UNIVERSITY OF CAPE COAST

RELATIONSHIP BETWEEN STUDENTS' PERCEPTION OF THE INTERNAL

DYNAMICS OF THEIR COLLABORATIVE LEARNING CONTEXTS,

EFFORT MADE AND ACADEMIC PERFORMANCE.

SYLVESTER ATIBIYA

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BY

SYLVESTER ATIBIYA

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in partial fulfillment of the requirements for award of Master of Education

Degree in Teacher Education

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.
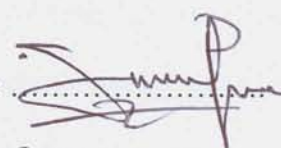
Candidate's Signature: .... Date: 15/08/13

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Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: .... Date: 09/12/13

Name: Prof. James Adu Opare

ABSTRACT

The major thrust of the study was to find out the relationship between students' perception of the internal dynamics of their collaborative learning context, effort made and their academic performance in E.P. College of Education, Bimbilla. One hundred and fifty students from the college were selected for the study through the purposive sampling technique. Questionnaire was used to obtain brief demographic information such as gender and age necessary for the study and the research questions. The correlation between students' performance in English, Mathematics, and Science on one hand, and their perception of the internal dynamics of collaborative learning context on the other hand was compared.

SPSS computer software was used for the data analysis. The Pearson Product Moment Correlation was used to analyze data for the correlations because all the data were measured on six point likert-scale.

Although most respondents had high positive perception (90%) about the internal dynamics of their collaborative learning context, there was no correlation between academic performance and the internal dynamics variables except in the case of equal participation versus performance in science which has a correlation of 0.231, significant at 0.05. Academic self-efficacy was found to be moderately related to the way students perceived the internal dynamics of their collaborative learning context. It was also found that students' academic effort and grades in Mathematics, English and Science were hardly related.

ACKNOWLEDGEMENTS

DEDICATION

I dedicate this dissertation to my dear mother Mrs. Atibiya Abowolgo and my

late father Mr. Atibiya Azokko.

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CHAPTER ONE

INTRODUCTION

Background to the Study

The generally low academic performance of teacher-trainees in the colleges of education in the country is a cause for concern for all stakeholders of education. The perceived low performance could be attributed to a number of factors. Perhaps majority of the trainees actually do not intend to be professional teachers but only use the college of education as a mere means to an end or as stepping-stones to more adventurous fields of education and personal development. It is also possible that most trainees see the college of education as a last resort since they have no option left to fix themselves anywhere else. Mostly these categories of students do not have the best of results (senior high school level) and for that matter are generally low achieving students.

E. P. College of Education, Bimbilla has students with similar characteristics such as mentioned above if not worse. Most of the students of this college come from the eastern corridor of the Northern Region. This college is isolated and lacks many social amenities such as access to good roads, potable water and credible and reliable telecommunication system. It also lacks other social services such as good medical care, good transportation network linking this rural area to other important towns in the region and the country at large. The whole of the eastern corridor of the Northern Region does not attract the best of teachers at the basic school and senior high school levels because of the deprived

nature of the area. This type of environment does not attract good students to the college. In fact, the college seems to have one of the worst records of students with very bad entry behaviour in the past as available records in the college indicate. The Evangelical Presbyterian (E.P.) College of Education, Bimbilla was established in 1962 as a single sex (male) institution with an initial intake of 24 to train teachers to acquire Certificate 'A' 4year post middle. The first batch of females was admitted in 1983 and that marked the beginning of increased enrollment and it becoming a co-educational institution. The college shifted from the award of certificate 'A' 4-year post middle to certificate 'A' 3-year Post Secondary in 1992. It remained at that status until 2005 when the college, with other 37 public colleges in Ghana, was mandated by government to award diploma in basic education in line with policy and under the tutelage of the University of Cape Coast.

The last few years before colleges were raised to tertiary status, presidely 2000-2005, the college suffered one of the worse failures in the country. In the academic progress records of the college, so many students were being sacked each year for failing part one. The generation of poor academic performance did not end with the Three Year Certificate 'A' programme. It persisted through the Diploma in Basic Education programme when the colleges were raised to the tertiary level. Since 2005, the College is still in the list of colleges that register poor performance in every semester examinations. The summary of results analysis released by Institute of Education, University of Cape Coast every semester, shows that the E.P.College of Education had consistently registered one of the highest total number of students who were referred in two or more subjects. The summary and analysis of the results as well as academic progress records of

the college show that from 2005/2006 academic year to 2007/2008 about 70% of the students were referred in about six subjects of the nine courses of each semester. The perfomance began to improve in 2008/2009 with 120 first year students and 70 second year students being referred in the first semester courses whilst the second semester recorded 74 first year and 72 second year referred students. The final grade of these students for the last three years has been very poor. The best grade the college has produced so far is one second class upper and four second class lower. The rest are weak pass or no grade (see appendix B). This poor academic performance is largely perceived to be resulting from very bad entry behaviour compounded by fake results as have always revealed by confirmation of students results by West African Examination Council. The bad entry behaviour of the students has been a serious problem for some time now due to the deprived nature of the area. Most of the candidates come with very weak passes such as 'D 'and 'E' in the core subjects. In fact about 90% of the students come to the college with 'E' in English, Mathematics and Science as indicated by the 2007-2009 admission records (see appendix C). But could it be the only factor contributing to the poor performance of the students?

Perhaps some of the learning styles adopted by students are not helpful enough. May be it is because students do not know or understand or better still are not able to identify their learning styles in order to make good use of them for effective learning. A random survey during students' study time to observe students' learning habits revealed several learning styles students seem to be practicing. Some of these learning styles are solitary and social learning styles such as interpersonal, print-oriented learning and democratic education. A good number of students were engaged in solitary learning. These students were found

in lonely corners privately and independently learning. Solitary learners are people who can best learn by teaching themselves how to do something, what something means, or how something works. What one might wish to know is how such students are helped out when they encounter problems.

On the other hand, some students were found learning in groups. These groups shared views, ideas and corrected their notes. Social learners work best in groups, and are able to absorb more useful information if they are studying with someone else at the same time. Quizzing each other is also a great way to do things. Working in groups to practice behaviour may help one to avoid mistakes or errors made by others and also promote creativity and better organization of ideas. Several questions could be asked as to whether these learning styles are helpful to the students and if they do why are the students not performing to expectation.

Learning styles can encompass how you manage information so that you will remember it, how you prefer to study, and how you go about solving problems. The concept also deals with your environmental preferences for learning. Knowing these preferences will help you work more effectively. Do you like it quiet when you study, or must you have lots of background noise? Do you prefer bright lights or dim ones? How sensitive are you to temperature? Does a room that is too hot or too cold make you to lose focus? Does a formal setting such as a desk and chair work for you, or is studying in your bed effective? Do you like to move around? What motivates you to study? Do you prefer to study alone or do you need to study with others? At what time of the day do you most like to study? If an individual is able to identify the learning styles and environment that most suits him or her and use them effectively there is no doubt that academic performance would improve significantly (Hassen, 2010).

It is rarely difficult to find homogenous classes. Most typical classrooms are heterogeneous with different levels of abilities such as diverse cultural, economic, linguistics ethnic and social backgrounds. It is in this line that Jones and Jones (2001) suggested that the teacher must modify a classroom environment to help learners develop prosaically cooperative behaviour and culture of learning. Jones and Jones seem to be proposing students learning collaboratively in groups. What then is collaborative learning? "Collaborative learning" is an umbrella term for a variety of educational approaches involving joint intellectual effort by students, or students and teachers together. Usually, students are working in groups of two or more, mutually searching for understanding, solutions, or meanings, or creating a product. Collaborative learning activities vary widely, but mostly centre on students' exploration or application of the course material, not simply the teacher's presentation or explication of it. Collaborative learning as a strategy of learning among peers originated from Lewin's (1948) group dynamics which postulates that a group has a large degree of differentiation.

Recent research suggests learning is fundamentally influenced by the context and activity in which it is embedded (Brown, Collins & Duguid, 1989). Collaborative learning activities immerse students in challenging tasks or questions rather than beginning with facts and ideas and then moving to applications, collaborative learning activities frequently begin with problems, for which students must marshal pertinent facts and ideas. Instead of being distant observers of questions and answers, or problems and solutions, students become immediate practitioners.

The present research was designed to study the relationship between students' perception of the internal dynamics of their collaborative learning

groups, effort made and their academic performance in Ghanaian Colleges of Education with Bimbilla College of Education in focus.

Statement of Problem

The rather limited knowledge and experience of our young teachers today as claimed by many people and some educationists make them not only ineffective in class but contribute largely to the falling standards of education in the country. A cluster of factors may be contributing to producing teachers who are largely ineffective in class for the basic schools in Ghana.

It appears some people point acusing fingers at certain causal factors which include first inadequate time frame at college to prepare well as teachers. The blaime is also placed on the student-teachers who may not have implored the best opportunities to train well during their school days. The possibility of tutors not using the appropriate method, techniques, strategies as well as good guidance cannot be overruled.

Personal teaching experience in Bimbilla E.P.College of Education revealed that the college caught up in this web has more serious conditions that are peculiar to only the college which further reduce the quality of teacher training in that college. Some of the disturbing factors are one the generally low academic achievers which results from the fact that majority of the students come in with very weak passes. Other perceived factors are the environment being seriously unfriendly for high productive academic work; and the generally poor attitude of students towards learning. This is shown clearly in their lack of commitment and zeal in learning. It seems therefore that, students do not cherish knowledge and competence but cheating in order to pass examinations.

Though things are beginning to change for the better in the last three years, it appears few obstacles still persist. Some of the efforts made by the college to improve learning conditions in the school include, employing young and energetic qualified teachers who are working zealously to turn things round for good. During the last four years about 75% of the tutors of the college are made efforts to obtain their second degree in order to improve upon their competence in teaching. Staff development and progress report, (appendix D). One of the effective strategies teachers of the college are adopting to improve students performance is encouraging learners to engage in collaborative group work. The college has also embarked on remedial classes especially in English, Mathematics and Science to step up students' academic performance.

In spite of these efforts made by the college, some pertinent questions still agitate the minds of many people as to whether the use of collaborative group work in class during lessons as well as seminars and assignments can help in producing the desired results. Some of the questions that remained unanswered are whether students actually engage in collaborative learning, whether there is any relationship between collaborative learning and student academic performance, and whether students benefit from collaborative learning. It is these questions that have informed the researcher's quest to find out if there is any relationship between student's perception of the internal dynamics of their collaborative learning groups, effort made and academic performance.

