Erizar
Mohd Nazri Bin Latiff Azmi
Suharman

The New Paradigm

For

TEACHING ENGLISH

Editors :
Andi Syahputra
Dewi Puspitasari

UNIMAL PRESS

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Judul: **THE NEW PARADIGM FOR TEACHING ENGLISH**
x + 74 hal., 15 cm x 23 cm

Cetakan Pertama: Januari, 2019

Penulis:
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Perancang Sampul &
Penata Letak: **Eriyanto**
Pracetak dan Produksi: **Unimal Press**

Penerbit:

Unimal Press
Jl. Sulawesi No.1-2
Kampus Bukit Indah Lhokseumawe 24351
PO.Box. 141. Telp. 0645-41373. Fax. 0645-44450
Laman: www.unimal.ac.id/unimalpress.
Email: unimalpress@gmail.com

ISBN: **978–602–464-064-4**

Acknowledgement

This work would not have been possible without the financial support of STAIN Teungku Dirundeng Meulaboh. We are especially indebted to Dr Syamsuar,M.Ag who have been supportive of our goals and who worked actively to provide us with the protected academic time to pursue those goals. We are grateful to all of those with whom we have had the pleasure to work during this and other related book. Academics of STAIN Teungku Dirundeng Meulaboh has provided us extensive professional guidance and taught us a great deal about both scientific research and life in general..

Nobody has been more important to us in the pursuit of this book than the members of our families. We wish to thank to our editors for their hardworking and contribution. Most importantly ,we would like to thank my parents, whose love and guidance are with us in what ever we pursue. They are the ultimate role models.

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CHAPTER 1.
Language and Students' Learning Motivation

Languge is the most important and at the same time most mysterious product of human mind. It is code of sound to which the particular meanings are attached. By using these codes, human beings organize their activities, explain their ideas and enhance their knowledge. It is a system of vocal symbols that is used by human beings as a member of social group to participate in a culture, interact and communicate (Behlol, 1999). Linguists have defined language in different ways. Some of the definitions are as under:

A. Definitions of Language

i. Language is defined "as an artificial and consciously organized method of contact by the use of symbols or convention, which involves the notion of meanings

ii. Oller defines, "Language is the relationship between form and meanings, and is instrument of communication among the human beings" (Minkova and Stockwell,2001)

iii. The words, their pronunciation, and the method of combining them, are used and understood by considerable community and established for a long time" (Oxford Dictionary)

iv. Language is the expression of ideas by means of speech sounds combined into words, words are combined into sentences" (Minkova and Stockwell, 2001).

v. Language is a system of arbitrary symbols which have been agreed upon by the group of people. It is series of sounds strung together to convey meanings to listener.

B. Variations in the Same Language

As stated by Minkova and Stockwell (2001), the same language varies from place to place because of geographical and sociological factors. Variation in the "dialect" involves differences in the pronunciation, vocabulary and the arrangement of the words. The

next variation is because of register. It is the differences on the basis of profession. The language of the teacher is different from the language of lawyer; and the language of the lawyer is different from the language of artist. These variations are because of register. The next difference is in the style of language. It is based on the level of formality and education standard of the speaker.

C. Origin of the Language

According to Minkova and Stockwell (2001), the problem about the origin of human speech still cannot be explained. There are different opinions on the topic, in which some believe that it is a gift from gods. Darwin viewed that language was developed by unconsciously mimicking the gestures of the hand. Some believes that the basis of language is human noises to express fear, danger, pleasure, anger, love and hatred. With the passage of time, these noises are organized in formal way to shape language.

Language travels with the people who speak it. There is no language in the world, which is genetically pure because people are traveling frequently from one place to another, and interacting among themselves. The advancement in the field of the communication has made the world as a global village as the whole world has to interact among one- another. It is an era of cultural and racial cohesion (Behlol, 2009).

Minkova and Stockwell (2001) also added that Celts were the natives of the land, which is known by the name of Britain according to Ecceslesiastical History of English people, written by the English cleric Bede. It dates the first landing of Germanic warriors in Britain in the year 449. This was the year identified by the Historians as the birth of English language.

The Continental Historians made brief remarks in fifth century chronicles that Saxon tribes were invited by the natives (Celts) for their defense as an attack from the Northern side. In return of their services, they were allowed to settle in the Eastern part of the country. The Angels, Saxons and Jutes came to Britain, and from the name angels' land that was latter to be known as England. In this way, the history of English language is divided into following periods.

Table 1 : The Development of the English Language

No	Language Nomenclature	Period
01	Old English	450 to 1066.
02	Middle English	1066 to 1476.
03	Early modern English	1476 to1776.
04	Modern English	1776 to Present

(Source: *Minkova and Stockwell, 2001*)

Moreover, many English words used in old English surviving today can be traced back to Indo- European parent language. They denote natural phenomena, plants, animals, kinship terms, verbs about basic human activities, and adjectives for essential qualities, numerals, and pronouns. For example, the words such as moon, tree, brother, mother, do, be, new, long, that, me, too, mine are surviving until now and have come to us from the old English. The language has inherited vocabulary and grammatical structure throughout its history from different languages. According to Minkova and Stockwell (2001), eighty percent of the English vocabulary is borrowed from Celtic, Scandinavian, Latin, French, Spanish, Italian and other languages, in which Latin is a major donor to the English language.

D. The Importance of English

Behlol (2009) said that the Muslim community was hesitant to learn English when it was employed as a medium of instruction. They did not like to sacrifice their own culture and language for the sake of English. However, because of political supremacy, English became most popular language in the subcontinent. Now, it has become the common lingua franca of the world. This language has affected the culture and literature of the nations wherever the British set up their colonies.

The latest research work conducted in various universities of the world is in English language. Higher education is attained through the medium of English. The scientists and scholars can keep in touch with the modern knowledge in the field of Science and Technology with the help of English language. The industrialist can

use the best method of production and distribution; diplomats can make effective distribution in international conferences; and the defense forces can utilize the latest equipment for the defense of motherland and nation.

In spite of the great importance of English language, most of our students fail in this subject through some reasons. The most important one is incompetent teachers. They are ill-paid, ill-backed and ill-trained. They have neither command nor professional competency for teaching a second language (Behlol, 2009).

Moreover, aims are the signboard of every programme or activity. The whole process revolves around the achievement of aims (Minkova, 2001). They are further divided into goals and objectives. The aims are at national level; goals are at institution level; and the objectives are at subject, topic or lecture level. According to Behlol (2009), when a group of experienced teachers were asked to make a list of the aims of teaching English, which are considered by them very important, they agreed eventually to the list of the following aims:

i. The basic skills in talking, reading and writing should be developed so that the people may express and communicate in a variety of situations for a variety of purposes and a variety of audiences;
ii. To encourage reading as a pleasurable, rewarding and a useful activity;
iii. To develop the ability to read a wide range of text with understanding;
iv. To increase confidence in handling written language and to display the capacity to choose styles appropriate to the form, function and audience;
v. To provide a care for, and appreciation of precision for handling the written language;
vi. To introduce the sample of literature in such a way that the people desire to explore it further for themselves;
vii. To cultivate the power to imagine, to feel a way into experiences other than one's own, as well as to describe and evaluate one's own;

viii. To develop the capacity to sustain and communicate an abstract argument and illustrate it concretely in both writing and talking;

ix. To help the emergence of an individual capacity to form values, attitudes and meanings that help people to understand themselves and other better.

E. The Responsibilities of the Teachers

According to Behlol (2009), the teacher is responsible for:

i. Providing all possible range of situations for using all modes of language;
ii. Working onwards from pupils' language capacities and making use of their experiences, ideas, feelings and attitudes;
iii. Responding to pupil individual differences;
iv. Making language work as realistic as possible;
v. Creating an environment in which the people trust the teacher to respect their ideas, feelings and attitudes;
vi. Providing constant opportunities for pupils to talk and explore ideas;
vii. Activating the encouragement and support of pupils, looking more for things to reward than to penalize so that the least able have the chance of success;
viii. Use of stories, plays, poems on which pupil and teacher meet to explore their experiences;
ix. Acting as a simulator of ideas, provider of resources, guide to learning and promoter of active pupil participation;
x. Doing and showing how, rather than passive receiving and telling about;
xi. Establishing rapport with the students and delivering a lesson at appropriate pace of delivery;
xii. Showing commitment for the job.

F. Strategies of and Method of Teaching English

Following are the strategies and methods of teaching English:

1.1 Cooperative Learning

Cooperative learning consists of variety of concepts and

techniques for improving the importance of student-to-student interaction. According to Cohen (1994), it deals with the variable such as achievement, linking for school, inter-ethnic relation, thinking skill, self-esteem and enjoyment. The studies conducted on this topic has identified the advantages such as better achievement, linking of school to students desires, inter-ethnic relations, thinking skills, self-esteem, enjoyment, creative thinking, constructive disagreement for innovative ideas, copying of useful models of students, less anxiety producing environment, sparking of new ideas by the heterogeneous groups and strong knowledge base. Johonson. (2002). have identified the following key concepts of cooperative learning. They are as under:

1. Positive interdependence: The students realize and give value to the fact that their success is based on their collective performance and their mutual cooperation. They recognize the fact that they will "swim or sink together". The input that helps one person can help all and the thing that creates problem in learning for one-person can creates problem all.
2. Individual accountability: The students also realize the fact that they are responsible for their own learning and learning of the entire group.
3. Collaborative skills: The students are taught and trained about how they can cooperate and contribute in-group work. They know that praising and encouraging of the group members have positive effects and enhance learning.
4. Processing group interaction: The students recognize the fact how well they are benefited from the group activities and how well they can enhance them for future work.
5. Heterogeneous grouping: Students learn to work in mixed ability group. Their group members possess different characteristics as far as the level of their intelligence, which is social, emotional and psychological development, is concerned. They also learn to work with the students who are different on the variables such as sex, ethnicity and achievements.

1.2 Individualized Instruction

According to Herrera and Murry (2005), Individualized instruction is not a method but an environment in which the teacher focuses on the interests, needs, learning styles and other individual characteristics of students. It is an environment, which is totally responsive to the learner. The teacher views the student as an individual person who has different characteristics as compared to the other students sitting in the classroom.

