards achieving their aims. Models can motivate and raise
The issue of self-efficacy and self-esteem is very essential and contribute immensely to a country’s human capacity building and development of any country as it enables educational authorities to determine their own educational needs and carry out their own policies. Capacity building is a major challenge in West African countries such as Nigeria. The challenges and problems becomes greater when the students do not have adequate courage to solve their academic problem at the secondary school stage which subsequently affects their adult life – lack of adequate ability to solve major educational, socio-political and economic problems ravaging the West African coast. Therefore, capacity building in education is important both for the effective functioning of the educational system as well as for capacity building in other sectors. Most sectors or structures in a society rely upon a well functioning national education system in order to further develop and improve upon their own capacity. An essential aspect of capacity building is enhancing the ability of individuals, institutions and systems to cope with change and unforeseen circumstances. This study will go a long way in nipping this problem in the bud thereby paving the way for effective and efficient Nigerian society.

SIGNIFICANCE OF THE STUDY
In Nigeria, while the teachers’ subject competence is usually not in doubt (Israel, 2012), efforts aimed at helping teachers in gathering numerous techniques for assisting students and improving teaching methodology for students with learning difficulties as a result of low self-efficacy. The study area is Enugu State sitting on a latitude 6°30’N; Longitude 7°30’E. Enugu is the capital city of Enugu State. It is located in the South Eastern geopolitical zone of Nigeria in West Africa with 17 local government areas. Enugu State has six educational zones.

This theory is relevant to the study as it clarifies the issue that self-set goals would produce high self-efficacy and better self-regulated performance than assigned goals. Students are likely to be committed to attaining their goals and feel efficacious about doing so thereby enhancing self efficacy and self-regulation.

Social Cognitive Learning Theory
According to Bandura (2001), social cognitive learning theory states that human behaviour is powerfully influenced by what the individual observes, hears, feels, perceives, conceives, creates and more importantly, participates in.

It also states that the process of observational learning through modeling elucidates and identifies the influences on observing learning. This aligns with the idea that peer-modeling can raise self-efficacy in observers, who are likely to think that since their peers could learn they can also do the same. Furthermore, it stresses the relevance of peer-modeling strategies in enhancing performance because as students set goals, work in peer groups, motivating, observing, reinforcing one another, they are likely to succeed. This will in turn lead to self-development and eventually result in improved self-efficacy.

RESEARCH HYPOTHESES
The following hypotheses were set to guide the study:

- There is no significant difference in the post-test mean scores on self-efficacy among participants exposed to goal-setting skills and peer-modeling and the control group.
- Post-test mean scores on self-esteem among participants exposed to goal-setting skills and peer-modeling will not significantly differ from the control group.
- There is no significant difference in the post-test mean scores on self-assertiveness among participants exposed to goal-setting skills and peer-modeling and the control group.

METHODOLOGY
Area of Study
The study area is Enugu State sitting on a latitude 6°30’N; Longitude 7°30’E. Enugu is the capital city of Enugu State. It is located in the South Eastern geopolitical zone of Nigeria in West Africa with 17 local government areas. Enugu State has six educational zones.
namely: Agbanli, Awgu, Enugu, Nsukka, Obolloafor and Udi. There are 249 public secondary schools in the state. One of the reasons for choosing Enugu State is because it offers an advantage of labour force in Nigeria.

Research Design
Descriptive survey design and quasi experimental (pre-test/post-test control group designs), were used for this study. The purpose of the survey was to facilitate a baseline assessment to isolate the participants who qualified for the study; whereas the use of quasi-experimental design was to bring out those who would undergo training.

Population of the Study
The population of this study consisted of the selected Senior Secondary Two (SSII) students in three educational zones (Enugu, Agbani and Udi) in Enugu State. SSII was chosen because it is a semi-terminal and important senior class in the secondary school system. SSII is also more appropriate for the study because at the Senior Secondary One (SSI) level students have not yet chosen their specific subject combinations and students in Senior Secondary Three (SSIII), which is a terminal class, are usually too busy and preoccupied with the preparation for national examinations such as WAEC/NECO. Therefore, SSII students are most likely to benefit from the study before they engage in their national/final examinations.

