

PLANNING AND INNOVATIONS FOR IRAQI SCHOOLS

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by

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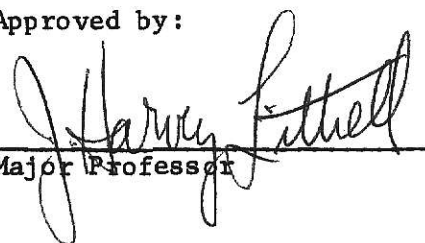
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ACKNOWLEDGMENT

God has granted man, mind. By using this most important tool as a good helm in the interest of mankind, people have already served and are still serving their countries in different ways, fields, and areas. As thousands and thousands of citizens did and are still doing their best for offering their country, Iraq, good services, I would like to participate doing what I can do. I feel that I owe my homeland, Iraq, cradle of civilization, a debt of gratitude. I extend this humble report, "Planning and Innovations for Iraqi Schools", to my country that I love as much as I love my mother, my most favorite sacred symbol in life after God.

INTRODUCTION

The people in Iraq have their own ideals and values mostly religious based on Islamic instructions as well as other religions; but this does not mean that they are living in isolation. On the contrary, they can easily cooperate with other nations in various aspects, particularly educational affairs even though their beliefs are different, undertaking co-existence and friendships principles. Movement toward modernization is the aspiration and hope of the educated people, trying to put their country within the international procession toward accomplishing highly organized objectives to make a better future for all mankind.

Since school is the strongest tool for fulfilling almost all society objectives, American educators like to see the school fully provided with a variety of instructional materials to facilitate teaching. Innovative approaches as well as new technological devices are always being changed and modified in the interest of all citizens. Since the first decades of the twentieth century, the United States of America has adopted a colossal system in rebuilding all aspects of life of the American Society; a system which is based on scientific planning and implementing innovative technological devices to meet the needs of individuals is reliable and successful. A system, using computers, satellites, television on a large scale, a variety of films for educational purposes, and for communication, weather and sports as well, is worthy of profound study and respect.

It is the duty of planners, in Iraq, to establish a consistent educational system on which Arabs, eighty percent of the population,

Kurds, fifteen percent of the population, and other minorities, five percent of the population, can rely. The system should be designed in a strong way to sow seeds of national unity and solidarity and prepare Iraq citizens with the mentality of serving the whole country. Iraq, as an Arab country, should be taken into consideration when planning. Planners should bear in mind that it is a pressing need to think of the best methods and most modern approaches to be put into application, cooperating with other institutes in the advanced countries. Planners also must be always in touch with every innovation in all fields, particularly the field of education.

Purpose of the Report

Because of conflict between old thoughts and new, innovative approaches in education as well as in other fields, are urgently and widely needed. People were, as is their natural trend, and are still working in the hope of achieving better results. Writing briefly about the educational system in the past and now in Iraq may give an idea about the pressing need for change by applying innovative approaches and practices in this sensitive system as much as it can be. By this glimpse about education in Iraq, I would like to relate educational planning, as an innovative approach, with the matter of taking it as necessary priority for raising the educational level of the country. It is also the purpose of this report to throw light on innovations in education that are now being used and followed in the United States and to try to take advantage of putting into application what is suitable for my country within our capabilities of finance and manpower available.

SECTION ONE

A GLIMPSE ABOUT EDUCATION IN IRAQ

It might be useful to give an idea about the way education generally goes on in Iraq at present time. The reason is that it may be considered as a positive justification that can be accepted by all of those who like to see their country in a better educational situation. The rate of literacy, alas, is comparatively low according to the potentials of the country. Only thirty-five percent of the people are educated because of the indifference and disloyalty of the rulers before the 1958 Revolution. After 1958 the Iraqi Government embarked on a good policy of changes in all levels of education; many hundreds of school buildings were used for educating pupils in all nooks of the Republic of Iraq. Opportunities were equal before all citizens, regardless of any difference; enrollments of students in all levels and of both sexes increased; many colleges were opened, and hundreds of students were sent abroad to obtain their higher education in different areas.