In this respect, the goals of learning, methods of teaching and instructional pace vary from student to student. They do not view that teaching devices is everything in learning but the "individuality" of a student also play an important role. Herrera and Murry (2005) added that students usually spend 41.3% of his time in independent work, 19.7% of his time in learner-learner activities, 5.5% of his time with teacher, 10.5% of his time in small groups, 1.4% of his time in total class activity, 21.6% of his time in activities not part of the programme. The concept of individualised instruction is illustrated with the help of following points:

i. The classroom environment and seating plan is entirely different from the general seating plan as we see in schools. The classroom is divided into five areas such as speaking area, listening area, individual work area, reading area and test area.
ii. Learner generally at his own discretion uses these learning areas
iii. The teacher is not the focal point in the classroom but the individual learners.
iv. The role of the teacher is the manager of learning process as well as diagnostician, counsellor, consultant and scholar.
v. The learner plays the role of participant, leader, organizer, helper, motivator and manager of the learning process.
vi. The needs of the learners are fully materialized in the classroom.
vii. The role of the learner is not passive but an active agent of learning process, becoming a planner and director of his own learning process.

viii. The learner is not always at the disposal of the teacher but take a charge of his learning process for himself for effective learning.

ix. The learning material is developed in a way that it needs minimum guidance from the teacher, interacting with the learner and facilitates the learning process.

x. A variety of text is available to the learner and he/she selects from it that suits to his interests and abilities.

xi. The teacher records the daily profile of student's activities and guides him/her accordingly.

xii. Grade contract system is introduced for evaluating the performance of the students in the classroom. The teacher and the learner reach at an agreement that what should be accomplished in a certain period.

In summary, the goal of the individualized instruction is to provide the opportunity to the learner to learn in a way that is most suitable for him. For a teacher, it is required to be fully sensitive to the needs of the learner as well as having command on the variety of methods of teaching.

1.3 Role Play

According to Crookal and Oxford (1990), role-play is one of the important techniques of teaching second language. There are some words such as simulation, drama, role-play and game used in the same meanings but they have difference. Difference between simulation and role-play is in the authenticity and the nature of the roles taken by the students. Simulation means a situation in which the students play a natural role as performed by him in the real life. In role-play, the students play different parts such as prime minister, doctor, president, manager that they do not play in real life etc. The following stages proposed by Crookal & Oxford (1990), help the teacher to implement the Role Play technique successfully in the classroom:

Stage 1: A Situation for Role Play

The situations that are selected for the role-play should be according to the interests and needs of the students. Let the students be asked to suggest some situations for role-play or the teacher may give list of situations and let the students be asked to select among them for the role-play.

Stage 2: Role-Play Design

At this stage, it is considered how this situation can be developed. The student's linguistic competence must be at par with the situation, otherwise they will get tension and boredom from the activity.

Stage 3: Linguistic Preparation

At this stage, the students are prepared to have a command on language items to play the role. For example, when the students are going to play a role of shopkeeper and customer, let the students be prepared about the questions that are asked for buying a toy. The answers regarding the questions should also be discussed in the classroom. In this way, the students are prepared linguistically to prepare for the role.

Stage 4: Factual Preparing

This stage needs the provision of concrete knowledge/information and role description so that the students might be able to play the role with confidence. For example in a situation of college, the students should be provided relevant information about the timing of college, its historical background, departments, number of students, facilities, co-curricular activities etc.

Stage 5: Assigning the Role

It is better to plan earlier about what role goes to whom according to the interests of the students. Sometimes the teacher will give the role-play exercises as homework to students.

Stage 6: Follow up

Follow up does not mean to correct the mistakes of the students at the end of exercise. It will have some discouraging affects on the students. It is better that the mistakes should be noted by the teacher and corrected at any other time in indirect way. Follow up means the discussion in the classroom that what the students have learnt and how they have enjoyed the exercise.

G. English Second Language Learners

The experience of learning a new language can vary significantly from one individual to the next. According to Zehler (1994), ESL students come from diverse backgrounds, but they have several common needs. ESL students need to build their oral English skills, acquire reading and writing skills in English, and continue to learn in content areas such as mathematics, Teaching English, and social studies. Some ESL students have additional needs that will make the task of learning much more difficult. Some come from countries where schooling is very different. Some may have large gaps in their schooling while others may not have any formal schooling and may be lack important language literacy skills in their native language.

ESL students are also diverse in their economic backgrounds. Some may come from backgrounds where there are financial difficulties or health problems. These students often need support from health and social service agencies. Others may simply need understanding about some of the special circumstances they face. For example, both parents may work long hours and cannot help with homework, or they may be required to baby sit brothers and sisters until late eachevening, making it difficult to complete all of the assigned homework (Zehler, 1994).

Zehler (1994) added that in certain cultures a teachers' expectation may be opposite of the expectations in a U.S. classroom. For example, to show respect, a student may have been taught to not look directly at the teacher. For some cultural groups, praise to an individual student is not given publicly; instead, a quiet word of praise to the student is more appropriate. Teachers need to be sensitive to student reactions and try to respect these, while also helping students to understand the cultural differences in their new

environment.

H. Motivation in Learning English

Motivation was defined as the second language learners overall goal and orientation as the learner's persistence in striving to attain the goal, Gardner and Tremblay (2004). Also, motivation means the arousal of certain behaviors directed towards the accomplishment of certain tasks and persisting in exerting efforts that target task achievement (Huitt, 2001).

Some researchers explained that motivation differs from orientation because a learner might demonstrate a particular orientation, but not be highly motivated to achieve that goal (Gardner & Tremblay, 2004). Although researchers have used the same terminology (i.e., instrumental and integrative) for motivation as well as for orientation, motivation reflects the power to attain the goal reflected in the orientation. This power, Gardner suggested, stems from the desire to attain the goal, positive attitudes toward learning the language, and effortful behavior.

Moreover, Gardner (2000) identified two types of motivation - instrumental motivation, or 'a desire to gain social recognition or economic advantages through knowledge of a foreign language', and integrative motivation, or 'a desire to be a representative member of the other language community'. They found that learners with integrative motivation were more successful in learning a second/foreign language than those with instrumental motivation.

Pavlenko (2002) asserted that integrative motivation is a more powerful force than instrumental motivation because an absence of integrative motivation can outweigh instrumental motivation that does exist, halting or severely retarding language learning. This assumption explains very well what MacIntyre et al., (2002) referred to as the 'seemingly contradictory behavior' of people whose low level of effort does not match their professed instrumental motivation. It seems that even when learners know they need to- or should - learn a language (instrumental motivation), if they do not truly want to do so, because they have no respect for or appreciation of the target culture (lack of integrative motivation), they are likely to fail.

Gass and Selinker (2001) agreed that "it makes sense that individuals who are motivated will learn another language faster and to a great degree. Brown (2000) illustrated that both integrative and instrumental motivations are not necessarily mutually exclusive. Learners rarely select one form of motivation when learning a second/foreign language, but rather a combination of both orientations.

Furthermore, Masgoret and Gardner (2003) and Dornyei (2003) stated that motivation is the key factor that influences the rate and success of second/foreign language learning in the classroom. Anderson (2001) even argued that motivation shaped by this social context is the most important factors in determining the success of formal classroom language instruction.

Keller (2002) and McNamara (2000) suggested that increasing learners' participation is a good way to raise their interests in learning , which increases motivation. Learners who are able to set their own goals and evaluate their own progress were found to be more motivated. As the causal relationship between integrative motivation and classroom behaviors is unclear, encouraging positive classroom behaviors may be another option for teachers to enhance learners' motivation (Cook, 2002).

Oxford and Ehrman (1993) mentioned that teachers must do everything they can to heighten students' learning motivation by ensuring that the materials and the tasks are communicative, non-threatening, exciting, relevant, appropriately challenging, capable of stimulating successful performance, and presented according to learners' needs to help reverse any negative attitudes that might harm learners' motivations.

In the field of foreign learning, motivation represents learners' desire and exerted efforts to achieve an aspired level of proficiency in the target language (Gardner, 2001). The motivated language learner as defined by Gardner (2001) is a student who not only exerts the effort to learn the language, but also aspires to language learning and will enjoy it as well. Despite the controversy about the role that different constructs play in mastering a foreign language, motivation remains as one substantial aspect that influence the different stages of foreign language acquisition (Taha, 2007). The

role of motivation in foreign language learning has long been examined by educational researchers (Ryan & Deci, 2000).

Several theories and models shape the educational concept of foreign language motivation in particular. These theories include the theory of integrative motivation introduced during the social-psychological period by Gardner (2001), the Attribution theory and its implications for task persistence and goal attainment as developed by Weiner (2000) and the Self Determination Theory with its categories of intrinsic and extrinsic motivation developed during the cognitive-situated period especially the work of Ryan and Deci (2000).

i. Integrative vs. Instrumental

In their ext ensive research regarding the role of motivation and attitudes in L2 learning, Gardner (2001) established instrumental and integrative motivation as the two main modes of motivation constituting the foundations of several later research studies in the field. According to Gardner (2001), integrative motivation is mostly manifested when learners aspire to identify themselves with communities that use the target language as their main language of communication, in which learners want to utilize learning the foreign language to integrate themselves into a community of native speakers of the target language. Dornyei (2003) argued that integrative motivation does not only motivate the learner to learn the target language but also encourage the learner to willingly interact with the target language communities when available.

McIntyre (2002) found that integrative motivation always denoted positive attitudes to target language communities, cultures, and countries. Instrumental motivation is usually apparent when the learners study the language as a means for reaching a utilitarian goal like securing a job, travelling to a country where the language is spoken, or being able to pursue further studies conducted in the target language Gardner (2001).

ii. Attribution Theory

Originating in the work of McIntyre (2002), Attribution theory examines the various causal explanations for success and failure and

their influence on behavior. In education, Attribution Theory offers a specific and valuable model that endeavors to explain how learners' perceptions of the causes of success or failure may influence learners' expectations for success, self-efficacy beliefs, emotional reactions to educational task results, and achievement behaviors. Individuals' attributions may be internal stemming from the learner's abilities. They can also be external which are out of the learner's control (Ryan & Deci, 2000).

iii. Self- Determination Theory

Stemming from the field of psychology, Self Determination Theory (SDT) suggests that intrinsic motivation has three psychological needs: autonomy, competence, and relatedness where autonomy represents learner initiated actions, competence reflects students' mastery of target content, and relatedness shows the learner's need to be accepted and appreciated by others (Ryan et al. 2000).

Bernard (2010) asserted the assumption that learners will devote effort, time, and energy to educational activities that will fulfill the aforementioned psychological drives. In other words, learners will be willing to exert more effort when the educational activity enhances their sense of autonomy, seems suitable for the learners' abilities, and creates an acceptable and respectful self image as perceived by others including peers, family, and community members. Chirkov et al., (2005) argued that one of the major emphases of SDT is the central role of self-motivation and student autonomy as providing positive academic achievement and healthy student development across the globe.