Purpose of the Study

This study intends to find out whether there is any relationship between students' perception of the internal dynamics of collaborative learning, effort made

and academic performance among students of E. P. College of Education, Bimbilla. The specific objectives of the study include;

1. To find out students' perception of the internal dynamics of their collaborative learning groups.

2. To find out the extent to which students' perception of the internal dynamics of their collaborative learning groups and their academic performance are related.

3. To find out the extent students' self-concept of academic ability is related to their perception of the internal dynamics of their collaborative learning groups.

4. To find out how students' self-concept of academic ability is related to the academic effort they make.

5. To find out the relationship between students' academic effort and their academic performance.

Research Questions

This research was designed to answer the following questions:

1. What are students' perceptions of the internal dynamics of their collaborative learning groups?

2. To what extent are students' perception of the internal dynamics of their collaborative learning groups and their academic performance related?

3. To what extent is students' academic self-concept related to their perception of the internal dynamics of their collaborative learning groups?

4. To what extent is students' academic self-concept related to the academic effort they make?

5. To what extent is students' academic effort related to their academic performance?

Significance of the Study

Available literature indicates that research on collaborative learning has been done in various subjects and at the various levels of education ranging from basic levels through second cycle to tertiary levels. Most of these studies were done outside Ghana (Opare & Eshun 2009). The few studies done in Ghana was at the senior high school and teacher training college levels. Although all these studies are similar to the relationship between students' perception of the internal dynamics of collaborative learning and academic performance, none of them was done in the eastern corridor of northern Ghana or has direct relation with schools in northern Ghana. Besides, this is not replication of what others have done but an extension by relating it to effort. This research is therefore important since it will not only be one of the first studies at the college of education level in northern Ghana, but will also reveal whether collaborative learning at that level is beneficial. It will also contribute to enrich the knowledge base of the topic and further close up the gap created by available research works. This study will be source of information for teachers, especially teachers of E. P. College of Education, Bimbilla and encouragement to use the technique in teaching.

This research will contribute significantly to the world of research since the findings may be used as source of information for literature review for some other studies. Weak points or gaps found in this work may also be used as research topics for further studies.

Delimitation of the study

This study is limited to E. P. College of education Bimbilla. It specifically aims at the relation between students' perception of the internal dynamics of collaborative learning, effort made and academic performance of students and

whether slow learners can use it to overcome learning difficulties. It does not extend to other forms of collaboration such as team work. The study is also restricted to only level two hundred (200) students of E. P. College of education Bimbilla.

Limitation of the study

Some respondents might be reluctant to provide true and sincere information about their learning weaknesses or problems and performance (results). Some could also be ignorant about their best strategies that work for them in their learning process.

Definition of Terms

The following is a list of lexicons that are kin in determining the focus and direction of this work. The explanation that accompanies each of them is subjective to contextual usage in the content of the entire work.

Learning and achievement: Students with high self-efficacy tend to be better students and achieve more**.**

Collaborative Learning: An instruction method in which students work in groups towards a common academic goal.

Individual Learning: An instruction method in which students work individually at their own level and rate towards an academic goal.

Critical-thinking: Items that involve analysis, synthesis, and evaluation of the concepts.

Self-concept: It is judgment of one's capabilities to perform given actions and measure specificity which includes the evaluation of competence and feelings.

Efficacy: It is the power to produce an effect-in essence, competence.

Self-efficacy: Beliefs or expectations combined together to form one's overall concept of self-efficacy. It relates to a person's perception of his/her ability to reach a goal.

Collective efficacy: A group's shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainment.

Group dynamics: Interactions among particular students for the purpose of performing academic tasks in a learning environment.

Vicarious: Something done, felt or experienced by one person on behalf of another

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Organization of the Rest of the Study

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This research work is organized in five chapters. The introductory chapter describes the background to the study, statement of problem, purpose of the study and research questions. The others are delimitation, limitation, and significance of the study, definition of terms and organization of the rest of the study

Chapter two reviews related literature based on theories and empirical evidence. This covers theories of social learning, group dynamics and collaborative learning, empirical review on collaborative learning, relationship between collaborative learning and individual leaning and gaps.

Chapter three describes methodology of the study. This includes description of research design, population and sample size, instrumentation, data collection procedure and data analysis procedure.

Chapter four presents discussion of results. In this chapter answers to the research questions are provided. Besides answers to the research questions are distribution of respondents by gender and age group as well as distribution of

respondents in collaborative learning groups. Chapter five sums it all with a summary of the entire work, conclusion, recommendations and suggestions for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter attempts to review relevant literature on the relationship between students' perception of the internal dynamics of their collaborative learning groups' effort made and academic performance. A conscious effort has been made to extensively cover theories of social learning, group dynamics, applying collaborative learning and all its related issues. Empirical issues are also reviewed trying as much as possible to expose gaps and weaknesses and also highlighting strengths found in the available related literature.

Theories of Social Learning

Social learning theory is said to have been derived from the work of Cornell Montgomery (Rotter, 1954) who proposed that social learning occurred through four main stages of limitations. These include close contact, imitation of superiors, understanding of concepts and role model behavior.

This social learning consists of three parts: observing, imitating and reinforcement. Julian Rotter moved away from theories based on psychosis and behaviourism and developed learning theories. In social learning and clinical psychology, Rotter (1954) suggested that the effect of behaviour has an impact on the motivation of people to engage in that specific behaviour. People wish to avoid negative consequences while desiring positive results or effect. If one expects a positive outcome from behaviour or think there is a high possibility of a positive outcome then there will be more likely an engagement in that behaviour. The

behaviour is reinforced with positive outcomes, leading a person to repeat the behaviour. This social learning behaviour suggests that behaviour is influenced by these environmental factors or stimulus and not psychological factors alone. Rotter (1954) and Bandura (1977) expanded on Rotter's idea as well as earlier work by Miller and Dollard (1941) which is related to the social learning theories of Vygostky and Lave. This theory incorporates aspects of behavioural and cognitive learning. Behavioural learning assumes that people's environment cause people to behave in certain ways.

Cognitive learning presumes that psychological factors are important for influencing how one behaves. Social learning suggests that a combination of environmental (social) and psychological factors influence behaviour. Social learning theory outlines three requirements for people to learn and model behaviour.These are retention; reproduction; and motivation to want to adopt the behaviour.

One of the tenets and perhaps the most important theoretical underline of entertainment education is Bandura's (1979) social learning theory. This theory is developed from experimental psychological studies which demonstrate how children learn and imitate modeled behaviours. It is a general theory of human behaviour even though derived from the field of social psychology.

The social learning theory of Bandura emphasizes the importance of observing and modeling the behaviours, attitudes, and emotional reactions of others. Bandura (1977) argues that people learn from observing role models in day-to-day life. He explains:

> Learning will be exceedingly labourious, not to mention hazardous, if people had to rely solely on their own actions to inform them what to do.

Fortunately, most human behaviours are learned observationally through modeling. From observing others, one forms an idea of how new behaviours are performed and on later occasions this coded information serve as a guide for action. Because people can learn from examples what to do, at least in approximate form, before performing any behaviour they are spared needless errors (p.22).

Social learning theory explains human behaviour in terms of continuous reciprocal interaction between cognitive, behavioural, and environmental influences. The component processes underlying observational learning are: (1) Attention, including modeled events (distinctiveness, affective valence, complexity, prevalence, functional value) and observer characteristics (sensory capacities, arousal level, perceptual set, past reinforcement); (2) Retention, including symbolic coding, cognitive organization, symbolic rehearsal, motor rehearsal; (3) Motor Reproduction, including physical capabilities, self-observation of reproduction, accuracy of feedback; and (4) Motivation, including external, vicarious and self reinforcement

According to the social learning theory, modeling influences learning primarily through its informative functions. Observers retain a symbolic representation of the modeled behaviour which then serves as a blueprint for the behaviour. Observational learning has four components: attention, retention, motor, and motivational processes that help to understand why individuals imitate socially desirable behaviours (Bandura, 1977).

Other factors involved in these components are the influence of social group and the structural arrangement of human interaction. Retention processes deal with the ability to remember the observed models as well as mentally

organizing and rehearsing the behaviour, motor reproduction comes through trial and error, observation of the behaviour or skill but the motor refinements also need to be present to emulate the behaviour. Finally, motivational processes explain that people usually enact behaviours that seem to be effective for other people. They are more likely to adopt more modeled behaviours which will be more beneficial to them (Bandura, 1977). The notion of modeling and vicarious experience is therefore typically the way human beings learn.

Bandura refined social learning theory into social cognitive theory. Bandura posits that children and adults operate cognitively on their social experiences. These cognitions influence behaviours and development, and other environmental factors determine how people interact and learn from each other (Bandura, 1986). The main concept of social cognitive theory explains human behaviours as a dynamic and correlated interaction between the person and the environment. Vygotsky (1978) opines that learning occurs during discussion. This is because interactive process results in individuals recognizing and reconstructing their own thinking and understanding. In group discussions, members share their thoughts together and listen to diverse and better informed ideas. This allows individual members to identify gaps in their own views and discard misconceptions (Fawcett & Garton, 2005).

In the view of Opare (2007), social learning occurs through social interaction, through spoken language. When the students learn collaboratively they discuss issues and concepts, ask questions and argue among themselves. Students therefore learn from one another by discarding wrong understanding and misconceptions. The main features of collaborative learning have been described as verbal communication and that verbalization improves understanding and

performance since it encourages exchange of ideas (Underwood, Underwood and Wood 2000).

Wells and Claxton (2002) believe that learning is a social activity and to be able to understand how students learn, one must consider the social context within which they learn. They observed that successful learning takes place through active participation in purposeful collaborative activities. They were quick to note that, there is a social confusion connected to collaborative learning. What may be reasonable for one individual member may be irrational for the whole group.

Social learning and collaborative learning are synonymous and both inevitably demand working in groups. This is in line with the ideas of Mitnik et al (2009). According to them collaborative learning is based on the model that knowledge can be created with a population where members actively interact by sharing experience and taking on roles. Collaborative learning therefore is heavily rooted in Vygotsky's (1978) view that there exists an inherent social nature of learning which is shown through his theory of zone of proximal development. Nevertheless Opare (2007) has it that collaborative learning is derived from Lewin's (1948) group dynamics. He cited Lewin (1943) as being the first to use the term to describe the powerful process that takes place within a group (group internal dynamics). Smith and MacGregor (1992) describe collaborative learning as an umbrella term for a variety of educational approaches involving joint intellectual efforts by students or students and teachers together. Johnson and Johnson (1991) define group dynamics as scientific study of behaviours in groups to increase our knowledge about the internal nature of group development and interrelations between groups and individuals. The measure for success and failure

of a group depends largely on how consistent its internal dynamics are with the goals and aspirations of its members.