Tables 1-5¹ give statistical information about the schools systems in Iraq.²

¹ Roderic D. Matthews and Matta Akrawi, Education in Arab Countries of the Near East, American Council on Education, 744 Jackson Place, Washington 6, D.C., 1949.

² Republic of Iraq, Ministry of Planning; Statistical Pocket Book, 1960-1970, Baghdad, 1972, pp. 206-7.

TABLE 1

The Number of Primary Pupils, Teachers, and Schools in Iraq from 1920-1970

<u>Year</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Schools</u>
1920-1921	8.001	486	88
1941-1942	88.864	3.752	761
1960-1961	760.463	25.130	3.679
1969-1970	1.040.970	48.307	5.183

TABLE 2

The Number of Secondary Pupils, Teachers, and Schools in Iraq from 1920-1970

<u>Year</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Schools</u>
1920-1921	110	34	3
1941-1942	12.926	435	58
1961-1962	139.029	3.715	383
1969-1970	303.050	10.114	860

TABLE 3

The Number of Vocational Pupils, Teachers, and Schools in Iraq from 1920-1970

<u>Year</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Schools</u>
1920-1921	80	—	1
1941-1942	642	56	4
1960-1961	7.975	765	44
1969-1970	10.053	1.046	46

TABLE 4

The Number of Primary Training Pupils, Teachers, and Schools in Iraq
from 1920-1970

<u>Year</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Schools</u>
1920-1921	—	—	—
1941-1942	2.091	82	4
1960-1961	8.313	512	29
1969-1970	3.628	198	21

TABLE 5

The Number of University Pupils, Teachers, and Schools in Iraq from 1920-1970

<u>Year</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Schools</u>
1920-1921	19	1	—
1941-1942	883	32	(colleges)
1960-1961	12.260	852	(2 universities)
1969-1970	37.290	2.068	(5 universities)

As for kindergartens, there was a small number of schools in Baghdad and other major cities for children of affluent families. But after 1958, there was a large number of kindergartens. Table 6 shows the increase in the number of kindergartens.

TABLE 6

The Number of Kindergarten Pupils, Teachers, and Schools in Iraq from 1920-1970

<u>Year</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Schools</u>
1960-1961	11.595	271	110
1969-1970	15.697	619	130

Teaching methods are mostly inductive, deductive, lecturing and demonstration. Students are asked to recite back or memorize what they learn. It is a kind of continuation of the spoon-feeding method which followed in the primary teaching. Students should be taught to acquire a habit of self-reliance and self-instruction with constructive guidance and directions of their teachers. Hopefully, educational planners and curriculum designers will work hard to replace the old teaching methods by following up-to-date methods and innovative approaches for the benefit of the coming generations. The present government in Iraq, led by the Arab Baath Socialist Party, undertook a nationalistic and patriotic policy since 1968 for improving the conditions of the Iraqi people, educationally, economically, and socially. Many progressive decrees were issued, including increments in salaries, appointing almost all the graduates and raising the living standards of the toiling classes.

SECTION TWO

EDUCATIONAL PLANNING AS AN INNOVATIVE APPROACH

Educational Planning:

Methods that were followed along time ago for preparing students to be dependent on others should be discarded. Now it is the time for innovative approaches in every field in life especially the most sensitive field, education. Teaching should be a kind of friendly and cordial relationship between teachers and students. This type of teaching makes students self-determining and strong-willed members for organizing a civilized society. Education aims at preparing a system "to promote the dignity of each individual that lives in the society".³

Innovative approaches are designed to create instructional situations which stimulate and drive students to pursue everything at their own pace with the help of their teachers. Effort of reformers, educators, philosophers and thinkers have been incorporated and modified across centuries from Plato until the present day to find pertinent and most useful methods and techniques for the benefit of the student. Authentic educational planning plays a great role in the teaching-learning process in terms of interacting and cooperating with the most novel teaching methods, techniques, instructional materials, and concepts in different areas.