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CHAPTER 2.
The Savior for Teachers and Students

A. Module and Educational Strategy

It is widely accepted that module has become a part of all level of teaching. Module itself might be defined as an educational strategy for arranging learning experiences in education and right now, it has been receiving much attention. By teaching students using a module, a teacher plays his role as a facilitator in using module rather than the traditional dispenser of knowledge. According to Daries (2000), module is a specific type of learning resource which might contains self-contained, self instructional packages, with learning paced by each student based on his/her individual needs and ability. A module has either a single element of subject matter content or a group of content element forming a discrete unit of subject matter or area of skill. Also, Farooq (1997) pointed out that there are some advantages of using module in teaching-learning program:

i. It is essentially self-contained and so all information necessary are available at the same time and place.
ii. Each student can precede at his/her own rate and is free to skip any portion of the packages as long as mastery can be demonstrated. Each student is also free to repeat any portion as often as necessary.
iii. Objectives are written down in clear and unambiguous terms.
iv. Packages are provided for a combination of learning experiences in an integrated sequence so that each learning activity can enhance and complement the others.
v. Different learning activities are used for objectives representing different kinds of learning. A variety of instructional activities is used to optimize learning on a given topic. Media is selected to complement the type of objective and type of learner and a large variety of media can be incorporated into each package. Packages are provided for active student participation, in which students learn by doing. Each actively involved in manipulating the instructional materials.

Biran (2000) pointed out that the package itself allows immediate reinforcement and correction at every step of learning. Most learning packages are entirely individualized but group experiences can be built in. The main point behind the introduction of modules in teaching learning indicates that they have roles that can help to solve key educational problems. This is largely since they satisfy the basic condition for promoting effective learning and are extremely flexible implementation. The use of the packages considered individual differences and allow students to work at their own pace.

As stated by Loughran and Amanda (2000), individuals learn more at their own pace, because telling is not teaching and listening is not learning, but it is a process of first absorbing and then expression of concepts, so it is best achieved by self-learning. In addition, Brown et al. (1999) indicated that module has the following advantages:

i. Users can study modules within their own environment. This means they can be used not only within teaching institutions but also on the job.
ii. Users can study modules with minimum disruption to their normal duties and responsibilities. While this applies to both students and teachers, it is particularly true for teachers who can use modules as resources for staff development.
iii. Modules may be administered to a single users, small groups or large groups according to need.
iv. Modules programmes can be easily revised and upgraded by replacing one module by another amending aspect of a single module.
v. Module programmes are flexible in the sense that they can be implemented through a variety of scheduling pattern.
vi. Modules are economical to use so they are cost effective.

Sampath et al. (2001) added that instructional modules are self-contained in the sense that the expected learning outcomes, the sequential learning activities and the evaluation devices are thoroughly planned for the unit instruction. Self-sufficiency is achieved by providing all the materials needed for learning the

package itself. If the unit instruction is larger, it can be split up into smaller units and complete package materials prepared for each small unit in the form of capsules. Each capsule must be linked together to constitute the main module. In addition to this, Doddeswell (2000) stated that modular teaching as beneficial teaching technique for different subjects at various level like elementary, secondary, higher and even in adult and continuing education including distance and non formal education.

Using module in teaching is an approach that might be considered as a modification of an improvement upon the famous concept of programmed instruction. This approach is based upon the well establish and universally recognized phenomenon of individual differences among the learners which necessitates the planning for the adoption of most appropriate techniques (Farooq, 2007). Taneja (2002) defined module as a unit of work in a course of instruction that is virtually self-contained and a method of teaching that is based on the concept of building up skills and knowledge in discrete unit.

Percival and Elington (2002) define module as an organized collection of learning experiences assembled in order to achieve a specified group of related objectives or a self-contained section of a course or programme of instruction. Module is an individualized self-instructional package, which helps the students to achieve a wide range of objectives at their own pace. It is more flexible approach that has been adopted in order to meet the specific requirement of students or to satisfy the special needs of particular students studying on their own pace at distance from the parent institution (Race, 1994).

A unit of time in the school day varies in length from 15-30 minutes usually; classes may meet for one or several modules in a flexible scheduling system of organization (Terry et al., 1999). Higgleton and Seaton (2001) in Chamber Essential Dictionary defined module as a separate unit that combine with others to form a larger unit, structure or system e.g. when different courses are divided into module and each module representing a term's work. Also, Balu (1997) stated that module is a set of learning opportunities organized around a well-define topic, which contains the following:

i. Elements of instruction

ii. Specific objectives
iii. Teaching/learning activities, and
iv. Evaluation

Pareek and Rao (2000) said that different levels and categories of learners need different syllabi, according to their needs. Nevertheless, some inputs may be common amongst some groups. It may be useful to develop self-contained units of curricula. These are called modules, and these are like mini curricula and are developed separately for each of the interrelated tasks or topics. A module is a set of learning opportunities organized around a well-defined topic which contains the elements of instruction, specific objectives, teaching learning activities, and evaluation using criterion-referenced measures (UNESCO, 2005).

A module should have detailed instructions, clearly specifying the instructional objectives of the unit, the list of learning activities to achieve these objectives and the evaluation techniques. The learning activities would normally be self-instructional; the organization of the activities should be clearly specified and always emphasize on the learners participating to the maximum and the teacher's interference to the minimum (Buch et al*.,* 2000). Manlove and David (1999) explained that modular approach considers each pupil as an individual with his own special aptitude and interest, goal of helping each student to think for himself and allowing the individuality to each learner. Also, the emphasis should be on the one-one students with unique abilities, aspiration and influencing experiences to provide quality education. When a teacher devotes to individual learning, he finds time for personal discussion with pupils and giving them individual help. The individual learning may help in developing many notable and self-reliant characters, and in much more modern ways pupils enjoy periods in which they pursue their interests and satisfy their curiosities.

1.1 Developing a Module

According to UNESCO (1988), there are 12 steps involved in developing a module :

i. Identify needs of target population (students and teachers) and listing of the topics of module.

ii. Collect the relevant information and material on the selected topics for the development of module.
iii. Verify the necessity and need for development of module.
iv. Plan for the development of module.
v. Write objectives of the module or units that should be based on the results of an assessment of needs.
vi. Select the learning experiences or learning activities, those are most appropriate for the achievement of the objectives.
vii. Arrange the learning activities or learning experiences in logical order in the sequential arrangements of the module.
viii. Organise the draft of the module.
ix. Review the draft of module and make the necessary amendments, which is appropriate for the learners.
x. Select three students from the target population, one each representing the fast, slow and average learner, and test the module on them. Revise the module according to the results obtained from the test.
xi. Plan and conduct further small-scale or large-scale pilot test or pilot study and make suitable revisions, if and when necessary.
xii. Print the manuscript of the module and make sure that it is free from errors and mistakes.

1.2 Instructions on How to Use the Module

The structure of the module is important to explain, especially if it has units. The procedure for working through the module needs to describe and any color-coding explained. Sometimes it is useful to have standard symbols to represent sections such as objectives; input; practice task; feedback and so on. If such symbols are used, they need to defined and explained and what the learner is expected to do during all phases of study should be emphasized.

1.3 Purpose and Aims

It means for whom the module is intended and where it fits into a programme and a course within a programme. It is useful to include a curriculum or syllabus grid, which precisely locates the module in the overall course. Aims are broad statement about the types of

anticipated learning outcomes such as to develop understanding or to enhance appreciation in some of knowledge or skill. These statements are important since they clarify for the users and the general areas covered by the module.

1.4 List of pre-requisite skills

If prior knowledge or skill is needed for achieving the objectives of a module, these need to be defined. For example, the module is about introductory mechanical drawing, and then it may be necessary for students to know something about basic geometry and have some skill in solving elementary geometrical problems. If so, these items should be listed to allow the advance preparation for the work of the module itself.

1.5 List of Instructional Objectives

This is one of the important parts of the module. Instructional objectives have to be expressed in behavioural term that is in terms of a performance which can be observed or measured. The objectives of the module as whole should be listed at the beginning and any units within the module should start with lists of their own specific objectives.

B. The Need of Module in Teaching-Learning Process

It is similar to all learning resources; modules must be designed to meet genuine needs. Teachers or trainers usually choose to develop modules for concepts and skills that seem to them relatively easy to modularize. This seems inappropriate; however, the misuse of valuable human resources helps to improve effectiveness in a critical course, solves the problem in management, or conquers a shortage of resources and so forth. According to Riasat (2005), there are three widely used ways to determine need in education and all are relevant to the design of the modules, which are shown as below:

1.1 Deficiency Model

It is defined as a gap between 'what is ' and 'what should be', or expressed in another way, as the gap between what is observed and what is desired (Lownmann,1999). As a simple example, teachers

note that students consistently have difficulty with a particular chapter of a book and decide that the need is for a more effective learning resource for that topic. An analysis of need using the deficiency model involves the following steps :

i. Identification and description of the optimal results, products or outputs expected or a particular situation, organization, institution or program.
ii. Investigation and description of the present outputs.
iii. Identification of the gaps between present and optimally desired outputs.
iv. Selection of the most critical gaps for closure.

1.2 Competency Model

Undertaking a job analysis is another approach to the determination of need. Job analysis covers a number of tasks that might be divided into a number of tasks elements. In job analysis, the tasks are referring to as competencies and it is clear that the determination of competencies is mandatory. Therefore, it is usually helpful to consider what students will be able to do when performing their tasks.

1.3 Conceptual Model

Standard textbooks tend to offer one chapter to each principle or to a group of related principles and frequency groups into parts corresponding to the major areas of the discipline. Farooq (1997) added that most modular programs consist of a single module dealing with one topic or a group or related topic and this is because the need is to reflect all the key ideas of a particular subject.Module designer needs to consider two things when designing a module. Firstly, modules generally combine both theoretical and practical aspects and therefore both job analysis (competencies) and subject analysis (topic) are important. Secondly, not all subject need to be full modularized and therefore it is especially important to apply the deficiency model to determine the need of particular course that would be best served by development of specific modules.

1.4 The Design of Module

The process of planning and conversion of a conventionally taught subject to a modular approach involves a total rethinking of the curriculum. It is important to review the purpose, aims, objective, contents, sequencing and methods. Therefore, the whole procedure of curriculum development needs to be rethought and reprocessed. The following steps are recommended:

1.4.1 Analyze Needs

The first step is determined which subject is to be modularized, and this usually requires an application of the deficiency model of needs analysis. One advantage of the modular approach is flexibility. The learner could be encouraged to work through this at his/her own pace using shorter or longer blocks of study time to suit personal styles of learning. Sampath et al. (2001) said that smaller unit alternatively might be more appropriate especially if each module can lead to accurate and clearly categorize outcome.