The performance of a group depends so much on an individual's role because members depend on each other for achievement. A powerful group dynamics is created if members of the group play their individual roles based on the fact that their individual successes depend on the success of the whole group. Lewin's (1948) field theory explains human behaviour as a function of both the person and the environment. This means an individual's behaviour is related to both social situations and the characteristics of the individual involved. Brown (1988) identified two social situations in Lewin's theory, task interdependence and fate interdependence. Interdependence of fate and task performance implies that one's success in a group may be a necessary pre condition for others to succeed in their work.

The ideas of the two giant's theories, Vygotsky and Kurt Lewin can be merged in collaborative learning. Vygotsky`s theory emphasizes on social interaction as an effective means for learning. His argument is that learning takes place through discussion which brings about cross fertilization of ideas. This is in consistent with Lewin`s theory of group dynamics which stresses on social interdependence. Lewin's view of social interdependence is that the success of a person directly influences other members of the group.

Lewin and Vygotsky share similar views that members of the group must be actively involved in the learning process. Opare (2007) agreed with them by explaining that promotive interaction is the mutual help that members offer to one another. Through interaction and active participation in collaborative learning,

learners become more critical in thinking as well as effective in knowledge synthesis.

Internal Group Dynamics and Social Learning

Johnson and Johnson (1989) as well as Johnson, Johnson and Holubec (1988) through their research have always referred to five basic elements in true collaboration. These are positive interdependence, promotive interaction, group processing, individual accountability and social skills. However, Opare (2007) indicates that a close scrutiny of Lewin`s (1948) group dynamics reveal two more elements or conditions necessary for the success of collaborative learning. These are perceived equal participation and shared leadership. These elements can be described as conditions that are necessary for successful collaborative learning.

Promotive Interaction

According to Roger and Johnson (1994) promotive interaction is described as individuals encouraging and facilitating each others efforts to achieve and complete task in order to reach the group's goal. Students need to do real work together in which they promote each others success by sharing resources, supporting, encouraging and applauding each other's efforts to achieve. In the view of Opare (2007) promotive interaction is the mutual assistance that members give to one another. This may include giving verbal explanation on how to solve problems, discussing the nature of the concepts being learned and relating present to past learning. This ensures that learning groups are both academic support system and a personal support system. It is through promoting each other's learning that members become personally committed to each other and to their mutual goals.

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Positive Interdependence

In positive independence each member is assigned complementary and interconnected roles that specify responsibilities that the group needs in order to complete the joint task. When the teacher assigns complementary roles such as reader, recorder, checker of understanding, they are promoting participation that is vital to high quality learning. Opare (2007) described positive interdependence as the heart of cooperative and collaborative learning. He explained that if learning situations are to be collaborative, students must perceive that they are positively interdependent with other members of the learning group and that their learning collaboratively together means they either swim together or sink together depending on the total effect of the individual effort.

Group Process

Opare (2007) defines group processing as the process of monitoring the success of the group and its members. The group ought to reflect on how well they are working. They must do self evaluation to determine the extent to which they are succeeding both as a group and as individuals. Group processing exist when group members discuss how well they are achieving their goals and maintaining effective relationships.

The school situation, should offer student time and procedures to analyze how well their groups are functioning and the efforts to which students are employing their social skills to help members to achieve and maintain effective working relationships with the group. Johnson and Johnson (1991) sums up that group process facilitate the learning of social skills and ensures that members receive feedback on their participation.

Individual Accountability

Vygotsky (1962) explains individual accountability (personal responsibility) as "what children can do together today they can do alone tomorrow". He argues that individual accountability exist when the performance of individual students is assessed and recommended for contributing to the success of the group. Opare (2007) gave a clearer view of the concept when he said individual accountability is the acceptance of the fact that each member of the group is accountable to the group for task assigned to them. He adds that free riders must be rebuked and made aware of their negative tendencies. Opare (2007) emphasizes that for high individual accountability it must be ensured that each member is strengthened and group members are held individually accountable to their share of the work,

Social Skills

It is important that individuals learn social skills for collaboration and be motivated to use them. The whole field of group dynamics is on the premise that social skills are the keys to group productivity (Johnson & Johnson, 1991). In the school situation social skills such as leadership, decision-making, trust building, communication and conflict management skills have to be taught (Johnson & Johnson, 1991). These social skills are required for interaction with peers from other cultures and ethnic groups. Godwin (1999) argued that collaborative groups need to be guided and directed to establish group expectation that they understand and are willing to meet and actively engaging them in constructing their own learning opportunities. This will promote their vested interest, commitment and critical opportunities for students to understanding the significance of exactly which skills they need to employ and practice. He outlined some pre-requisite

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skills for these types of interaction as respectful listening to group members; using appropriate strategies to voice disagreement; turn talking; exhibiting and maintaining eye contact and self-control; and sharing and trusting**.**

Equal Participation

In the view of Opare (2007), collaborative learning among peers is successful when every member is involved. There should be no free riders or any one perceived as a social loafer. Also no one should be perceived to be doing all the work whiles others merely goof and listen passively. Every member must feel that every body is important and therefore an equal participant in the groups activities.

Shared Leadership

Doyel and Smith (2001) see leadership as something that can be explored as a social process. It is something that happens between people and not much of what leaders do. As such it does not depend on one person but on how people act together to make sense of the situations that face them. It is happening all the time. Doyel and Smith (2001) further argued that leadership is not necessarily about one person. Some times everyone has the quality of being a leader or taking some form of responsibility in their lives. Groups according to Johnson and Johnson (1991) have at least two objectives namely, completing a task and maintaining effective collaboration among members. Group members obtain, organize and use information to make a decision in order to fulfill the group's task. The distributed-action theory of leadership has two basic ideas: one is that any member of the group may become a leader at any time by taking actions that help the group to complete its task and maintain effective collaborative relationships, and the other is that any leadership function may be fulfilled by

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different members performing a variety of relevant behaviours. .In this way leadership is described as a learned set of skills that anyone with certain minimal requirements can acquire. Opare (2007) gave a deeper dimension of the concept explaining that collaborative learning peers at any given time and in any situation must be seen doing different things. He argued that leadership must be seen to be diffused and contextual.

Group Dynamics and Collaborative Learning

The theory of group dynamics postulates that so many differences exist in a group and different members work on different tasks to accomplish different things for the group. A group dynamics expert Shaw (1981) argues that all groups have certain things in common: their members interact. For him a group is two or more people who interact and influence one another. Turner (1987) argues that groups perceive themselves as 'us' in contrast to them. He explains that groups may exist for a number of reasons- to meet a need, to belong, to provide information, to support, to supply rewards, and to accomplish goals. Lewin (1948) points out that the roles performed by individuals in a group ensure that task behaviour of group members are interrelated so that the groups' goals are achieved. The roles are complementary in that one cannot be performed without the other.

Fawcett and Garton (2005) cited in Opare & Eshun (2009) has it that collaborative peer learning involves students working together to complete a common task or to master a common challenge. Gerlach (1994) contended that collaborative learning is an educational approach to teaching and learning that involve a group of students working together to solve a problem, complete a task

or create a product. It is essentially a social activity in which participants talk among themselves and through which learning occurs.

Goldbeck (2001) and Sinagra, (2001) as cited in Opare (2007) states that working together with peers makes learning more effective than working alone. A review of the Vygotskian framework by Johnson (1994) and Garton (1992) explained by Opare & Eshun (2009) has it that when students of different ability or competence level work collaboratively together they tend to gain cognitively in task performance and stressed that students learn more when they actively participate in the discussions.

These studies indicate that social learning is a progressive and systematic way by which students assimilate information and relate this new knowledge to prior knowledge. Collaborative learning therefore engages learners in processing and synthesizing information rather than simply memorizing it. Students also benefit tremendously because of the exposure to different views from peers with varied backgrounds. Finally, collaborative environments challenge students socially and emotionally as they interact, present and defend their ideas. Within this interaction and cross fertilization of ideas new knowledge is created.

Empirical Issues on Group Dynamic

Extensive studies and research has revealed that when people are working on similar task, the presence of others can enhance performance. This is true with academic and other activities within a group. Johnson and Johnson (1991) discovered that cyclists were faster when they were racing against each other than when the cyclist simply raced against the clock. He argued that the presence of other people especially competitors, act as stimulants to the performer. He

explained that the presence of others lead to psychological stimulation that enhances performance.

Forsyth (1987) conducted an extensive research on social facilitation effects among albino rates. He found out that, there was increased eating among puppies fed in group. As cited in Forsyth (1987), Chen closely observed and measured the excavation efforts of thirty six ants working to build nets alone or in groups. He found that just like the study of humans, each ant began to work and moved more earth when it worked in the presence of other ants than when it works alone. The presence of spectators therefore influences performance.

Away from animals, Johnson and Johnson (1991) tried to find out whether the presence of other people increase or decrease performance on a variety of tasks. They found that on simple tasks, an audience increases speed of performance. They further compared the performance of individuals and groups to see which one was more productive. They found that groups were more productive than individuals.

Michaels et al (1982) also found out that good pool players who had 71% of their shots while being unobtrusively observed did even better 80% when four observers came up to watch them play. Athletes often perform best when energized with the responses of the supportive crowd. Studies of more than 80,000 universities and professional athlete events in Canada, United States and England reveal that home teams win about 6-10 games. The home advantage though stem from familiar environment, less travel fatigue, and increased team identity, so much comes from fans (Zillmann & Paulus, 1993). This clearly shows that people do respond to the presence of others. But does the presence of observers really arouse people? In times of stress a comrade can be comforting nevertheless,

researchers have found out that with others present, people perspire more, breathe faster, tense their muscles more and have higher blood pressure and a faster heart rate (Green & Gange, 1983; Moore and Baron, 1983).

Other studies conducted revealed that in some tasks, the presence of others hinders performance.The presence of others diminishes efficiency at learning nonsense syllables completing amaze, and performing complex multiplication problem (Danshiell, 1930; Pessin, 1933; Pessin & Husband, 1933).These researchers hold the view that the presence of others sometimes facilitates performance and sometimes hinders it. Leon Festinger as cited in Forsyth (1987) stated that groups normally have ways of recovering after failures. Festinger studied groups who predicted about the end of the world and found out that such groups even became stronger with failed prophecies. This investigation revealed that group members normally have to find ways to cope psychologically with their failures in order to maintain self-image and values in their life. This experiment clearly proves that members of a group are willing to accept influence from one another since each one is helping the other.