Sample and Sampling Technique
Random Sampling technique was adopted in this study. Three public secondary schools were selected from 17 public secondary schools in the three educational zones. The schools were Annunciation Secondary School Nike, Enugu East (School One); Army Secondary School Awkunanaw, Agbani Zone, Enugu South (School Two) and Comprehensive High School Ukana, Udi North (School Three). Using stratified random sampling technique, a total of 270 students (135 male and 135 female) were selected. Details of the students are shown in Table 1:

Table 1: Distribution of Students in the Baseline Assessment Study

<table>
<thead>
<tr>
<th>Name of school</th>
<th>Zone</th>
<th>No. of SSII students chosen</th>
<th>Male</th>
<th>Female</th>
<th>Above 150 High</th>
<th>Below 150 Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Annunciation Secondary School Nike</td>
<td>Enugu East</td>
<td>90</td>
<td>45</td>
<td>45</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>2. Army Secondary School Awkunanaw</td>
<td>Agbani, Enugu South</td>
<td>90</td>
<td>45</td>
<td>45</td>
<td>34</td>
<td>56</td>
</tr>
<tr>
<td>3. Comprehensive High School Ukana</td>
<td>Udi North</td>
<td>90</td>
<td>45</td>
<td>45</td>
<td>31</td>
<td>59</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>270</strong></td>
<td><strong>135</strong></td>
<td><strong>135</strong></td>
<td><strong>97</strong></td>
<td><strong>173</strong></td>
</tr>
</tbody>
</table>

Source: Researcher’s survey study 2013

Table 1 shows the population of participants drawn from the three public secondary schools. 90 participants which involved 45 males and 45 females were selected from each of the three schools adding up to 270 participants. To determine those that would require training, Self-Efficacy Questionnaire (SEQ) covering Self-esteem, Self-assertiveness, Self-efficacy, Self-management and Problem-solving skills were administered to all participants. The 173 participants who scored below 150 marks as their overall score were deemed to have low level of self-efficacy. Out of 173, 58 participants were from School One, 36 from School Two and 59 from School Three. The 97 participants who scored above 150 marks as their overall score were deemed to have high level of self-efficacy. Of this group, 32 participants were from School One, 34 from School Two and 31 from School Three.

Table 2: Distribution of Participation by Gender and Training Groups N = 173

<table>
<thead>
<tr>
<th>Groups</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1 – Goal-setting skills</td>
<td>33</td>
<td>25</td>
<td>58</td>
</tr>
<tr>
<td>School 2 – Peer-modeling</td>
<td>26</td>
<td>30</td>
<td>56</td>
</tr>
<tr>
<td>School 3 – Control group</td>
<td>37</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95</strong></td>
<td><strong>78</strong></td>
<td><strong>173</strong></td>
</tr>
</tbody>
</table>

Table 2 shows the grouping of male and female participants for training after the baseline assessment study. In school one, 58 participants were assigned to goal-setting Skills; 33 females and 25 females; in school two, 56 participants were assigned to peer-modeling; 26 males and 30 females. While in school three, 59 participants were assigned to control group; 36 males and 23 females. Of the total distribution of 173, 34 participants who scored above 150 in the pre-test were selected as potential models.
Reliability and Validity of the Instrument

Table 3: Test re-test reliability estimate of the research instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Total No of Items</th>
<th>Variables</th>
<th>N</th>
<th>Test positions</th>
<th>Means</th>
<th>SD</th>
<th>n₀</th>
<th>Var.</th>
<th>x</th>
<th>SD</th>
<th>r-cal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy Questionnaire (SEQ)</td>
<td>75</td>
<td>Self-efficacy</td>
<td>32</td>
<td>1st 2nd</td>
<td>112.7</td>
<td>119.8</td>
<td>0.70</td>
<td>X</td>
<td>Y</td>
<td>110.52</td>
<td>112.84</td>
</tr>
<tr>
<td>Self-esteem (subscale)</td>
<td>30</td>
<td>Self-worth</td>
<td>32</td>
<td>1st 2nd</td>
<td>48.37</td>
<td>50.18</td>
<td>0.95</td>
<td>X</td>
<td>Y</td>
<td>47.28</td>
<td>46.94</td>
</tr>
<tr>
<td>Self-assertiveness (subscale)</td>
<td>15</td>
<td>Confidence</td>
<td>32</td>
<td>1st 2nd</td>
<td>21.03</td>
<td>21.65</td>
<td>0.51</td>
<td>X</td>
<td>Y</td>
<td>20.43</td>
<td>21.02</td>
</tr>
<tr>
<td>Self management (subscale)</td>
<td>15</td>
<td>Time</td>
<td>32</td>
<td>1st 2nd</td>
<td>21.50</td>
<td>24.56</td>
<td>0.50</td>
<td>X</td>
<td>Y</td>
<td>22.32</td>
<td>23.64</td>
</tr>
<tr>
<td>Problem solving skills (subscale)</td>
<td>15</td>
<td>Resilience</td>
<td>32</td>
<td>1st 2nd</td>
<td>21.81</td>
<td>23.37</td>
<td>0.85</td>
<td>X</td>
<td>Y</td>
<td>20.49</td>
<td>21.24</td>
</tr>
</tbody>
</table>

**SUMMARY OF FINDINGS**

(a) The findings of the study show that self-efficacy was enhanced in participants exposed to goal-setting skills training and peer-modeling than those in control group. Post hoc analysis reveals that goal-setting skills improved their self-efficacy better than peer-modeling training.