Module designers need to develop materials with the average student in mind, but should allow for fast and slow learners. Opportunities must be provided for slower students to catch up and for faster moving students to learn a little more. One device might have three days a week set aside for the module itself and two days for non-modular learning. This would give the necessary flexibility to cover for individual different in progress, while still moving the class together at the rate of a module per week. The time available to the student is important because it determines the amount of material, which can be included. Farooq (1997) pointed out that changing over to modular instruction does not provide an opportunity to load on an extra amount of material that a teacher believes would be nice for student to know

1.4.2 Selection and Sequence of the Modular Topics

The principle of structuring subject matter within a given module apply to the problems of dividing the content of a total course into a sequence of modules and so only a few specific points will be made at this stage. The decisions might be made about each of the issues in terms of the most effective pattern for the achievement

of the objectives of the subject or course as whole (Behlol 2009 & Farooq, 1997):

i. Can each module stand alone in a definite learning sequence to achieve cumulative outcomes?
ii. If there is cumulative gain what is the optional learning sequence for topics, skills, and values?
iii. Are all the content of the course needed to achieve its objective fit into the number of modules consistent with the allowed for the course as a whole. If not what are the alternatives?
iv. Where should the main points of consolidation occur and how frequently?

1.5 System Theory and Modules

The system approach to teaching can be frequently applied to conventional programmers; the degree of application varies according to the views of individual course designers. In the case of modular instruction, which is very systematic form of teaching and learning, the application is total. Modules are planned and designed with a system approach always in mind, in modular design each step of the systems must be followed as summarized below(Riasat, 2005):

i. Entry (starting) behaviour of learner analysed
ii. Objectives specifies
iii. Content selected and sequenced
iv. Learning activities designed
v. Continuous assessment built in and a mastery achievement test specified
vi. Effectiveness of the module evaluated

1.6 Other sources influences the Design of Modules

While modular design has been strongly influenced by systems theory, a number of other sources have also been very influential. These are being discussed in the following lines:

1.6.1 Learning theory

Eight key conditions for effective learning demand that:

i. Elements to be learned must be brought together
ii. Strict time limits should be avoided
iii. Objectives should be made clear
iv. Material should sequenced in logical steps
v. There should be a variety of methods and media
vi. Activities should be included throughout
vii. Feedback and reinforcement should be provided at each step
viii. Small group work should be included where possible

1.6.2 Programmed Learning

System and learning theory come together in programmed learning. Each programme is logically constructed system in its own right with objectives, activities and outcomes and at the same time, it has many of the characteristics needed for effective learning. In particular module, writer takes the following design elements from programmed learning.

i. Systematic structure
ii. Clear objectives
iii. Small steps
iv. Feedback
v. Reinforcement
vi. Mastery mode

1.6.3 Multi-media packages

In education, it is called 'media revolution' occurred in the 1950s and 1960 when it was realized that information could be packaged just as validity in the form of slides, tapes, moving pictures as in the form of printed books. Multimedia kits were developed for different areas of education, which have a strong influence on self-aced system and on modular design by emphasizing the following points:

i. Different types of information are more effectively conveyed by different media
ii. Objectives and media need to be closely matched
iii. Different students have different individual references for certain media
iv. A mix of media helps to consolidate and summate various aspect of information
v. Non-print materials are more effective than printed material for achieving certain types of objectives

1.6.4 Audio –tutorials

The audio-tutorials lead to a direct pathway from programmed learning to modules. They combine elements from programmed learning, workshops assignment sheets and multimedia packages. Audio tutorials of the 1960s led in the 1970s to the development of multimedia modules and they brought the following aspects to bear on modular design.

i. Multimedia approach
ii. Close integration of practical work and theory
iii. Strong association of ideas
iv. Logical structure
v. Reinforcement and feedback
vi. Student control over the size of learning steps
vii. Repetition
viii. Maximum contraction on material to be learned

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CHAPTER 3.
The Fundamental Design Characteristics of Module

Farooq (1997) has proposed that the modules assemble the crucial conditions for effective learning. This happen because module have certain fundamental design characteristics which have become known through application of ideas from the theory of learning. Precisely, these characteristics are as follows :

a. Essential self-contained
b. Self-instructional
c. Concern for individual differences
d. Statement of objectives
e. Optimal association, sequence and structure of knowledge
f. Utilization of a variety of media and methods
g. Information provided on progress (feedback)
h. Immediate reinforcement of responses
i. Active participation by the learners
j. Mastery evaluation strategy

A. Essentially Self-Contained

Most modules have all the material needed to achieve the objective of the module. Usually the term 'package' is used in connection with self instructional material such as modules and this reflects the idea of a closed self-contained unit, which also refers in a way to the format. Modules are usually reduced in a standardized series and can be transported and reproduced in a way that would be impossible in the conventional approach.

This is not simple, however, all modules should stand entirely alone. Toreston and Postlethwaite (1999) stated that some modules could be designed for use with a standard textbook or with a laboratory or workshop equipped with machinery. Instructions can be built into a module requiring students to undertake specified reading, complete certain practical task and so forth. Also a single module in a series can sometimes presume to study of previous modules or lead to a subsequent study of other modules. Therefore,

modules are essentially self-contained while they are not totally closed in on themselves. They also provide bridges to other forms of learning and to other modules.

B. Self-Instructional

Teaching students use modules by giving opportunity to conduct self-paced study build instant relay. Modular packages can be run in a variety of pattern to build unique courses of study with different interest and needs. According to Gagne and Brigg (1998), a basic assumption made in the development of any self-aced learning package is that learning is a process that must be carried out by the learner. Responsibility for learning changes from the teacher to the students because self-instructional systems such as modules are student centered.

This essential assumption has implication for the arrangement of subject matter, types of media used and allowances made for individual differences. Gagne and Briggs (1998) added that the assumption, in which students control their own learning, must be regarded as the basic rationale underlying any system of self-instruction, but it is crucial that the principles of learning in self-instructional are from the theories of learning which can be applied to a wide variety of learning situation. Students can transfer their skill to most other systems of teaching and learning of the 'learn to learn' through modular instruction.Thus, this is one of the most acceptable arguments for introducing students to modules.

C. Concern for Individual Differences

There are many differences between learners in a typical class. It is acceptable for a teacher to meet all the needs of each individual student at the same time. Thus, a student must follow a course, which will present the best option for the greatest number, as some differences have a marked pressure on rate of learning including differences in academic ability, background and in manner or style of learning. In that regard, the last point is becoming increasingly obvious to educators that people are really different in the way they think such as seeing as whole, while others would rather approach in an issue or area of knowledge more systematically. Another point is

that some students learn faster by audio methods in contrast to others who learn better by visual method.

Greene and Hicks (2002) indicated that self-instructional modules enable the rate of learning to be altered to suit the needs of each individual student. The slow learners are able to repeat any part of the package which seems difficult, whereas fast learners might move more quickly and demonstrate achievement which frees them from keeping to the average pace of a group.

D. Statement of Objectives

Students learn more proficiently when they have a clear direction about what they should learn some clearly stated objectives that have a key role for those who write the modules. Teachers know exactly what the learners are expected to achieve and can design all aspects of the module to meet each objective. The teachers get insight into the suitability of the module for their students and closely monitor the progress toward the achievement of the objectives. For students, the objectives are achieved by describing what are expected to be mastered. Therefore, modular packages take full advantage of a clear statement of objectives.

E. Favorable Association, sequence and structure of knowledge

The more elements associated directly in time and spare are learnt, the more effective the total learning will be. Modules not only cover elements such as practical experiences, theoretical material and information from different media but they also assure that subject matter is conveyed into close association with all relevant and related concepts.

In construction of a module, close attention is given to the most suitable sequencing of meaningful material. Basic ideas upon which subsequent information is dependent are presented first. This is line with the news by educators such as Gage and Berliner, (1998) who claimed that instruction was most efficient when information was sequenced as a hierarchy of ideas. In a module, each terminal objective requires its own hierarchy, thus teachers prefer to respond to individual differences by permitting each student to create his own learning sequence, relating what needs to be known to what is already known. If the sequence of learning event does not suit

students, then with correctly designed self-instruction, they free to alter the sequence to go with specific needs.

It is not difficult to see how modular instruction accommodates both Gagne and Mager's points of view. By evaluating of published objectives, students might choose only those learning sequencings within the modules that are appropriate to their needs and also select modules according to their individual requirements. Another noteworthy characteristic of module is the way the knowledge is prepared. In programmed instruction, the learning hierarchy is presented is a small step. Even, the formal size as they must be in the frames of a formal programme. By modules, students can determine the size of each learning step simply by adjusting the degree of interaction with the material by changing the degree of interaction with the material or by omitting familiar work while focusing on less familiar areas.

F. The Use of Variety of Media and Methods

It is believed that students differ in their responsiveness to different media of instruction. Some learn best through reading; others learn more from pictures and films; and still others must listen in order to learn; some students need to touch the objects to be studied; other students learn from one another and from dialogue with friends, colleagues and teachers. Ronald (1999) pointed out that students can study the material in a variety of ways and individuals can find learning sequences involving the media that work best for them. Students should proceed and interact with their teacher since the personal contact can clarify the subject matter; develop positive attitudes and value. They also answer questions raised by material in the module and enrich the students' interest. Mitschell (2001) indicated that modules have the further characteristic of giving opportunities for a wide variety of methods of instruction, from straight out reading, through problem solving and discussion sessions, to practical work and the exploration of media. In this way unlike formal programmed learning, they avoid monotony and maintain interest and motivation.

G. Information Provided on Progress

Modules present continuous feedback to students on their performance and especially on their progress toward achieving objectives. It can be applied by building in a frequent interval in text questions, checklists and quizzes and by immediately providing answer to these so that students can check up on their levels of knowledge, understanding and skill. Immediacy is important; a delay in providing feedback to student on his/her performance reduces the level of learning. Modules commonly need students to make regular written responses and the correct or model answer is provided on the next page. It is aimed for students who could not answer correctly in order to be able to see where they go wrong and return to suitable learning characteristics of modules and explain the superiority over conventional teaching.

H. Immediate Reinforcement of Responses

Reinforcement in this context is meant consolidation of learning through reward for success. Self-instructional modules use reinforcement of correct responses to shape behaviour, without using the standard sized small steps or frames of the traditional formal programme. Students can organize the size of each learning step because they might see immediately if they are right or wrong through the common modules as programmed learning. If students have been conscientious in studying the material, they are usually correct. Shipley et al. (2000) stated that the satisfaction is gained from success provide rewards, which are the basic of reinforcement. As in the case of feedback, reinforcement is the most effective if it is immediate and module provides this immediacy. Obviously, the type of reinforcement gained from modular instruction lacks the human kindness and empathy from the special recognition, which may be gained in the conventional classroom. However, students using modules are more usually and systematically rewarded than in a large class. Also, the teachers are free from being the main source of information to be a counsellor and learning guide. They can interact with students more frequently on a one to one basis. In this matter, modules permit more humanistic type of reinforcement to be greatly developed.