Groups are a major source of self-definition and self-esteem for individual members. Turner's (1982) social identity theory maintains that a significant portion of self-concept is derived from group membership. Leary and Forsthy (1987) argue that when the group we belong to succeed we feel more positive about ourselves but when they fail, our self-esteem drop.

Wright and Forsyth (1991) examined the continuing influence of group membership in their adolescence period on self-esteem in later life. They discovered that groups produce immediate changes in the individual self-conception, which may never end. When group membership ends individuals who

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once fulfilled basic needs for self-esteem and identity would continue to experience positive consequences of that membership later in life. Some groups do not promote the development of positive self-esteem and identity though they may provide social bounding and expression. It is clear therefore that a group that is effective in providing the needs of its member is likely to have more positive impact in producing lasting change in self-esteem (Forsthy, Elliot and Welsh 1991).

The above discussion clearly indicates that people work harder or better in the presence of others than working alone. This discovery is even relevant with animals as seen from above. This implies that learning in groups will result in excellent academic performance than learning individually. This is because the presence of others psychologically and practically stimulates and effectively enhances performance.

Observations on Social Learning Theory

Johnson et al (1981) explain that the most effective strategy that enhances productivity and academic achievement is collaborative learning. Davidson (1985) examined teaching and learning strategies by reviewing eighty studies in mathematics which compared student's achievements in collaborative learning and whole class traditional instruction .More than forty percent of these studies revealed that students in small-group approaches registered higher performance than whole class.

Some researchers have linked group interaction to achievement and have clearly recommended it to promote effective learning in groups since members offer and receive help from peers (Webb and Cullion, 1983). Webb (1980) further showed that students learned better when they gave explanation during their

interaction with peers than students who did not give explanation though ability was held constant.

Webb and Cullion (1983) also found strong link between interaction and achievement when they investigated the relationship among students' group characteristics and the stability of this relationship overtime. One hundred and five students in the four mathematics classrooms who participated in the two studies confirmed earlier finding that there is strong relationship between group interaction and achievement. This finding therefore suggests that it is prudent to carefully monitor group interaction or change group membership for maximum results.

Rochelle's & Teasley's (1995) define collaboration, as "... a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem" (p. 70).This definition explains three importance of collaboration which include, interactions, processes and effects. A mutual effort of shared understanding does also occur in non-collaborative situations. Shared understanding can be viewed as a process by which peers perform conceptual change interaction or as a condition for conducting effective verbal interactions (Douglas, 1991).

The theory of collaborative learning is concerned with four items: criteria for defining the *situation* (symmetry, degree of division of labour), the *interactions* (e.g. symmetry, negotiability ...), *processes* (grounding, mutual modelling) and *effects*. The key for understanding collaborative learning is in the relations between those four items. At a first glance, the situation generates interactions patterns; these interactions trigger cognitive mechanisms which in turn generate cognitive effects. However, such a linear causality is a simplification.

Reciprocal Relationships in Collaborative Learning

Imel (1991) quoted Bruffee (1987) that adult learning in formal or structured settings, however collaborative, differs from the autonomous learning that adults choose to do because the facilitator usually designs and structures activities to ensure that maximum learning occurs. Thus, it becomes the responsibility of the instructor to create a climate in which collaborative learning can occur. Three important elements to foster collaborative learning in formal settings are the environment, the role of the facilitator, and the role of the learners. Although the three are intertwined, they are discussed separately.

The Collaborative Learning Environment

Collaborative learning can take place only in an environment in which participants feel free to exchange ideas and share experiences in order to create knowledge. Therefore, the environment should be unthreatening and democratic, discouraging hostile competition as well as encouraging mutual respect for the ideas and opinions of others (Sheridan 1989). In other to create this congenial environment, learners must be willing to listen to and respect different views as well as tolerate divergent opinions, engage in discussion and not speech or debate, exercise the authority relinquished by the facilitator, and develop a sense of commitment and responsibility to the group. In turn, facilitators must be willing to surrender complete authority for the learning process and become co-learners with other participants (Bruffee 1987; MacGregor 1990; Romer 1985; see Imel 1991).

Facilitators and learners are jointly responsible for establishing the environment but the facilitator takes the lead. Brookfield (1986) cited in Imel (1991) has observed that one of the facilitator's most demanding tasks is "to assist in the development of a group culture in which adults can feel free to challenge

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one another and feel comfortable without being challenged" (p. 14). Without such an environment, collaborative learning cannot occur.

The Role of the Facilitator in Collaborative Learning

Collaborative Learning calls for a reframing of the traditional teacher's role as the authority and transmitter of knowledge. In collaborative learning, the teacher becomes a facilitator and enters into a process of mutual inquiry, relating to students as a knowledgeable co-learner; authority, expertise, power, and control are redefined (MacGregor 1990; Sheridan 1989) quoted by Imel (1991). It is however difficult for teachers to reconcil their sense of responsibility about course coverage with the commitment to enabling students to learn on their own. Facilitators must develop methods of sharing their expertise without usurping the attempts of learners to acquire their own.

The facilitator needs to prepare learners and plan for collaborative learning. Learners should be prepaed to develop skills in collaboration and acquire enough content background to permit them to work in a collaborative learning situation (MacGregor 1990). In planning for collaborative learning, the facilitator must consider where and in how much of the learning activity collaboration is appropriate; establish and communicate clear objectives; use suitable techniques; prepare content materials, including developing meaningful questions or problems for group work; structure groups; and provide a clear sense of expected outcomes of group work (MacGregor 1990; Sheridan 1989).

The Role of Learners

Collaborative learning also calls for significant role shifts for the student: from listener, observer, and note taker to problem solver, contributor, and discussant; from low or moderate to high expectations for class preparation; from a

private to a public classroom presence; from attendance dictated by personal choice to meeting the expectations of the collaborative learning group; from competition to collaboration with peers; from responsibilities associated with learning independently to those associated with learning interdependently; and from viewing teachers and texts as the sole sources of authority and knowledge to viewing peers, oneself, and the thinking of the group as additional, important sources of authority and knowledge (MacGregor 1990).

Problems and Issues Associated with Collaborative Learning.

Collaborative learning is not without problems. Those most frequently mentioned in the literature include cultural biases towards competition and individualism that militate against collaboration, the traditional class structure which frequently does not allow sufficient time for true collaboration to occur or for group members to establish trust and a sense of group security, the difficulty in providing feedback that accommodates the needs of both the group and the individual, the reluctance of learners to accept their peers as legitimate sources of knowledge, the inability of facilitators to relinquish their traditional role, and the development of appropriate and meaningful collaborative learning tasks (Bruffee 1987; MacGregor 1990; McKinley 1983; Novotny, Seifert, and Werner 1991; Sheridan 1989;cited in Imel 1991).

Empirical Review on Collaborative Learning

Collaborative learning has its origin in a number of movement and philosophies, most of which have influenced progressive adult education. It draws heavily from the school of experimental learning and student centred learning that are based on the work of the philosopher Dewey and social psychologist Piaget and Vygotsky, it also uses information from the field of social psychology

particularly small group theory advanced by Lewin. Critical thinking as a form of education and problem centred learning have also contributed to collaborative learning (MacGregor 1990, Sheridan 1989).   Collaborative learning sees knowledge as a social construction and the shaping and testing of ideas. It stresses that knowledge is something that is created rather than something that is transmitted from the teacher to the learner (Sheridan, 1989).

Advocates of the universal approach to collaborative learning direct all attentions to the link between these instructional techniques and different student's outcomes. Some evidence seems to support this position. Kulik and Kulik (1979) for instance found in their study that class discussion is an important component of collaborative learning which leads to higher cognitive and long term knowledge retention as compared to traditional pedagogy. In a meta- analysis of studies among college students, Johnson and Johnson (1991) revealed positive correlation between cooperative learning and achievement, personal development and social support.

In the field of education, collaborative learning is increasingly becoming the most preferred approach to classroom instruction in most schools and across wide range of disciplines. Studies have revealed that students who studied collaboratively have improved in their academic performance, self-esteem, greater number of positive social skills and fewer negative attitudes (Johnson, Johnson and Holubec 1993; Slavin 1991).

Relationship between Collaborative Learning and Academic

Achievement

Achievement is the desire to meet some internal standard of excellence (McClelland, 1961). People who have a high need for achievement may strive to

do well in any given situation in which there is an evaluation. Such people do not only want to succeed but also to excel in whatever they do. We can find people with high need for achievement in all walks of life (eg. in business, academia and in arts).

McClelland (1961) opines, people with a high need of achievement often set for themselves goals that are challenging and realistic. They may not always succeed but then when failures come, they perceive them as challenges and keep pushing. On the other hand, people with low need for achievement set goals that are so low that everyone else can achieve or those that are so high and unrealistic that no one can achieve them. Additionally, when they do not succeed in something, they are more likely to quit or give up than to persevere.

Holt, Chips and Wallace (1991) as cited by Opare & Eshun (2009) used collaborative efforts to develop a sense of self-worth among students at different levels of proficiency in the English language. They also tried to use the same context to enhance the English language competence of the students. They found that collaborative learning boosted self-worth and also promoted students' feeling of positive regard for one another and consequently enhanced the students' mastery of English.

In a related study at the college level, Gokhale (1995) in Opare & Eshun (2009) concluded that collaborative learning fosters the development of critical thinking through discussion, clarification of ideas and evaluation of other's ideas. He argues that if the purpose of instruction is to enhance critical thinking, and problem-solving skills, then collaborative learning is more beneficial. Opare (2002) in further explanation of Gokhale's ideas by using teacher training college students concluded that students, who studied collaboratively with their peers,

achieved significantly higher in non-recall test items than those who studied individually. Slavin (1987) further noted that besides positive outcomes, collaborative learning promotes students motivation, encourages group processes, fosters social and academic interaction among students and rewards successful group participation.

Collaborative learning enhances academic achievements due to the enhanced self-efficacy that it induces in students. This self-efficacy which is the confidence people have in their ability to succeed makes them attempt challenging task (Bandura 1997). Individuals, who possess a high degree of self efficacy, are more likely to attempt challenging task, to persist longer at them and to exert more effort in the process.

Collaborative learning has also been found to be helpful to low achieving learners. Featherstone (1986) explained that collaborative learning helps learners to succeed at every academic level. He indicated that when low achieving students learn in groups they are able to experience success and all other students can increase their understanding of ideas by explaining them to others. He further explained that when students are given collaborative task, their learning should be assessed individually and rewards given based on the group's performance.