(b) Higher level of improvement in self-esteem was observed among participants who were in goal-setting skills and peer-modeling groups respectively than those in control group. Although peer-modeling training improved their self-esteem, there was a better improvement in the participants exposed to goal-setting skills training.

(c) The study showed that training in goal-setting skills and peer-modeling was effective in improving the participants’ self-assertiveness except in the control group. However, participants’ self-assertiveness had higher level of improvement with peer-modeling training than with goal-setting skills.

**DISCUSSION OF FINDINGS**

**Hypothesis One:** There is no significant difference in the post-test mean scores of self-efficacy among participants exposed to goal-setting skills, peer-modeling and the control group. The findings of this study show that participants trained in goal-setting skills obtained the highest mean difference (65.73), followed by those exposed to peer-modeling (52.15) and lastly the control group (6.01). The most probable reason for this result may be that specific self-set learning goals are especially effective in enhancing self-efficacy and self-regulation. Also, goal-setting skills training is a more comprehensive and better structured programme of intervention that inculcates specific abilities and special skills that positively impact on participants’ self-efficacy. The result aligns itself with the findings of Brown and Latham (2000) and Schunk (2008) who disclose that goal-setting can enhance students’ self-efficacy and skill development. Similarly, Phillips and Gully (1997) reveal that individuals with a higher learning goal orientation are more likely to have higher self-efficacy than individuals with lower learning goal orientation. In other words, learning goal orientation exerts a positive effect on self-efficacy, whereas performance goal orientation has a negative effect. In line with this, Alderman (1999) stipulates that every goal will neither motivate nor improve low self-efficacy. According to Zimmerman (2000), high self-efficacy may not always yield positive results because students may become overconfident and reduce their investments in time and efforts to do well.

**Hypothesis Two:** There is no significant difference in the post-test mean scores of self-esteem among participants exposed to goal-setting skills, peer-modeling and the control group. The findings of this research show that participants exposed to goal-setting skills training recorded the greatest improvement in their self-esteem scores with a mean difference of 1.29 followed by those exposed to peer-modeling with a score of 13.66, while the control group had the lowest score of 1.59. This result is in agreement with that of Tang and Reynolds (1990) which shows that individual with low self-esteem had lower goals, efficacy and task performance than those with high esteem who even set high goals and had high performance in the difficult condition than in the easy condition. The probable reason for this could be that goal-setting training is a very appropriate and instructional strategy that drills and inculcates skills that enhance participants’ self-esteem. Conversely, Goodlad (1997) in his early work on the role of peer-group in students’ self-esteem focuses on its negative role in distracting adolescents from a commitment to self-efficacy and academic learning. However, the focus of peer-modeling in this study is on its positive influence on students’ self-efficacy.

**Hypothesis Three:** There is no significant difference in the post-test mean scores of self-assertiveness among participants exposed to goal-setting skills, peer-modeling and the control group. The result shows that participants in the peer-modeling group had the highest mean difference (12.61) on self-assertiveness, followed by those in goal-setting group (11.45) and lastly the control group (1.27). The explanation could be that as individuals grow up, they learn to adapt their behaviour as a result of their experiences. They model themselves upon those around them – parents, teachers, friends, peers and other influences like the television, internet and magazines. Fortunately, teachers usually use several peer models to encourage proper behaviour in class. This aligns with the findings of Nelson and Low (1999) that if the skill of
assertion is not learned and developed, individuals are left with only two forms of expression – aggression and defense. However, Kern and Paquette (1992) in a study on the importance of negative assertion and its effects on long term naturalistic relationships demonstrates that higher levels of assertive behaviour are associated with perception of greater capability and likeability.

**CONTRIBUTIONS TO KNOWLEDGE**

- This study has provided a modification of Self-efficacy Questionnaire (SEQ) that can be localized to the Nigerian educational environment for the assessment of self-efficacy.
- The study has created four new models to help teachers and learners in using training/study packages capable of boosting low level of self-efficacy and developing new learning strategies. This, we believe, will in turn boost human capacity development in the Nigerian society.
- The study has indicated the effectiveness of goal-setting skills and peer-modeling in the improvement of students’ self-efficacy in Enugu State which can equally be applicable to other states in Nigeria.

**CONCLUSION**

This study is all enriching for the effectiveness of human capacity building and development in Nigeria. It has established that self-esteem, self-assertiveness, self-management and problem solving skills are appropriate sub-scales needed for high self-efficacy as a result of the functional relationship between self-efficacy and these sub-scales. Furthermore, peer group can be put to positive and constructive use to enhance self-efficacy and this will have a positive impact on human capacity building of the Nigerian society.

**REFERENCES**