I. Active Participation by the Learner

Modules typically support students to actively participate in the lesson. Since students are generally in control of the lesson, they decide when to move ahead, when to study a particular sample, when to answer questions, to repeat a section, which has not been well (Farooq, 1997). Modules also promote maximum participation by their design. They continually pose questions; relate in activities and challenge learners to achieve specific objectives. Active participation is guaranteed. On the other hand, membership of a large conventional class cannot be the assurance participation. For example, lecturing may command the attention of only about ten percent of the audience. Students usually tune out when information is formally offered in talks and lectures (Behlol, 2009). Activity generated by modular instruction will not be working unless students can receive its messaage. They are in a state of readiness and learning is a possible result. Also, active participation offers opportunities for frequent feedback and reinforcement and these are the key situations for effective learning.

J. Mastery Evaluation Strategy

Bloom et al. (2003) figured out that the most effective modules use a system of student assessment which needs mastery of the objectives. Master is meant as achievement of a pre-set standard judged by a set criterion or level of performance. It is believed that students will master a module before proceeding to the next in a sequence, because this system reassures that students will succeed and it lessens failure. It helps to make sure that all the key material has been understood or that necessary skills have been achieved before students move on to new work.

Modules and unit within modules usually end with a carefully prepared mastery test with items corresponding one to one with the objectives. Farooq (1997) pointed that the importance is that students can check off which objectives have been reached and which have not been achieved. They can repeat their steps to bridge any obvious gaps in their preparation. In addition, Bloom et al. (2003) added that the concept of mastery learning has been developed in detail by the psychologist. He strongly argued that most students can master what we have to teach them and it is the task of the

instruction to find the mean that makes students able to master the particular subject.

However, teachers have been stipulated by the normal curve and to the 33 percent passing grade. This is known as a normative approach to assessment as it compares each student with each other, for instance, grades are assessed based on class norms. This method is selected to detect differences between students and failures, which simply defined by rank order rather than by failure to learn important ideas. This approach is suggested only if the best students have to be chosen for scholarship or for competitive places in other institutions.

The method is counterproductive to effective learning (Bloom et al., 2003). On the other hand, modules utilize a criterion-referenced approach to assessment and support each student to reach an agreed standard on a set of criteria. Farooq (1997) indicated that each student is tested to achieve in his or her right irrespective of what may or may not achieve.

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CHAPTER 4.
The Role of Modules in Education

According to Farooq et al. (1997) there are some potential roles of modules in Education:

A. Develop Learning Autonomy

The module supports autonomy in learning and the use of modules places the user in far greater control of his/her own learning. Romiszowski (1984) added that there is a major shift of focus from the teacher to the students. The climate becomes more learners centered. Therefore, this is a crucial step towards independence and prides the individual work of the student.

B. Ensure Satisfactory Minimum Standard

Modules can help system, preserve satisfactory minimum standard since they enclose materials in a standardized from that is the same for all. Since modules are largely self instructional, they can be allocated from a central point to all learners who immediately recognize the basic objectives to be achieved and work independently toward gaining these objectives.

C. Provide Remedial Units

Modules not only provide basic element of a programmed but also materials for enrichment or extra learning and unit for remedial training as explained by Demetriou and Kazi (2001). The letter role is especially crucial in cases where students may enter a course with uneven standard of preparation rather than delaying whole class for the sake of a few students, remedial modules can be used to permit the individual concerned to close gapes in basic knowledge on skills.

D. Improve Competencies of Teachers

According to Valletutti and Salpino (2003) modules have an important role in staff development at least in two respects. Firstly, they offer teachers the carefully structured lesson materials and serve as examples of effective instructional design. Secondly,

modules can be specifically written for the teachers. In response to that aspect, packaged can be created on such aspects as instructional planning, teaching-learning methods, student motivation and so forth. Those packages can be developed as part of staff development programme.

E. Integrate Theory and Practice

Since modules are largely self-instructional and the learner carries on in small steps, it is possible to proceed each step in practical work by the suitable theoretical explanations. Also, it is possible to combine theory and practice by relating each element to the other work believably and coherently than in conventional teaching.

F. Cater for Different Groups within the One Course

Different groups of students might involve different treatment in teaching-learning process. It is hard to cater for the needs of different sub groups in a conventional classroom, but modules can easily explain this matter by providing a mandatory core and a series of alternative strands within the same course. Since the modules are self-paced, they provide to an extent for individual differences in the learner abilities, interests, and degrees of application. A basic core of important modules can be offered to all optional extra enrichment unit can be available to keen students; those needing some important prior knowledge or skill can apply remedial modules and alternative units can be offered to students who face difficulty with the mainstream approach.

G. Combine Critical Points in Course

Most courses have topics or special importance on difficulty that need to be mastered for the understanding of the program thoroughly. It is difficult to fully modularize all parts of a particular course. Specific modules might be readily created for certain critical or traditionally difficult areas for assuring complete mastery of the topic. In this matter, failure or lower rates can be minimized and a firm basic for future learning convinced.

H. Provide Resources for Distance Education

Modules are appropriate to distance teaching because they are readily transportable. They can be modified to the requirement of a wide range of subject areas by building in films, tapes and other non-print media. Modules are useful not only for the distance education of trainees but also for staff development at a distance (Ghafoor et al.,1999). Set of modules can applied by teaching staff of widely separated institutions to assure achievement of necessary teaching competencies.

I. Encourage Mastery

Allen and Sickle (1999) illustrated that conventional courses are graded normatively such as comparing the work of each student with that of others. Sometimes students pass a course with grades as low's 50 percent implying that they have not understood at least 50 percent of the content. In contrast, modules have built in fail-safe mechanism that supports students to master the whole of the material. This might avoid the hit, miss approach of the conventional course, and assure that future work is based on understanding of all previous learning.

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CHAPTER 5.
Writing Objectives for a Module

A. General and Specific Objective for a Module

Distinction in the use of language when writing general and specific objectives is very essential. In phrasing specific objectives, verb must be used which give very detailed meaning. General objectives are advocated by the compromise system which would employ words such as know, understand, appreciate, recognize and so forth. Below are the guidelines for writing general and specific objectives for a module(Farooq, 1997& Behlol, 2009).

i. For writing a general objective, it begins the statement with a verb knows, understand, appreciate, recognize, etc.
ii. State each general objective in a term of student's performance but not observable behavioural performance at this stage. Do not write the statement from the point of view of the teacher, but from that of the learner.
iii. State each general objective in a way, which indicates an overall terminal-learning outcome of the student.
iv. Specify the general level of expected learning outcome in the general objective.
v. List all the specific behavioural outcomes to emerge from studying that particular section of the moduleunder each general objective. Remember that these will provide direct evidence that the general objectives which have been attained.
vi. In writing specific objectives like critical thinking or appreciation, they are difficult to specify in behavioural terms, but they must not be omitted just because of that.
vii. If necessary and appropriate specify the conditions in which the behaviour in to be observed and standards to be expected.
viii. Revise the list of general and specific objectives as needed to ensure that they cover the entire area of intended learning.
ix. Sequence the general objectives, and each set of specific objectives within them in such a way that the learning

outcomes of one becomes the prerequisite for achieving the learning outcome of the next.

B. Classifying Objectives-The Bloom Taxonomy

Farooq (1997) explained the importance of including all categories of achievements in writing module. A constructive planning device to ensure adequate coverage is to apply the developed classification system is to apply the classification system developed by Bloom and his colleagues. Three domains of Bloom's taxonomy are:

a. The cognitive domain, objectives related to knowledge
b. The affective domain, objectives concerned with interest, attitudes and values
c. The psychomotor domain, objectives related to practical skills.

a. Cognitive Domain

This domain related to objectives concerned with knowledge and intellectual skills. Riasat (2005) stated that the levels are from the simplest to most complex are as shown below:

i. Knowledge: Recalling specific and general items of information and also information about methods, processes and pattern
ii. Comprehension: recognizing items of information in setting to but different from those in which they are first encountered
iii. Application: explaining previously unseen date or evens by applying knowledge from other situations
iv. Analysis: breaking down blocks of information into elements for the purpose of clarification
v. Synthesis: building information from previously separate units of knowledge
vi. Evaluation: making judgments about the value of information, materials or methods for given purposes

b. Affective Domain

The domain is related to objectives concerned with interest, attitudes, and values. The five levels of the affective domain from the simplest to the most complex are as follows (Behlol, 2009):

i. Receiving: sensitivity to certain stimuli and willingness to receive or attend to them
ii. Responding: involvement in a subject or actively or even to the extent of seeking it out, working with it or engaging in it
iii. Valuing: commitment to a conviction in certain goals, ideas or beliefs
iv. Organization: organization of value into a system, awareness or relevance of relation, organization between appropriate values and the establishment of dominant personal values
v. Characterization by a value complex: integration of belief, ideas and attitudes into a total philosophy or worldview

c. Psychomotor Domain

This domain is concerned with manipulative skills involving muscular or motor responses requiring neuromuscular coordination. According to Riasat (2005), the five levels of the psychomotor domain from the simplest to most complex are as follows:

i. Imitation: copy of an observed act but lacking neuromuscular coordination
ii. Manipulation: copy of an observed act usually following instruction, displaying some neuromuscular coordination
iii. Precision: performance of a physical act with accuracy, proportion and exactness
iv. Articulation: competent performance of a physical act involving coordination of a series of other acts
v. Naturalization: routine of a physical act to the extent that becomes an automatic spontaneous and ultimately subconscious responses

C. Writing Statements of General Objectives

The following list presents practical clues on writing statements of general objectives (Behlol, 2009):

i. Carefully evaluate the objectives the course in general and of this module in particular. Pay particular attention to the likely entry behaviour of the students concerned.

ii. Objectives must be not pointed out in term of a teacher performance.

iii. Statements of contents are not objectives. What should be underlined in what the learners have to do?

iv. Objectives should not pointed out in term of learning process, and the product of learning outcome should be emphasized.

v. Avoid more than one type of learning output in each general objective

vi. Although general objectives are concerned with learning outcomes, they are the outcomes that cannot be discussed directly. Thus, in writing general objectives, it is important to use the words like understand, know, appreciate, recognize, show, concern for, evaluate, demonstrate and so forth.

vii. Once the list of general objectives has been accomplished, check that it is completed. Make sure all related domains and levels of the Bloom taxonomy are represented.

viii. Set the general objectives on a logical teaching sequence.

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CHAPTER 6.
The Composition of a Module

It is important to view the module as a whole before beginning the design of the substantive learning sequence within the main body of the text (Behlol, 2009).