Developing Social Skills through Collaborative Learning

Social skills can be developed through collaborative learning. In fact one of the main objectives of collaborative learning is the development of student's communication and human relations skills. Bruner (1985) contended that cooperative learning methods improved problem- solving strategies because students are confronted with different interpretations of the given situations. This peer support system makes it possible for students to internalize both external

knowledge and critical thinking skills and to convert them into tools for intellectual functioning. Klemm (1994) argued that the team work skills have to be taught to many to facilitate effective group learning and the group processing experience must include the learning of skills needed in leadership, decision making, and trust building, communicating and conflict management. Slavin (1993) maintained that there is enough evidence suggesting that people who learn collaboratively tend to develop greater likeness for their class mates because of their involvement in collaborative learning process.

Dalton and Smith (1986) discovered that the likely benefit of collaboration for all students include, increased academic achievement, cognitive development, improved self-esteem and self-motivation. They contended that collaboration offers the students the skills of working together and enable them to relate more intimately beyond surface relationship with one another such as understanding their differences and respect. Glasser (1986) holds the view that children's motivation to work depends on the extent to which their psychological needs are met. Collaborative learning for him motivates students by producing peer support and making them work together to learn material in great depth and think in more creative ways.

Holt et al (1991) found that students of different levels of English language proficiency in the same secondary school classroom hold different linguistic and cultural diversity. They contended that, learning collaboratively gives students emotional and academic support that may help them persevere against many difficulties likely to be faced in school and learn skills needed for interactive workplace in future.

Cultivating Tolerance and Respect through Collaborative Learning

According to Opare (2002) teachers could cultivate the ability to apply knowledge, analyze issues, and more especially, the ability to work in harmony with others from diverse backgrounds if they adopt collaborative learning strategies in the classroom. He recommended teachers in ethnic prone areas to use collaborative learning strategies to build trust, respect and confidence among students using their mixed abilities. This is because children from opposing groups are most likely to respect the abilities of those they opposed when confronted with a common problem. Collaborative learning could therefore be used as a medium for unifying children who are the future adults and opinion leaders.

Collaborative learning as indicated above is not limited to enhancing academic performance but also practically promotes national integration. Students could also cultivate tolerance and empowered to resolve differences which are necessary ingredients for community living. Collaborative learning no doubt fosters tolerance and mutual respect among learners of different ethnicity and linguistic backgrounds thereby promoting peace and harmony in society.

Relationships between Collaborative Learning and Individual Learning

With advance understanding of learning, educators now place greater emphasis on collaborative learning and the development of participatory learning in communities to promote the social construction of knowledge. Social constructivism is one of the two main approaches within the constructivist view of learning which focuses on the socio-cultural context in which knowledge is built (Richardson, 1997). It argues that learning takes place in a social milieu, within

which the negotiations of shared meaning through social interaction will result in cognitive dissonance, allowing individual learners to restructure their own concepts, (Schifer & Simon, 1992, cited in Richardson, 1997). This implies that cognitive understanding and personal construction of knowledge depend on relations with others and it proceeds from the social to the individual (Vygotsky, 1978).

Gokhale (1995) conducted a study at the college level to examine the effectiveness of individual versus collaborative learning in enhancing drills-and-practice skills and critical thinking skills. The result was that, students who participated in collaborative learning had performed significantly better on the critical thinking test than students who studied individually. Johnson and Johnson (1989) also compared cooperation with competitive and individualistic efforts which typically resulted in producing higher achievements, greater productivity, more caring, supportive and committed relationships as well as greater psychological health, social competence and self-esteem.

In sum, key benefits of collaborative learning to individuals include, helping individuals develop better judgment through the exposure and resolution of previously unshared biases; and enabling adults to draw on their previous experiences by tapping their reservoir of accumulated wisdom and knowledge (Brookfield, 1986; Bruffee, 1987; Novotny, Seifert and Werner 1991)

Influence of Collaborative Learning on Subject Matter Application

Opare (2002) conducted a study on effective learning and found that when students learn collaboratively or discuss issues in groups learning is more effective. Students who learn collaboratively are not only able to state their opinions but support ideas with reasons. This no doubt facilitates and enhances

students' intellectual functioning and thereby explains why students who studied together performed better than their counterparts who studied individually.

The Proponents of collaborative learning argue that the active exchange of ideas within small groups do not only increase interest among the participants but also promotes critical thinking. Johnson and Johnson (1986) contended that there is persuasive evidence that cooperative learners act at higher levels of thought and retain information longer than students who work quietly as individuals. They also become critical thinkers through the shared learning and dicussion they are engaged in.

Enhancing Self-Efficacy through Collaborative Learning

Educationists and psychologists have done extensive research in order to establish the link between collaborative learning and self-efficacy. Opare (2007) explained that collaborative learning enhances academic achievements because of its ability to induce and promote self-efficacy in students.

Self-efficacy is defined (Bandura 1997 p.3) as "belief in one's capabilities to organize and execute the courses of action required in producing given attainments" It is concerned then with judgments about personal capability in a specific domain and individual expectation about capability for performance in future situations. Self-efficacy therefore can determine "how people feel, think, behave and motivate themselves". Self-efficacy is the belief that one is capable of performing in a certain manner to attain certain goals. It has been described in other ways as a concept that has evolved in the literature and in society: as the sense of belief that one's actions has an effect on the environment (Steinberg, 1998).

Collective efficacy is "a group's shared belief in its conjoint capabilities to organize and execute the courses of action required producing given levels of attainment" (Bandura 1997, p. 477). Perhaps it has more relevance and impact when applied in collective cultures such as India, Indonesia or China or in the changing western world (Klassen, 2004).

Bandura (1997) identifies four behavioural mechanisms that are influenced by self-efficacy perceptions; Commitment to challenging tasks, persistence with efforts, staying calm during task performance and organizing thoughts in an analytical manner. People with a high perceived self-efficacy therefore are more likely to display these characteristics and achieve greater levels of success than those who have a low perceived self-efficacy and may; fail to attempt difficult tasks, give up in adverse conditions, become anxious and unable to think clearly.

There is a large amount of diverse research that strongly supports a relationship between measures of perceived self-efficacy and performance. If this is to be accepted it's application to coaching and mentoring as well as many other areas then it is significant. Bandura (1997) for example has it that a coach can increase the self-efficacy of the one being coached by enactive mastery experiences, vicarious experiences, verbal persuasion and physiological states.

Locke & Latham (2002) believe that people have different task goals. They agreed with Bandura, that people with higher perceptions of self-efficacy will often set higher goals and remain more committed to them. Bandura (1995) suggests that a level of optimistic efficacy correlate with optimal functioning. The impact of social networking, collaborative sharing and creation of content is having and will continue to have an impact on the way in which we interact, perform and work towards goals. Bandura (1997) proposed that self-efficacy

makes people have confidence and ability to succeed in given tasks and this makes them to attempt other tasks. Opare (2007) confirmed this by explaining that individuals who possess high degree of self efficacy are more likely to attempt challenging tasks, to persist longer at them, and to exert more efforts in the process.

Academic Self-Concept, Academic Effort and Academic Performance

Self-concept " is the set of perceptions or reference points that the subject has about himself; . . . the set of characteristics, attributes, qualities and deficiencies, capacities and limits, values and relationships that the subject knows to be descriptive of himself and which he perceives as data concerning his identity " (Hamachek, 1981, quoted by Machargo, 1991: 24). It is the set of knowledge and attitudes that we have about ourselves; the perceptions that the individual assigns to him/her self and characteristics or attributes that we use to describe ourselves. It is understood to be fundamentally a descriptive assessment and has a cognitive nuance. Academic self-efficacy refers to a student's belief that he or she can successfully engage in and complete course or specific academic tasks. These include accomplishing course outcomes, demonstrating competency skills used in the course, satisfactorily completing assignments, passing the course, and meeting the requirements to continue on in his or her major plans (Jimenez, 2006).

Vaughn et al., (2001, p. 54) opine. "Self-concept as a construct has had a long history within psychology and education because it provides a gauge to determine the effects of academic and social functioning on the emotional well-being of the individual". It is generally viewed as a valued educational outcome. Self-concept is typically defined as a person's general composite or collective view of themselves across multidimensional sets of domain specific- perceptions,

based on self-knowledge and evaluation of value or worth of one's own capabilities formed through experiences with and interpretations of the environment (Byrnes, 2003; Eccles, 2005; Snow et al., 1996 quoted by Olatunde, 2010).

Academic performance is shaped by students' understanding of their individual learning profile, their self-awareness, their strategic knowledge, and their motivation to expend the effort and persistence needed to learn (Borkowski, Carr, Rellinger, & Pressley, 1990; Swanson, Hoskyn, & Lee, 1999, Wong, 1991; cited by Roditi 2001). Investigation of academic performance in students with learning disabilities, have also provided us with an improved understanding of the difficulties these students experience with strategy execution (Harris & Graham, 1992, 1999; Pressley, Symons, Snydes,& Cariglia-Bull, 1989; Stone & Conca, 1993; Swanson et al, 1999, Wong, 1986, 1987; in Roditi, 2001).

In contrast, effort has not been defined systematically but has been included in definitions of academic motivation as "the ability of the learner to persist with the task assigned, the amount of time spent on the task, the innate curiousity to learn, the feeling of efficiency related to an activity, or a combination of variables" (Poonman, 1997, p. 13, in Roditi, 2001). Roditi (2001) defined effort as a conscious attempt to achieve a particular good through persistence over time. He compared the effort and strategy of students with learning disabilities to those without learning disabilities and noticed that effort was a major contributor to high academic performance of the average achieving group than in the students with learning disabilities.

Within the school domain, studies have suggested that prior *academic achievement* may be an important influence on an adolescent's academic self-

concept. For instance, Marsh and Yeung (1997) found that not only can adolescents' levels of academic self-concept affect their later performance in school, but their self-concepts are also influenced by their prior academic achievement, as indicated by their grades and their test scores. Hence, the relationship between academic self-concept and academic achievement seems to be reciprocal in nature, with each affecting the other. Marsh (1994) also found a link between students' test scores and grades, and their levels of academic self-concept. This means that students who score well on tests tend to receive higher grades in school, which in turn leads to their having higher levels of academic self-concept.

A number of studies have supported the contention that positive self-concept and academic achievement are closely interwoven (Beck, 1984). Fitts (1972) has suggested that persons with optimal self-concept are apt to use their intellectual resources more efficiently. Educators and those involved in improving academic achievement should, therefore, strive to enhance students' self-concept in order to obtain maximum results.

Challenges to this set of assumptions have been posed by recent investigators who have analyzed self-concept and effort in greater depth and have differentiated general self-concept and academic self-concept. Also, an increasing body of research has documented positive general self-concepts and strong levels of effort in students with learning disabilities (McPhail & Stone, 1995; Stone & Conca, 1993 by Roditi 2001).

Gaps in the Literature

The literature is silent on what actually effort is or how to measure effort. With the exception of Osang (1990), Akubuiro and Joshua (2004) whose studies were

done in Nigeria all the others were done outside Africa. A gap is clearly indicated here since no such studies have been done in Ghana except Opare (2002, 2007) which were not at the College of Education level. All these researchers used large samples in different environments and under varied conditions.

Summary

This literature review examined the theories of social learning, internal group dynamics and collaborative learning as well as elements of collaborative learning. Empirical studies on group dynamics, developing social skills and collaborative learning have also been described. The review revealed that social learning theory was derived from the work of Cornell Montgomery (1843-1904) which proposed that social learning occurred through four main stages of limitations namely close contact, imitation of superiors, understanding of concepts and role model behaviour. Rotter (1954) and Bandura (1977) who expanded on Rotter's idea as well as earlier work by Miller and Dollard (1941) which is related to the social learning theories of Vygostky and have built on the social leaning theory really contributed in clarifying critical issues that are related to social learning theories. Bandura's (1979) and Vygotsky's (1987) social learning theory as well as Lewin's (1948) group dynamics produced the concept collaborative learning. The relationships between collaborative learning situations were also described. These include relationship between collaborative learning and academic achievement; social skills, tolerance, individual learning, subject application, and self-efficacy. Others include: the relation between academic self-concept and academic ability, and academic effort and academic performance.

The literature revealed conditions necessary for successful collaborative learning such as positive interdependence, group processing, individual

accountability, shared leadership, promotive interaction, equal participation and social skills. The review also revealed that both facilitators and learners are jointly responsible for creating a congenial environment for successful collaborative learning and that the facilitator takes lead in creating group culture (Brookfield, 1986). It also called for the roles of the learner to be shifted from listener, observer and note taker to problem solver, contributor, and discussant (MacGregor, 1990). The review also revealed that academic effort needs to be defined more carefully, measured more accurately, and explain what efficient effort is.

In sum, the empirical studies showed that collaborative learning is an effective instructional strategy that has worked well to satisfy the needs of different students at different levels. Collaborative learning as seen in this review is very beneficial as it enhances self-efficacy, critical thinking, high academic achievement and productivity, and the development of social skills among others.

CHAPTER THREE

METHODOLOGY

This chapter describes population, sample and method of sample selection. It also describes the research design, instruments used and procedures followed in data collection.

This study was preceded by an assertion that revealed that students of Bimbilla College of Education usually performed below average in the semester examinations. As a tutor of the college, I also observed that the students generally have poor attitude towards learning. It was also noticed that students could not manage their time well as low academic achievers. This was because students appeared to have no specific study schedules. This was observed during casual inspection of students'studies time. As if it were co-incidence, the college organized seminars on time management and study skills in October 2009 to enhance the study skills of the students. Later in November 2009, students were encouraged to study in collaborative groups as a step-up effort to enhance their academic performance.

Research Design

The research design selected for this research is a correlation research and specifically a case study since the study is based on only E.P College of Education, Bimbilla. The study aims at finding out whether there is any relationship between students' perception of the internal dynamics of their collaborative learning groups, effort made and academic performance.

Population

The target population was students of E. P. College of Education, Bimbilla, numbering 460. The composition of this number included 240 level 100 students of which 44 were females and 196 were males. The level 200 students were 220. Out of this were 54 females and 166 males. One hundred and fourty (140) of the level 200 students offered General Arts programme while eigty (80) of them offered Science and Mathematics programme.

Sample Size

The sample size for the study was 140. This was purposively selected from the entire student populatio of the college. All 140 level 200 General Arts students were the respondents of the study. Since they were more than their counterparts in the Science and Mathematics programme, their number (140) can be representative of the student propulation. Besides, the General Arts students were actively engaged in collaborative learning. The sample size was also proposionally selected to corespond with the number of females and males in the 140 stdents of the General Arts Progrmme.

Instrumentation

The principal research instrument used in this research is questionnaire. The instrument was designed by the researcher to collect data from the sampled students.

Questionnaire, according to Amedahe (2002), consists of a list of questions or statements relating to the aims of the study, the hypotheses and research questions to be verified and answered of which the respondent is required to answer by writing. The questionnaire contained close-ended and open-ended items in two sections. The items in section A were on personal data whilst in section B

the items were centered on group internal dynamics, self-concept and effort. Open-ended and close-ended items were used to enable the researcher obtain as much detail information as possible from the respondents. The close-ended items had options from which the respondents could choose (in the case of the likert-scale type). The options were arranged in a six-point form low to high order such as never, seldom, occasionally, some of the time, most of the time and always.

The open-ended items did not have pre-determined set of responses and thus the respondent was at liberty to provide any information he/she deemed fit. The intention was to allow the respondents to think and describe the reason in their own words. The open-ended items therefore were to ensure a wider variety of responses that reflect opinions of respondents. Easterby-Smith, Thorpe and Lowe (1991) suggest that this increases the possibility of the researcher obtaining unanticipated perspectives and insightful suggestions on issues that were not predicted. Similarly, Fraenkel and Wallen (2000) opine that open-ended items allow more freedom of response, they are easy to construct and permit follow-up by researchers. However, Fraenkel and Wallen add that open-ended items are disadvantageous for reasons such as: responses tend to be inconsistent in length and content across respondents; both questions and responses are subject to misinterpretation; and they are harder to tabulate. Since it is difficult to tabulate and perform statistical analysis on open-ended items, the researcher grouped similar responses together before applying statistical analysis on the responses.

The close-ended items provided a set of options for the respondents to choose from. This is because it is very easy to answer close-ended items. Respondents could rush through without taking any time to think about the options before answering them. Fraenkel and Wallen (2000) point out that the close-ended

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item "enhances consistency of response across respondents, easier and faster to tabulate and more popular with respondents" (p. 440).

The researcher thought it wise to use both open-ended and close-ended items in order to reduce tension and fatigue during the data analysis. This combination of both open-ended and close ended questions was to make it relatively easy for respondents to respond to the items without tiring them out.

According to Kerlinger (1973), the questionnaire is widely used for collecting data in educational research because it is effective for securing information about practices and condition for inquiring into the opinion and attitudes of respondents. Koul (1997) noted that questionnaire is a popular means of collecting all kinds of data in research. He explained that it is usually used in educational research to obtain information about certain conditions and practices and inquire into opinions and attitudes of individual or a group. Nwana (1981) on the other hand outlined some merits of questionnaire over other instruments. He stated among other things that questionnaire is useful if the respondents cannot give information in the project unless complete anonymity is guaranteed. He also explained that questionnaires are useful if the population is widely distributed geographically and not enough time and personnel and other resources are available for data collection. He added that questionnaire is appropriate if the respondents need to look up some records to be able to respond appropriately. Koul and Nwana therefore provided enough reasons for the researcher's choice of questionnaire over other instruments.

Though Fraenkel and Wallen (2000) critique that questionnaire may be unclear or seemingly ambiguous and may be responded wrongly, or may not give respondents chance to react verbally to the items of particular interest or

importance, the researcher used it because he could give it to large number of students at the same time. Section A of the questionnaire collected personal data of respondents. Section B elicited information from students on whether they were engaged in collaborative learning, reasons for involving themselves in it and benefits gained. Section B also had questions on group membership which include items on group processing, interaction, interdependence, social skills, equal participation, leadership, accountability, self-concept and efforts. Students were made to indicate the extent to which they practice these in their groups or otherwise. The researcher also used common, everyday language in constructing questionnaire items to facilitate understanding.

Data Collection Procedure

The main procedure used to collect data on the relationships between students participating in collaborative learning and academic performance was structured questionnaire. It is generally described as the oldest and the most respected conversation between researchers and respondents despite their shortfall of misinterpretations of items and probable high mortality rate (low return rate), the questionnaire was found to be the most appropriate instrument. The questionnaires for the sampled students were hand-delivered to them by the researcher. The administration of the questionnaire was done in the students' classroom. The purpose of the study was explained to them. They were also taken through all the questionnaire items and anything that was not clear was explained to them. They were given the opportunity to ask questions and seek clarification on any item that might seem ambiguous to them.One hundred and fourty (140) questionaires were given out. They were given ample time to independently respond to the items at their own convenience. All one hundred and forty (140)

answered questionnaires were retrieved from the respondents the same day. The return rate was very high, 100%. The high percentage of the retrieval of the answered questionaire resulted from good measures put in place to ensure high rate of return

Pre-Testing of Questionnaire

The questionnaire was pre-tested to determine the validity and reliability of the items before using them for the actual study. This was done to solve some of the problems of questionnaire as indicated by Fraenkel and Wallen (2000) is that a pre-test of the questionnaire " can reveal ambiguities, poorly worded questions that are not understood, and unclear choices, and can also indicate whether the instructions to the respondents are clear" (p. 441). This well advised the researcher to try the questionnaire out with 10 students from Science and Mathematics programme of E. P. College of Education, Bimbilla who weren not part of the study. The pilot test enabled the researcher to assess the appropriateness of the questionnaire items and to verify whether the items could easily be read and understood.

Both face and content validity of the items were determined and established following a rigorous assessment of the items to find out their appropriateness as far as the research items are concerned. In addition, most of the items were designed such that respondents were only required to tick although a few others gave the respondents the opportunity to express their views beyond the close-ended options. This helped to determine the clarity of the instrument, the problems to be encountered in the main administration and the reliability of the instrument. It also helped to test the planned statistical methods for the data analyses. After a critical examination of data obtained, through the pilot study, a

few questions which were not clear were reframed. These were retested on few students who were part of the sampled population and responses were in line with expectation. This was justified on the grounds of ascertaining the reliability of the questionaire.

Data Analysis Procedure

The completed questionnaire were collected and edited for consistency. The key responses given by the respondents were prepared from the master list for the open-ended items. Both descriptive and inferential statistics were used to analyze obtained data. Percentages and mean values were calculated. The Pearson's product moment correlation was the main inferential statistics used to determine the relationship between students' perception of the internal dynamics of their collaborative learning groups and academic performance as well as effort made.

All the research questions were designed to address specific issues of the research. The discussion of the research questions were preceded by explanation of demographic information.

One of the items was designed to find out whether students actually engaged in collaborative learning. Items of the questionnaire were analyzed using frequency and percentage distribution. Research question one was concerned with students' perception of the internal dynamics of their collaborative learning groups. Data yielded by the frequency and percentage distribution of items 3 to 12 produced answers for this question. Research question two was to find out the extent of students' perception of internal dynamics and how their academic performance is related. Pearson's product moment correlation was used to analyze the data because all the data were measured on a six point likert-type scale.