A. The Nature and Significance of Learner Participation

In conventional teaching, participatory learning can be arranged by appropriate interaction between teacher and learner. Most teachers arrange lessons as input-process and output process (Pareek & Rao, 2000). They usually give an input, encourage question and discussion and involve some tasks to be performance such as making something, solving problems, etc. Module being self-instructional resources might recompense for the possible absence of the teacher by building in plenty of self-directed processes and outcomes, but the learner can be kept active the whole time. In addition, participation is important in which the learners rearrange and strengthen new ideas and all skills in the light of previous experience, and this enables the growth of intellectual, affective, and psychomotor attributes.

B. Choosing and Sequencing Subject Matter

Each set of specific object is a major step towards deciding the content. On the other hand, each general objective will be a heading for a major section and its specific qualifying objectives become explanation for the content of that unit. Below are the following systematic ways to sequence contents (Behlol, 2009):

1.1 Time Sequencing

This is the simple approach and is suitable to cases in which there is underlying time sequence such as in a systematic process, a series of historical events, a process stated in a given order and so forth.

1.2. Hierarchical Sequencing

This includes organizing and sequencing subject matter into heading with subheading based on a logical classification scheme. This type of sequencing needs more careful planning than simple sequencing because provision needs to be made for consolidation and comparison (Pareek & Rao, 2000).

1.3 Problem analysis sequencing

This is the most complex part of sequencing. The presentation starts with posing a problem and is followed by a series of alternative hypothesis achieving a conclusion.

It is possible to combine time, hierarchical and problem analysis types of sequencing based on the type of subject matter needed for the achievement of the objectives. However, any learning sequencing must have a clear introduction, rational development, consolidation, recapitulation and an important conclusion.

C. Arranging of a Single Unit of a Module

Farooq (1997) indicated that the module is made up of a series of units of infra structural material. Each unit might be built on the input process - output model, or if processing and produc ing are considered less relevant on an input-practice task-feedback principle. Figure below explains how the element within a single unit can be sequenced.

Table 2: The Input-Process-Output Model

Elemen bt No	Element
1	Instruction and bridge from the previous unit
2	General objectives
3	Specific objectives
4	Input information
5	Instruction for processing, Response spaces for the results of processing
6	Reinforcement at process step
7	Instruction for output phase. Spaces/opportunities for recording or responding on products of the output phase
8	Feedback on output
9	Reinforcement at output phase
10	Feedback at output phase
11	Interpretation and further reinforcement of feedback data
12	Consolidation

Source: Farooq (1997)

Note: If the input-practice task-feedback type sequence is adopted, the figures can be interpreted as follows:

Elements:
1-4 As above
5-9 Omitted
10 Equivalent to practice task
11 Equivalent to feedback on practice task
12 As above

Farooq (1997) added that the following aspects should be taken into account when developing the above elements:

i. Introduction and bridge: How much repetition is necessary / how can the scope of the unit be best highlighted so as to relate it to the purpose. Aims and general objectives of the module as a whole
ii. General objectives: How can this be made to stand out as the main focus of the unit?

iii. Specific objectives: Are the earlier draft adequate in terms of number, specificity and wording? Do the objectives need to be qualified by specifying standard and conditions? Will they need to be further explained by more precise statements, by means of a blue print and so forth?

iv. Input information: Will the input be provided in the text, be generated by the learner, or be obtained from some other source such as a textbook of audio-visual resources.

v. Processing: What forms, for example a paragraph of instruction, a list of prescribed steps or a blueprint, will the instruction take? How can you be sure that learners will be able to undertake the set task given the input provided? How much assistance should be given to help the learner toward the correct response?

vi. Reinforcement at a process step: What terms can be used to give satisfaction and encouragement without appearing patronizing?

vii. Output: How can the learner demonstrate in writing or substance that the assigned task has been performed?

viii. Feedback on Output: What method can be used to allow learner to check on the quality of the output, asset standard, a checklist, a model answer or blueprints?

ix. Reinforcement at output step: What devices can be used to give the learner a sense of satisfaction that the task has been performed satisfactorily?

x. Feedback Quiz: What item forms will be used? How will these be organized to stress achievement of the objectives at the required level of performance?

xi. Interpretation of Quiz result: What advice will you give if a comparison between actual and intended outcomes does not meet the required standards?

xii. Consolidation: How can you summarize the significance and place of the unit or section in the total module?

Furthermore, participatory learning can be arranged by suitable interaction between teacher and learner in conventional teaching. Many teachers arrange lesson as input process-output cycles. They usually give an input to encourage questions from the students and require some tasks to be performed such as solving problem, making something, etc. Module should compensate the possible absence of the teacher by building a number of self-directed processes and output because the students must be kept active all the time.

Kubiszyn and Borich (1996) expressed that participation is important if the students are to learn. It leads the learners to rearrange and consolidate new ideas and all skills in the light of previous experience and this assures growth of academic, affective and psychomotor attributes. Therefore, the implication for the module designer is to arrange all aspects of the modules to create as expectation that the learner will be involved at all times. Objectives should be clear and instructions explicit; inputs kept short and interesting chances are provided for rearranging or practicing inputs; occasion is made for producing evidence of performance by carrying out a specific task and provision is made throughout for self assessment of achievement.

D. Study Time as a Factor in Design

In arranging the unit of a module, the time is needed to study the material by the students and must be taken into careful consideration. There is a great effort to excess the content and to require too much for students to complete in the time available. In this matter, the curriculum grid will be an important guide. The number of modules verified by the need analysis must be equal in scope and level to the conventional course, which they replace. Therefore, each module should be similar to study time to a standard number of hours of study, say to amount of work time required during one week of a conventional course. Each unit within a module should be similar to study time to time spent on the work of, say one or two conventional lessons which cover theory, practical work or a combination of both. Therefore, the module should contain only the material involved during contact hours of a conventional course, because students of a conventional course are encouraged to study

outside contact hours, and a proportion of the extra study time can be loaded into a module.

Despite the fact that modules are self-pace and self instructional, they need to be written in such a way that can understand them in a rational time. Some students learn more quickly and other takes a longer time in conventional course. Therefore, it is important to allocate a time for each learning step in the plan (Farooq, 1997 & Behlol,2009). When the time line is allocated to steps of the learning sequence, it will be an important guide for writing the unit. It must be referred to at every stage of the writing in order to keep the amount of the content at the correct level.

E. Building in Variety

Shipley (2000) explained that the input process and output sequence offer an ideal framework for building in variety of learning experiences. Processing procedure could vary and involve the learner in reflection, analysis, drawing, role-play discussion, writing, rating, voting, undertaking practical task, simulation, practice of skill, etc. The tasks involved in the output will be equally varied, determined to a large extent by nature of the input and processing phases of any given sequence. However, active involvement could be built into the module by suitable choice of activities, which is followed by an active response, such as the learners should take an active role. This phase turns lead to the development of some definite product, something that is put together by the learner, and it may be an idea or a material object, but whatever its form, it represents a creative effort on the part of the learner.

F. Integration of Theory and Practical Work

Green and Hick (2002) stated that one of the advantages of modular instruction is the opportunity to present for a close integration of theory and practical work. Also, elements to be studied could be brought together in time and space, so that the learning will be more effective. Usually, conventional courses are timetabled as separate theory classes and laboratory session and occasionally these get out of phase. Green and Hick (2002) also added that with a modular approach several alternative approaches are possible:

The first is to integrate theory and practice either in the conventional timetable or by allowing open access to laboratory and classroom that become study or learning center, meeting the self-paced study needs of individual students. All modules have theory and practical work. The second approach is to partially integrate theory and practical work having some modules dealing mainly with theory, some mainly with practical and some with blend of both. The third approach is the least effective and separate modules for theory and practical work but to sequence them in such a way that each block of theory relates to an immediately succeeding practical session. This latter approach could be crucial where modules are being introduced within an otherwise conventional teaching structure. The ideal approach is to blend theory and practical steps within any one-precedent chain.

G. Building in Discussion

Since modules are self-paced, self-instructional does not exclude the possibility of opportunities of group discussion. Possible individuals should use group discussion because active involvement in small learning group enhances learning. Block (1998) pointed out that opportunity for small group discussion could be achieved in the following ways:

i. One technique is to timetable small group work in several days ahead of scheduled use of a particular module and to use it for consolidation and review of the material covered by that particular module.

ii. A second method is to integrate small group work into specific points of topic precedent chain within a unit. This is more difficult to achieve in fully self-paces situation since different students will reach that point in the sequence at different times. However, large classes and sequence especially in situation where modules are used in conventional lock step timetabled program. Usually a sufficient number of students arrive at approximately the same point in the sequence at much the same time as form variable discussion group.

iii. A third possibility is to encourage students to form their own discussion groups by arranging meetings with other students who are not involved in the module program. Discussion can also be encouraged between students and teacher or students and other selected members of the faculty or the community.

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CHAPTER 7.
The Nature and Role of Feedback

It is a term used in communication, computer work and system theory. In general, the term is also implied on teaching and learning, as it is important in the design of the module. In the system sense, feedback can be used as the process in which a system or procedure is checked intermittently to see if progressing smoothly towards some prearranged goal. As stated by Mager and Rojas (2001), in an instructional program, it is involved the collection of information on rate and direction of progress toward an agreed objective and assesses the status, say learner in relation to the behaviour specified by the objective.

Moreover, students are encouraged to receive adequate feedback to guide them toward objectives considering valuable time. However, it must be remembered that individuals have different need which might appear to be a problem in modular design, but the difficulty is solved by the nature of the modular approach. Since modules are designed to provide many structured activities, students have relatively large amount of knowledge and experience, so feedback can be provided to the learners, and individual differences become less of problem.

A. The Characteristics of Effective Feedback

The purpose of feedback is to provide the learner with information on progress made towards achieving the specified learning outcomes during as well as after learning (Riasat, 2005). The former helps in the acquisition and retention of what is learned as well as in checking the extent to which specified objectives have been achieved as well as for providing guidance to made up differences. They should be straight forward, repeating, reviewing concepts or skills treating the immediately preceding section of the module. If the leaner has consistently worked through the relevant activities, he/she should have no trouble in undertaking the tasks, answering the questions or providing the date required.

i. Feedback devices should be short, take up as little of the learner's time as possible, and have clear unambiguous instructions.
ii. The devices should relate directly either to the elements of or more immediately relevant specific objectives of the preceding unit/or to the general objective of the module as a whole.
iii. Enough evidence should be provided by each set to give the learner confidence to proceed with the next phase of module.
iv. Some device such as rating scale with verbal equivalents or a scale of marks explained in words should be provided to help the learner interpret the data collected or answer given.
v. At no time should these sections of the module appear either threatening or conversely to be merely routine questions at the end of each section. They should be designed in such a way that they function as positive aids to learning and should be perceived as such.
vi. All feedback should have a strong reinforcement role and hence any interpretative comments should be positive.