Question three was to find out the extent to which student's self-concept of academic ability and their perception of the internal dynamics of their collaborative groups are related. Here again Pearson's product moment correlation was used since they were all on six point likert-type scale.

Question four was to find out the extent to which students' self-concept and their academic ability are related. The same Pearson's correlation product moment was used to analyze the data.

The purpose of question five was to find out the relation between students academic effort and their academic performance. Pearson's correlation was again used to analyze the data.

CHAPTER FOUR

RESULTS AND DISCUSSION

This Chapter presents the results and discussion. The results reported on and discussed here are based on the answers for the research questions. The data analysis was first done to determine the distribution of respondents by gender and age. The distribution of the respondents by gender is presented in Table 1.

Table 1: Distribution of respondents by gender

Valid	No.	%	Valid Percent	Cumulative Percent
Male	88	62.9	62.9	62.9
Female	52	37.1	37.1	100.0
Total	**140**	**100.0**	**100.0**	

As the data in Table 1 show, males outnumber females in the sample by a wide margin of (36)25.8% of male over females. This is not strange, since in the student population of E.P. College of Education, Bimbilla, there are more males than females, and also because the sample was selected on a proportional basis.

The next item under discussion is age. The distribution of the respondents by age group is presented in Table 2.

Table 2: Distribution of respondents by age group

Age Range	No.	%	Valid Percent	Cumulati Percent
Valid less than 21	14	10.0	10.1	10.1
21-25	87	62.14	62.6	72.7
26-30	36	25.7	25.9	98.6
31+	3	2.1	2.14	100.0
Total	**140**	**100.0**		

As the data indicate in table 2, the modal group is 21-25 year-old group (62.6%). This is an indication that the respondents are quite matured in terms of age.

The need to know the statistics of students' engagement in collaborative learning was considered. Respondents were asked if they belonged to a collaborative learning group. This was necessary to obtain information about the number involved for accurate analysis. The responses are indicated in Table 3.

Table 3: Distribution of respondents in collaborative learning groups

Item	No.	%	Valid Percent	Cumulative Percent
Yes	137	97.9	98.6	98.6
No	3	2.1	1.4	100.0
Total	**140**	**100.0**		

From Table 3, it is clear that 98.6% (137) of the respondents indicated that they were engaged in group learning whilst 2.1% (3) were not. This indicates that almost all the respondents learn collaboratively.

Answers to the Research Questions

The data analysis was guided by five research questions. The data and the results producing the answers for the research questions are presented in the sections that follow.

Research Question: 1

What is students' perception of the internal dynamics of their collaborative learning contexts?

To get an answer for this research question, respondents were asked whether in their perception the following situations characterized their collaborative learning contexts. The conditions are mutual interdependence, promotive interaction, group processing, social skills, equal participation, individual accountability and shared leadership. The perceptions are presented in Table 4. Students were asked whether they perceived that the success of the whole group depended on the success of the individuals in the group. Respondents were required to indicate on a six point likert scale whether interdependence existed in their collaborative learning contexts.

Table 4: Respondents' perception of their collaborative learning contexts

Conditions	Positive Perception		Negative Perception	
	No.	%	No	%
Mutual interdependence	117	83.7	23	16.3
Promotive interaction	123	87.8	17	12.2
Group processing	119	85.0	21	15.0
Social skills	86	61.3	54	38.7
Equal participation	121	86.4	19	13.6
Individual accountability	91	64.9	49	35.2
Shared leadership	114	81.4	26	18.6

Table 4 presents the responses. In Table 4, we see that the majority of the student (117 representing 83.7%) perceived that positive interdependence exists in their learning groups. On the other hand only 23 respondents representing 16.3% did not see any interdependence working in their groups. This answers the question whether members of the group perceive that the success of individuals depended on the success of the group. This confirms the assertion of Opare (2007) that the heart of collaborative learning is interdependence which means members of the group depend on each other so much such that they either swim or sink together depending on the total effect of individual efforts.

With regard to promotive interaction, the respondents were asked to indicate whether or not this condition characterized their group learning context. From Table 4, we can see that majority of the respondents (123 or 87.8%) indicated, that they used questioning and discussion to help solve their learning

problems and to promote interaction whilst 17 respondents representing 12.2% gave negative responses.

Group processing is one of the characteristics of good collaborative learning contexts. Respondents were asked to indicate on a six point likert scale extent to which their learning group contexts were characterized by this condition. The responses to this question as indicated in item 6 show clearly that majority of the respondents (119 or 85.0%) gave positive responses that the success of their groups and their members were constantly monitored. The views of the majority seem to confirm the idea of Opare (2007) that self evaluation and monitoring of individuals and group members is necessary for effective collaborative learning.

The question on social skills was intended to find out from students whether they had any mechanism put in place in their peer learning group to motivate, criticize or reward members. Respondents were asked to indicate on a six point likert scale whether or not they had a way of rebuking lazy members and for rewarding hard working members. The responses of the students as presented in Table 4 has 86 (61%) majority positive responses to the question as against 54 (38.7%) negative responses. The high percentage of 61.3% positive responses confirms the findings of Johnson and Johnson (1991) that peer interaction promotes the development of social skills such as leadership, decision making, trust building, communication and conflict management.

Students were asked in this question to describe the condition of participation. Respondents were asked to indicate whether in their groups members were tasked equally from time to time to search for information to share with group members. The responses in Table 4 (item 5) indicated that majority 121(86.4%) said that task was equally distributed to group members. This positive

majority response confirmed the findings of Opare (2007) that in a group activity every member must feel that everybody is important and for that matter equal participation in the group activity is necessary for the success of the group.

One of the things that characterizes group dynamics that students were asked to measure is individual accountability. Respondents were to indicate whether each member of their groups was accountable to the group for task assigned to them. The 64.9% positive responses presented in Table 4 show that most of the learning groups had high individual accountability. However, some groups did not perceive any individual accountability.

Group activities are best carried out through shared leadership or roles (Doyel et al, 2001). Shared leadership was one of the criteria used to measure or evaluate the quality of the collaborative learning of the students. Students were to describe on a six point Likert scale whether leadership in their groups was fairly distributed. The results in the Table (item 7) present the answer. The positive responses of 114 representing 81.4% shows that most of the groups had their leadership roles fairly distributed. On the other hand 26 representing 18.6% of the respondents did not view leadership in their groups as shared responsibilities but rather rested in only a few individuals.

The answer to research question one is that the respondents of the sample generally had positive perception of the internal dynamics of their collaborative learning contexts since almost 80% gave positive responses.

Research question: 2

To what extent are students' perception of the internal dynamics of their collaborative learning groups and their academic performance related?

To arrive at an answer for this question, zero-order correlations between academic performance and the variables indicating the internal dynamics were computed. These are presented in Table 5.

Table 5: Correlations between academic performance and internal dynamic variables

Items	Correlation Co-efficient (R)		
	Mathematic	**English**	**Science**
Positive interdependence	-.121	-.013	-.013
Promotive interaction	-.117	.041	-.116
Social skills	-.097	-.154	-.127
Group processing	.007	-.077	-.123
Equal participation	-.040	-.157	-.231 (**)
Individual accountability	-.111	.066	.152
Shared leadership	.013	.144	-.080

* Correlation is significant at the 0.05 level (2-tailed).

The answer to reseach question two lies in the responses given by the respondents regarding the extent to which they felt their membership with a collaborative learning group boosted their academic performance. In other words they were required to assess themselves and point out whether their learning with peers has enabled them to improve on their academic performance or not.

The data in Table 5 show clearly that there is virtually no correlation or relationship between academic performance and those variables representing the

internal dynamics. The exception is that equal participation correlated with academic performance. This correlation, however, is negative, which suggests that even though the perception is positive, academic performance is low. The lack of correlation between these variables and academic performance is not strange. First from Table 5, one can see clearly that an overwhelming number of the respondents positively perceived the internal dynamics of their peer learning groups.

Therefore there is very little variation in the distribution of the respondents by the way the internal dynamics were perceived. That is when most of the respondents appear to be making almost the same responses, the correlations cannot be significant. Neither can they be strong. The conclusion in response to research question two is that there is no significant relationship between one's perception of the internal dynamics of one's group learning and one's academic performance. Thus there is no direct relationship between the way one perceives the internal dynamics on the one hand and one's academic performance on another.

Research Question: 3

To what extent is students' academic self- efficacy related to their perception of the internal dynamics of their collaborative learning context?

To answer this question the respondents were asked to describe whether their membership in a collaborative learning group had boosted their academic self-efficacy. In other words they were to assess themselves and indicate whether the effort they made by learning with peers influences their academic self confidence. The responses are shown in Table 6.

Table 6: Relationship between academic self-efficacy and internal dynamics variables

Academic self-efficacy	Interdependence: r =. 168*
	Group processing: r=. 058
	Interaction: r=.193*
	Equal participation: r =. 085
	Accountability: r =115*
	Shared leadership: r =155*

To answer reseach question three, the correlation between academic self-efficacy and the various variables indicating the collaborative learning context were computed. The results are shown in Table 6. The data in the Table 6 show that academic self-efficacy is related to the way students perceive the internal dynamics of their collaborative learning context. The exceptions are with the group processing and equal participation.

The answer to research question three is that academic self-efficacy is moderately related to the way students perceive their internal dynamics of their collaborative learning context. In other words, participation in collaborative learning tends to boost students' academic self-efficacy moderately.

Research Question: 4

To what extent is students' academic self-efficacy related to the academic effort they make?

This question was to find out the extent to which students' academic self-efficacy and the academic effort they make are related. To this end, respondents were asked to agree or disagree with a statement indicating high or low sense of self- efficacy. The responses are showed in Table 7.

Table 7: Frequency Distribution of Responses on Academic Self-Efficacy

		No.	%	Valid Percent	Cumulative Percent
Valid	Totally Disagree	3	2.1	2.14	2.14
	Strongly Disagree	3	2.1	2.14	4.28
	Disagree	3	2.1	2.14	6.42
	Agree	31	22.1	22.14	28.56
	Strongly Agree	70	50.0	50.0	78.56
	Totally Agree	30	21.4	21.44	100.0
	Total	**140**	**100.0**	**100.0**	

The data in Table 7 indicate that about 93.1% of the respondents show a high sense of academic self-efficacy. This is a sum of those who agree, strongly agree and totally agree.

The respondents were also asked to indicate the number of hours they devoted to private study each week. The responses are indicated in the frequency and percentage distribution shown in Table 8.

Table 8: Effort made on personal studies

Time in Hours		No	%	Valid Percent	Cumulative Percent
Valid	0-1	44	31.4	31.4	31.4
	2-3	13	9.3	9.3	40.7
	3-4	16	11.4	11.4	52.1
	4-5	16	11.4	11.4	63.6
	5-6	22	15.7	15.7	79.3
	6+	29	20.7	20.7	100.0
	Total	**140**	**100.0**	**100.0**	

The data in Table 8 indicate that only about 48% of the respondents spent 4 hours or more each week doing private studies. This suggests that academic effort is limited.

It means the majority of the students did not spend enough time studying on their own and hence did not make adequate effort towards learning on their own. This may be a major factor contributing to their abysmal academic performance in their semester examinations. This is not an isolated case because it, somehow, confirms what Roditi (2001) found after comparing the effort and strategies of students with learning disabilities to those without learning disabilities and concluding that effort was a major contributor to high academic performance of average students. This simply means that if students of E P College of Education, Bimbilla had made adequate effort they would have improved greatly in their academic performance. The correlation between self-efficacy and effort was found to be positive but moderate (r = .278)

The answer to research question 4 is that self-concept of academic ability and academic effort is moderately related.

Research Question: 5

To what extent is students' academic effort related to their academic performance?

To answer this question the correlations between efforts (measured in terms of number of hours spent in studying) and grades in English, Mathematics, and Science were found. The zero-order correlations are presented in Table 9.

Table 9: **Correlation between Effort and Performance Correlations**

		Effort	Grade in Mathematics	Grade in English	Grade in Science
Effort	Pearson Correlation	1	.107	-.001	.167(*)
	Sig. (2-tailed) N		.207	.991	.049
	Total	140	140	140	140
Grade in Mathemat	Pearson Correlation	.107	1	474(**)	.564(**)
	Sig. (2-tailed) N	.207		.000	.000
		140	140	140	140
Grade in English	Pearson Correlation	-.001	474(**)	1	.376(**)
	Sig. (2-tailed) N	.991	.000		.000
		140	140	140	140
Grade in Science	Pearson Correlation	.167(*	.564(**)	.376(**)	1
	Sig. (2-tailed) N	.049	.000	.000	
		140	140	140	140

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The data in Table 9 show that in this study effort and grades are hardly related. For example in the case of the entire three subjects the only significant correlation is effort and performance in science (r =.167*). The rest are all weak and non-significant.

The above is the answer to research question five. These weak and non-significant relationships could be attributed to the obvious lack of effort by students. For example none of the students spent more than three hours a week studying on their own.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter contains the summary of the entire research work. Findings, conclusions drawn from the findings, as well as recommendations are presented. Also, suggestions for further reseach are presented.

Summary

The purpose of the research was to find out whether there is any relationship between students' perception of the internal dynamics of their collaborative learning contexts on the one hand, and effort and academic performance on the other, of students of E. P. College of Education, Bimbilla.

The sample size used was one hundred and forty (140) level 200 students of E. P. College of Education, Bimbilla. The sampling technique employed was purposive sampling. This technique was adopted because the researcher's target was students who were engaged in collaborative learning.

The questionnaire was the main tool for data collection. The items were both closed-ended and open-ended.The statistical methods used for data analysis were frequency distributions, percentages, and Pearson's product moment correlations.

The main findings of the study as yielded by the answers to the research questions are presented in this section. The first research question was on students' perception of the internal dynamics of their learning groups. The question was designed to specifically find out students' perceptions of the internal dynamics of

their collaborative learning groups. Respondents used conditions such as interdependence, interaction, group processing, social skills, equal participation in, individual accountability and shared leadership to describe their collaborative learning context. The answers to these seven items were very high, positive responses ranging from 60% to 90%. This is an indication that the respondents perceived the internal dynamics of their collaborative learning context in positive terms.

Research question two was on the extent to which students' perception of the internal dynamics of their collaborative learning contexts related to their academic performance. Students were required to point out how learning with peers has enabled them to improve on their academic performance. No correlation between academic performance and the internal dynamic variables was found except in the case of equal participation versus performance in science which has a correlation of 0.231, significant at 0.05. The answer then is that the way students perceive the internal dynamics of their collaborative learning contexts does not bear a direct or linear relationship with their academic performance.

Students were required to answers research question three by describing the extent to which their academic self- efficacy related to the perception of the internal dynamics of their collaborative learning contexts. The answer produced from the responses was that academic self-efficacy is moderately related to the way students perceive the internal dynamics of their collaborative learning context.

Research question four sought to explain the relationship between the students' self-concept of academic ability and their academic efforts. The answer was that students' self-concept of academic ability and their academic effort are

moderately related since the correlation co-efficient was r=.278 significant at 0.5 which is a positive relation.

Research question five was designed to find out the relationship between students' academic effort and academic performance. It was realized that academic effort and grades in Mathematics, English and Science are hardly related.

Conclusions

The purpose of the study was to find out if there was any relationship between students' perception of the internal dynamics of their collaborative learning contexts, effort made and academic performance. Based on this, and the answers to the research questions, the following conclusions can be drawn.

The conclusion is that even though most of the students belonged to collaborative learning groups, and even though they perceived their learning contexts in positive terms, there was hardly any relationship between the way they perceived their learning contexts and their academic performance, nor was self-efficacy and effort related. Effort and performance were not related because most of the students indicated putting in limited effort in their studies.

Recommendations

The key finding in this study is that there is no correlation between the academic effort students make on the one hand and their performance in Mathematics, English and Science. This tends to suggest that students did not make sufficient effort in learning those subjects. On the basis of this, it is recommended that the authorities in E.P. College of Education, Bimbilla should encourage students to spend more time on their own learning to improve their academic performance in those subjects. This can be done by conducting remedial classes and quiz competitions for students to motivate them to learn. The school

should also create an enabling environment that will support students to spend more time on private studies. This could also be done by providing good library and internet facilities as well as conduicive and well furnished classrooms with good lightening system to facilitate effective learning.

Suggestions for Further Research

Since this study delved into the link beween group learning and academic performance, it will be a step in the right direction to research into the relationship between individual learning effort and acadmic performance.

Again, further research is suggested into why students make insuficient effort in learning English, Mathematic, and Science resulting in poor performance of these subejects-a key finding of this study.

Further research could investigate whether effort is efficient when it is flexible, guided by strategies, and well adapted to the task demands.

Finally, the relationship between ability, interest, and effort needs additional research as the interactions between these processes may help us to understand the complex relationships that affect the performance of low achieving students.

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APPENDICES

APPENDIX A

QUESTIONAIRE FOR STUDENTS OF E.P. COLLEGE OF

EDUCATION BIMBILLA

This questionnaire is being used for a study by a student in the Faculty of Education, University of Cape Coast. It is meant solely for academic purposes. You are therefore assured of confidentiality and annimosity.

You are, therefore, kindly requested to answer all questions that follow as frankly and openly as possible.

 Thank you in advance.

SECTION 'A': PERSONAL DATA

Please **tick [√]** against the one which is applicable to you.

 1. Gender:

 Male [   ]

 Female [   ]

 2. Age (in years)

1. Less than 21 [   ]

2. 21-25 [   ]

 3. 26-30 [   ]

4.31+ [   ]

SECTION 'B': GROUP MEMBERSHIP

3. Do you have a study group or groups that you often study with?

YES [   ] NO [   ]

Please provide short statements in response to question 4.

 4. Why did you join a study group?

…………………………………………81…………………………………………

…………………………………………………………………………………

…………………………………………………………………………………..

Please select the alternative below that best describes your opinion about your group (Q5-Q14).

INTERDEPENDENCE

5. Each member of my group believes that the success of the whole group depends on the success of each individual member of the group.

1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

PROMOTIVE INTERACTION

6. In my study group, we use questioning and discussions to help us overcome our learning problems.

1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

SOCIAL SKILLS

7. In my study group, we have our ways of rebuking lazy members and for

rewarding hard working members.

 1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

GROUP PROCESSING

8. In my group, we constantly examine ourselves to make sure we are

progressing in our studies.

1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

EQUAL PARTICIPARTION

 9. In my study group, each member is asked from time to time to search

for information to explain or share with members.

1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

INDIVIDUAL ACCOUNTABILITY

10. In my study group no member hides behind the back of any member to

make almost no contribution.

1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

SHARED LEADERSHIP

11. In my study group, any member who is leading the discussion at any

time is the leader at the time.

1. Never   [   ]

2. Seldom   [   ]

3. Occasionally   [   ]

4. Some of the time   [   ]

5. Most of the time   [   ]

6. Always   [   ]

ACADEMIC SELF-EFFICACY 1

12. My membership in the study group has boosted my confidence in

myself.

1. Totally disagree   [   ]

2. Strongly disagree   [   ]

3. Disagree   [   ]

4. Agree   [   ]

5. Strongly agree   [   ]

6. Agree totally   [   ]

ACADEMIC SELF-EFFICACY 2

13. I have learned through group study that I am capable of doing well in

my studies.

1. Totally disagree   [   ]

2. Strongly disagree   [   ]

3. Disagree   [   ]

4. Agree   [   ]

5. Strongly agree   [   ]

6. Agree totally   [   ]

EFFORT

14. On the average, for how many hours a week do you study on your

own?

1. 01   [   ]

2. 02   [   ]

3. 03   [   ]

4. 04   [   ]

5. 05   [   ]

6. 6+   [   ]

Please, do not answer question 15.

15. CGPA…………………………………

Final results at grading point in classes for 2007-2009

Year	CGPA	1st Class	2nd Upper	2nd Lower	3rd Class	Pass	Referrers
2007	3.6-4.0						
	3.0-3.5						
	2.5-2.9						
	2.0-2.4				20		
	1.0-1.9					123	
2008	3.6-4.0						
	3.0-3.5		1				
	2.5-2.9			4			
	2.0-2.4				78		
	1.0-1.9					60	6
2009	3.6-4.0						
	3.0-3.5						
	2.5-2.9			6			
	2.0-2.4				52		
	1.0-1.9					32	

Appendix C

E. P. College of Education-Bimbilla

Entry Behaviour of Students with Grade in Core Subjects

Admission records of 2008 and 2009

Year	Subject	G	R	A	D	E
		'A'	**'B'**	**'C'**	**'D'**	**'E'**
2008	English	-	-	13	**30**	**197**
2008	Maths	1	28	53	**61**	**93**
2008	Science	-	11	44	**80**	**105**
2009	English	-	2	85	**79**	**143**
2009	Maths	3	35	103	**64**	**106**
2009	Science	-	29	74	**78**	**122**

**E. P. College of Education, Bimbilla Staff Development and Progress
Report 2007-2010**

Year	No of staff l	No left for ate studies	Percentage
2007	30	4	13.3
2008	32	7	21.9
2009	32	7	21.9
2010	32	6	18.8
Total	32	24	75.9