B. Types of Feedback Systems in Modular Design

Torralba (1999) figured out that at least four types of feedback systems can be built into a module. These are as under:

i. In text question without answer: Such questions should be direct and immediately answerable from the content of the module. Feedback has the role of breaking up the input into smaller steps and fact constitutes a process step in the design. They give students chances to reflect on previous work and consolidate learning. An instructional should be added such as check your answer to these questions by reading section or page so and so.
ii. In text question with answer: If the same input has been unusually complicated or difficult, it is usually necessary not only to break it into small steps by the insertion of questions, but also to provide immediate answer to the questions.
iii. Self assessment question: these have a very important role in the module because they provide consolidated feedback at the

end of each unit and SAQs are organized in the form of a quiz or set of questions, with at least and sometimes two or three questions on each of the specific objectives of the unit. The purpose of the quiz is not to grade the students but to consolidate learning and to provide feedback on progress. They are learning devices and must be provided with answer and if necessary interpreted. Students who fail to answer any questions should be advised to gain work through the relevant section of the module.

C. Feedback Questions and Objectives

The different levels of feedback provide the learner with information about progress towards achievement of the objectives. This indicates that the module designer should organize ITQs and SAQs in carefully arranged learning sequence with each level contributing to cumulative understanding at the text. The learner should be able to see from his/her answer that steady progress is being made. Also, the learner should detect and know where in the module information can be achieved to deal with the learning deficiency. These questions cover all the key ideas or skills of that unit, at a level of achievement set by the specific objectives.

D. Feedback Questions and Reinforcement

Wittich and Schuller (1998) pointed out that the provision of positive feedback enhances the motivation and provides reinforcement in the form of feelings of satisfaction that progress in being made. ITQs should be designed to be failing safe. If the students work through the module carefully, they should find it easy to answer the ITQs and in this way, reinforcement is assured. The SAQs are crucial in providing reinforcement because they indicate to the learner satisfactory achievement of a whole unit of work and significant progress toward mastery of the objectives of the module as a whole. Answer to self-assessment quizzes should be immediate, comprehensive and through because student should be referred to section of the unit to close any gap in learning. Also, it is necessary to avoid giving negative reinforcement by asking questions at as inappropriate level of difficulty or not relevant to the objectives.

E. The Characteristics of Self Assessment Quizzes

John and Perillo (2002) said that self-Assessment quiz or practice task for each unit should have the following characteristics:

i. Each specific objective should be tested by at least one and perhaps two or three questions.

ii. The quiz has both formative and summative elements formative in that it checks on an attainment of objectives of a single unit, which in turn contributes, to mastery of the overall objectives of the module as a whole, to be finally assessed by the post-test. It is a check on progress or formative development of learning. At the same time, there are summative aspects since the quiz brings together and assesses the learning outcomes for a single unit of the module. Therefore, the learning outcomes for the unit are checked by the quiz and it has an important consolidating function.

iii. The form and type of each question, matching, true false, multiple choice should be chosen carefully to fit in assessing the type of objective. If the objective involves listening topics, then the question should involve listening and so a matching format or a short answer format would be appropriate. If the objective involves evaluation of alternatives then a multiple choice item would be suitable.

iv. Because a self-assessment quiz has both formative and summative element, it should aim to test mastery of the content of that particular unit and progress towards mastery of the objectives of the module as a whole. Therefore, the question should not be designed to grade students or to compare students one with others. The items are not normative but criterion referenced, which means that achievement is measured against a standard or criterion. In this regard, the standard is whether or not each objective has been achieved.

v. The assessment quiz is referenced that there is not much point in adding up marks. The questions form a type of checklist to detect if the learner has achieved all the specific objectives of the unit.

vi. Since the main purpose of unit test or a self-assessment quiz or practice task is to provide feedback to the learner on progress towards achieving the objective of the module, it is important to interpret answer by discussing the reasons for possible errors and to build confidence by showing how the error can be corrected.

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CHAPTER 8.
Validation of Module and Test Construction

A. How to Validate a Module

According to Rumpus (2003), modules are effective for improving the quality of instruction if they have been developed in consistent way, and if all components of the module match with one another. It can be validated in following ways.

1.1 It must start with the aims of module

This describes what the module wants to achieve, the broad content addressed by it, and any motivation or aspirations that it will provide for the learners. For this purpose, Rumpus (2003) has identified following questions that should be considered:

i. Do the aims of the module match with the outcomes of the course?
ii. Do the aims of the module match with the objectives of the subject area?
iii. Do they match with the QAA subject benchmark?
iv. Do they match with the employability criteria?

1.2 Learning Outcomes

According to Rumpus (2003), learning outcomes are the statements that describe what you expect the students, who pass, to have achieved by the end of the module. They should be five or six statements that are prefaced by the phrase, "by the end of module students are expected:" For this purpose following statements should be considered:

i. Are they aimed at what the learner will achieve?
ii. Do the learning outcomes are aimed at the average learner who will pass the module?
iii. Are the statements simple, using strong words, assessable, achievable within the given time frame?
iv. Are the outcomes appropriate for the learner at the certain

level?

v. Are the learning outcomes properly describe the level of the work at which the student is operating? Levels should fit in the way in which the student is expected to show progress in the area of intellectual development as he moves through the module.

vi. Are the learning outcomes aimed at showing progress from any prerequisite module at a lower level?

vii. Are the learning outcomes aimed at the inclusion of any subject-related or transferable skills that the student will be acquiring?

viii. Are the modules contributed to the development and promotion of career management skills?

1.3 Assessment Criteria

According to Rumpus (2003), assessment criteria consists of the statements that convey to the learners and other members of the teaching team the basis or parameters on which the work will be assessed. The generic statements of the assessment criteria are developed for the module. It can be expressed in variety of ways; and the main approaches are as under:

1.4 Threshold Criteria

Threshold criteria are more elaborated statements that expand on the learning outcomes to show what the students need to perform or do the activities to pass the module. For example, there might be six learning outcomes that are elaborated into twelve assessment criteria statements. They (threshold criteria) should match with the learning outcomes and the content of the module.

1.5 General Criteria

According to Rumpus (2003), general criteria consists on general statements of what one is looking for in the work of the learner such as, “Demonstrate interest and involvement in the literature”, “Presents sequenced and logical arguments”, “Present evidence of original idea”. They should not relate to individual module but can be very useful for a course in identifying what is

generally expected from the student. It does not help students to determine what will be the benchmark of success or failure in any particular module.

1.6 Grading Criteria

According to Rumpus (2003), the gradind criterion classifies the performance of the students in certain mathematical numbers such as 70+, 60+, 50+, 40+, and 30+. Fail. These criteria can be designed for specific areas of work, or for categories, e.g. essay work, presentation, and practical reports. They are valuable at either the entire course level or at the level of individual piece of work. Grading criteria are very difficult to write for a module as an entity, and hence, it is more appropriate that it should not be attempted for the module description. Such graded criteria should also be taken into consideration for certain levels.

1.7 Assessment strategy of the Module

According to Rumpus (2003), there are different assessment methods that can be used for module. There are some traditional and time-tested methods used in different subjects and there are some modern methods practiced by the educationists. The method contains the following important chararactristics:

i. Are the learning outcomes measured by the application of assessment methods?
ii. Does it measure skills as well as knowledge?
iii. Does the method help the students to learn in reflective and active manner?
iv. Will the students be motivated to learn by the application of assessment method?
v. Can you use any alternative methods that are more effective in use of staff time?
vi. Are you certain that your method is not overburdening the students?
vii. What formative components/parts are included?
viii. Have you decided about the adequacy of an average pass mark of your over all assessment, or whether you want to have the

performance for each individual element is on the basis of threshold level?

When the module is put into practice, a "brief" for the work might be provided to students about the allocation of marks in relation to each part of the work.

1.8 Content of Module

According to Rumpus (2003), content is main area of the subject, which should be delivered through the module and should cover knowledge, understanding and skills. It should focus on the following questions:

i. Does the subject matter/content of the module match with the outcomes?
ii. Does the content given in the module need any pre-requisite knowledge or skills? Should you need to set any pre-requisites or co-requisites?
iii. Does the content of the module need any professional body/subject benchmark requirements?
iv. Have you incorporated any necessary skills?
v. Is the amount of content match with the number of credits available?

1.9 Teaching and learning strategy

According to Rumpus (2003), teaching learning strategy has been decided on the basis of mode of presentation of module. The modules can be represented face to face, on line or a mixture of both. The mode of delivery and selection of teaching strategy focus on the following questions:

i. Does the presentation pattern or mode enable the student to obtain the learning outcomes?
ii. Does it encourage and promote student centered learning in the student?
iii. Does it encourage and promote reflective learning in the student?

iv. Does it ensure the development and identification of transferable skills?

v. Are there any other methods that would be more efficient for learning of the students?

vi. Is your delivery mode match with the given resources and time schedule?

1.10 References

List of references should be developed for the module. They should match with in some way to the level of the module. It should progress to more special form of texts and sources in modules of a higher level. There is a need of inclusion of some useful Internet sites. It is important to categories the references into compulsory reading and further reading. The compulsory reading must be done by all of the students whereas further reading is for wider understanding of the topic under study for those students who like to get in-depth understanding of the topic (Rumpus, 2003)

1.11 Module Schedule

According to Rumpus (2003), when the modules have been validated, the module developer will need to write a module schedule. This will provide the detail about the elements of the module that are delivered in each session throughout the semester or academic year. It also includes the date for informing students of any course work assessment and the deadline for handing over of the assignments or the projects. For this purpose, following questions should be considered:

i. Are the learning outcomes for each session fit within the learning outcomes of the module?

ii. How does each session have been linked to those earlier and later?

iii. Do the students are able to acquire knowledge and skills in most appropriate and reasonable order?

iv. Are the students are well equipped to undertake the submission of assessment assignments at its due time?

1.12 Information for Students

According to Rumpus (2003), the "Module information" should be prepared and given to students at the start of the modular programme. It should be ensured that all of the students might be clear about what is needed from them.

i. Have the module developer given the students the learning outcomes for the module?
ii. Have the module developer given them the teaching schedule for the module?
iii. Is the timeframe for the assessment of the different parts of the module clear to the students?
iv. Have the detailed assessment is provided to the students?
v. Do the students aware and understand the assessment procedure?

1.13 Factors Influencing Module Design

According to Rumpus (2003), there are number of issues that influence the modular design, about which the module developer and implementer must be aware. The following list of factors might be considered in the design of a module:

i. The basics or the nature of the discipline
ii. The ethics of the school/department or course, and any local conventions on issues of delivery and assessment.
iii. Any professional body requirements.
iv. Any feedback that might have been obtained from a previous QAA review.
v. Any external examiners' criticism or comments on the prior operation of the module.
vi. Any students' comments through the questionnaire or course committee or any other way.
vii. Availability of the resources and the pressure over them.
viii. The expertise of the staff available to deliver the module.
ix. The cost of any type of material required for delivering the module.

x. The grouping of the students that might relate to:
   a. Number of students b. Level of students
   c. Prior knowledge of students
   d. Diversity of students
   e. Attendance pattern.

   (Source: Rumpus, 2003)

B. Construction and Use of Pre-Test and Post-Test

Pretest and posttest are very important components of modular instruction. Pretest is administered at the start of teaching programme and the posttest at the end of it. They are the tools to check the validation and effectiveness of modular teaching and to find out the prerequisite skills needed to implement the modular instruction. They also identify the level of readiness of the students. According to Corey, *et al.* (1970), Pre-test provides the base line data to decide that what type of module should be assigned to which student. It also tells us that to what extent the objectives of the instruction have been achieved and what are the existing weaknesses lies in the instructional strategies and how they can be modified. The functions of both the tests enlisted by Corey, *et al.* (1970) are as under:

i. Pre-test posttest checks the effectiveness of modular instruction.
ii. Pre-test determines the readiness of the students for the instructional programme.
iii. It evaluates the pre-requisite skills needed for the instructional package.
iv. The tests also determine whether the desired changes have occurred in the behavior of the students.
v. Modular designers get feedback for the further improvement of the module through posttest and pretest.

C. Posttest as a Check on Mastery Learning

According to (Gronlund and Lin (1985), there are two types of tests: Criterion Referenced and Norm-Referenced test. Mastery test is the specialized form of the Criterion Reference Test It is most

suitable for modular instruction. A mastery test involves two levels for reaching criterion or not reaching to it. An extension of this concept, which applies to modules, means that once the students understand all the important concepts, mastery has been achieved, and then the student is able to move on

the further stage. This implies that each objective has been achieved only if the test carries one question on each of the specific objective of the module. If mastery has not been attained, certain implication exists for remediation or review.

Another important feature of mastery test relates to time factor. The task required to attain mastery remain constant whereas the time allowed for achieving these tasks may vary according to the needs of individual. Since the modules are self-paced, mastery tests are especially suitable in modular instruction. Individual may pace their own learning with some take more time than others. They try again by using the remedial work and achieve all the objectives of modular instruction.

Gronlund and Linn (1985) enlisted the following features of mastery test:

i. They fall in the category of criterion-referenced test.
ii. They include the recording a specific performance level.
iii. Each item in the test checks the achievement of one specific objective.
iv. They are appropriate where content and skills are in hierarchical structure. v. They can be given after variable time of instruction.
v. Students may undertake remedial work in areas not mastered and try parallel forms of relevant questions as frequently as necessary to attain the mastery.

D. Characteristics of Pre-test Posttest

The basic characteristics of all the tests are validity, reliability and usability. According to Gronlund and Linn (1985), validity refers to the appropriateness of the interpretations educed from test scores, and other evaluation results are to be used.

In other words the test should measure what it supposed to measure. If the results are used to measure the reading comprehension of the pupils, we should base our interpretation on evidence so that the scores actually reflect reading comprehension. It is a matter of degree and does not exist on an "all or none" basis. It is specific to some particular use of interpretation; and no test is valid for all purposes. For example, the result of an arithmetic test may have a high degree of validity for indicating computational skill, a low degree of validity for indicating arithmetical reasoning a moderate validity for predicting success in future.

Secondly, reliability is one of the important requisite or need for validity, but it must be remembered a test may be reliable but not valid. It means that the results might be consistent but not measuring what they are supposed to measure. Validity is a matter of degree: a test might have high degree of validity for reading comprehension, low degree of validity for grammatical competence, moderate degree of validity for semantic competence (Gronlund and Linn, 1985). There are some approaches to measure validity such as content validity, face validity, criterion validity and construct validity.

According to Gronlund and Linn (1985), content related evidence is most important when we want to describe how an individual performs on a domain of a task that the test is supposed to represent. In other words the test should be the true sample of the content. Its results can be generalized to the entire domain that is going to be covered. In this respect the pre-test, post-test of the modules must have the content validity.

Face validity is different from content validity. It refers to the appearance of the test. For example, if we are administering an arithmetic test to a young child, we may phrase the items as follows: If ten-feet piece of string is divided into two halves, what will be the length of two pieces be? For carpenter, we use the word "board" in place of string, for plumber we use the word "pipe" and for electrician the word "wire". In this way the problem remains the same but phrasing a test in appropriate way grants it face validity.

When the test scores are used to predict future performance on some valued measure it is called criterion validity. For example, Reading Readiness Test scores predicts about the future reading achievements of the students. In this respect the example of aptitude

test about future performance for reading competence should have also high level of criterion related validity.

Secondly the test of dictionary skills might be used to estimate pupils current skill in the actual use of dictionary (as determined by observation) In this case, we are interested in estimating present status and thus in the relationship between two measures obtained concurrently. A high relationship in this case would show that the test of dictionary skills is a good indicator of actual skill in using dictionary.

Construct validity refers to some general characteristics such as abilities, psychosocial traits etc. On this basis, we can predict about the pupil that he has got certain level of Mathematical ability, language ability logical ability etc. Whenever we wish to interpret the test score on the basis of psychosocial trait, we are concerned with construct validity. A construct is a psychological quality that we assume exists in order to explain some aspect of behaviour. The examples of constructs are Mathematical reasoning, Creativity, Intelligence etc. Construct validity involves identifying and describing the meaning of construct, hypotheses regarding test performance regarding theory and verifying hypotheses by logical or empirical means.

The factors that affects validity adversely are unclear direction, difficult vocabulary and sentence structure, ambiguity, improper arrangement of the items, identifiable pattern of answers, emotional state of test taker, level of motivation, inappropriate level of difficulty level of the test items, poorly constructed test items, ambiguity, inappropriateness of the test in respect to the outcomes that are going to be measured.

E. Reliability of a Test

According to Gronlund and Linn (1985), reliability refers to the consistency of the test scores. It means that the test scores remain the same when the same test is administered after some time to the same group of students. The factors influencing the test other than measurement procedure are fluctuation in memory, fatigue, anxiety, emotional strain, guessing, attention, effort, and changes in health, forgetting and the like.

Procedures of estimating reliability are as under:

i. Correlation coefficient indicates the degree of relationship between two sets of scores obtained from the same group of individuals.

ii. Validity coefficient indicates the degree to which a measure predicts or estimates performance on same criterion measure.

iii. Reliability coefficient indicates the degree of relationship between two sets of measures obtained from the same instrument or procedure.

There are different methods to measure the reliability such as test retest method, equivalent form method, split half method, Kuder Richardson method.

F. Features of Modular Teaching

The following desirable features of modular teaching enlisted by Aggarwal 1995, Sharma 1990,and Waheed, 1995

i. It should aim at the distinctive and identifiable skills or set parts of skills. Of course, outcomes other than skills should be the basic objective of the module.

ii. It should be essentially self-teaching, self-contained, self-motivating, and independent instruction. It might be oriented to individuals working alone or in pairs or in small groups. It needs minimum help of the teacher but only guidance to go through the module. The presentation of the lessons along with direction, the guidelines, the tests and the assignments should be arranged in clear and careful order.

iii. The pre-test, the formative test, the post-test, and the answer keys should be made available to the learner for use at his convenience.

iv. It should be fairly short, and the shorter is the better.

v. It should contain specific instruction for the students.

vi. It should blend theory and practice, reading, reflecting and acting and learning opportunities should be well defined, systematically organized and interesting to the learner.

vii. It should be reality oriented.

viii. It should involve the students in real or simulated situations.

ix. It should include an objective measurement procedure and also provide opportunity for the learners to assess their own progress and understanding at regular intervals.

x. It should include a bibliography, suggestive of further readings or sources related to skills.

xi. Module should clearly define objectives in simple language to be achieved by the students.

xii. It should develop ability in the students to make use of the learning of previous units for the help of approaching units.

xiii. It should suggest some additional material for a learner who fined it difficult to follow or further reading materials for a learner who is interested in attaining higher levels of mastery.

xiv. The objectives and the learning activities should be in proper sequence and proceed from easy to difficult.

xv. The subject matter should be correct, concise and presented in an interesting manner. It should be suitable to the level of target learner.

xvi. It should provide opportunities for the learner to interact with other student and the community and make him/her able to use local community resources.

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CHAPTER 9.
Conclusion

It would not be right to consider that the implementation of modular programme is without its problems and shortcomings. Many teachers expressed their opinions about the need to review the administrative organization of a school when modular programme is being implemented. The use of computer and other electronic devices can facilitate the process of modular instruction. However, the review of the equipments and the resources available on campus, the preparation and commitment of the person, who is going to assist on a voluntary basis, might minimize this problem. The role of qualified undergraduate assistants may provide lot of help in solving the problems and minimizing the workload of the teacher. Access to the instructional resources has to be maximizing for the learner.

Module creates motivation by providing well-defined tasks to students. It also develops and promotes good relationship among the students and teacher. It would be wrong, however, to suggest that the move to modular structure required a complete reviewing of the curriculum. A great deal of the existing curriculum, with associated textbooks and resources, can be easily adapted for modular purposes. The teachers find the opportunities to improve their professional skill by working within the new structure. Modular structure exposes the teachers to tackle the technical issues of assessment that may require specific in-service training support

The modules meet the conditions necessary for effective learning. They have fundamental characteristics in their design include self-pacing, immediate confirmation of the right or the wrong answer, active participation of learner, teacher as a facilitator of learning process, economical to prepare, flexible to be administered, easily updated, careful sequencing of learning material, objectives given in behavioral form, flexibility for the learner, and can be administered to individual or group of students. It has been used successfully throughout the world since five decade. This scenario of modular teaching process has inspired the researcher to develop and validate modular in our classrooms. Apart from the prevailing significance of English and its need for our students also urges to

examine the effectiveness of modular teaching in English. Thus a study to develop and validate module in English at secondary level has been conducted. This study will be fruitful and beneficial not only for teachers and students but for education planners, educators, curriculum developer and educational supervisor.

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This work would not have been possible without the financial support of STAIN Teungku Dirundeng Meulaboh. We are especially indebted to Dr Syamsuar,M.Ag who have been supportive of our goals and who worked actively to provide us with the protected academic time to pursue those goals. We are grateful to all of those with whom we have had the pleasure to work during this and other related book. Academics of STAIN Teungku Dirundeng Meulaboh has provided us extensive professional guidance and taught us a great deal about both scientific research and life in general..

Nobody has been more important to us in the pursuit of this book than the members of our families. We wish to thank to our editors for their hardworking and contribution. Most importantly ,we would like to thank my parents, whose love and guidance are with us in what ever we pursue. They are the ultimate role models.

ISBN 978-602-464-064-4

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