Planning means knowing how to plan and dependence on profound understanding of the philosophy of the country concerned. Planning

³ Bruce Joyce and Marsha Weil, Models of Teaching, Columbia Univ. Teachers College, Prentice-Hall Inc., Englewood Cliffs, New Jersey, p. 49; see also Donald W. Oliver and James P. Shaver, Teaching Public Issues in the High School (Boston: Houghton Mifflin, 1966) p. 9.

involves both process and content. There should be a kind of unity between content and form, targets and manners, and arts and principles. Planning is a scheme and a scheme is a collection of certain procedures taken for carrying out a clear target. Every plan has two elements;

- a. A goal or a target to be reached.
- b. Ways clearly planned, for getting to that target.

A good plan should not depend on direction and prediction only, but it should follow the procedure of knowledge, prediction, and ability. To know is to study everything and to predict is to interfere in the course of events, to guess what will happen in future as possible as it can be. A planner should be positive and scientific when he interferes. He should not stand away from what is going on in his society like a spectator. He must listen, mix, and interact with his community. Planning is the only scientific way of making a modern man who desires to control his environment. A modern citizen refuses to live in an unbalanced and uncontrolled world. Man of present time has abandoned all old views of letting things take place accidentally. By relating educational planning to innovative approaches with spending much effort, any hardship can be overcome.

Money allocated for undertaking a sound educational system based on innovative teaching approaches and up-to-date technological instructional materials will result in success and progress in various aspects. No matter how much money is invested, it will be in the interest of all citizens in the long run. Returns of invested funds for strengthening any system, will be greater and obtained within a shorter time. Returns of invested money in the educational field can be obtained within a period of nine to

ten years, from twelve to eighteen years in industries, and from twelve to fifteen years in agriculture. So, well-studied planning in education leads to vocational and social promotion. This can easily happen by preparing gifted students who cannot afford to complete their higher studies, if they are helped. Planning should take into account allocating sufficient funds for covering every nook of the society. Wise planning should also take into consideration habits, customs, and traditions of all ethnic groups.

Good educational planning is that which helps any citizen be able to be teacher of himself all his life as Rosseau said, "Being able to learn not only be learned." Innovations have the lead in this regard, knowing that an innovative plan should include many possibilities to be applied according to what the future calls for. It should be subjected to a timetable during fulfillment stages for knowing its strengths and weaknesses.

Kinds of Plans:

There are three kinds of plans:

1. Long-range plan (5 to 20 years, or more).
2. Mid-range plan (3 to 10 years). This kind of plan is practical and more applicable because all difficulties of prediction of the long-range plan can be avoided.
3. Short-range plan. It is really a part of the mid-range plan when dividing it into parts.

Types of Planning:

There are four major types of planning mostly affected by political systems.

1. Obligatory (binding) planning as it is followed by the Soviet Union according to which the overall process of planning is directed and guided by central authority.
2. Guiding (leading) planning as it is followed by France. There is a kind of indirect obligation in this planning.
3. Common Planning. It includes economical and social aspects of life.
4. Partial Planning.

I would like to suggest that the second type of planning, the leading one, a little bit modified, may fit Iraq in addition to some additional proposals;

1. Inculcating in our students humanitarian principles for preparing friendly citizens with all nations.
2. To understand ourselves to improve our situation with others.
3. Taking advantage of the second type of planning for establishing a system of force based on justice because "justice without force is powerless; force without justice is tyrannical."⁴
4. Constituting unprejudiced committees for follow-up to make sure of carrying out all the plans of the system.

It might be of use to repeat that social life of any community is based on three factors;

⁴ Blaise Pascal, Pensées, Part I Article IX, No. 8, (C. 1969), Editions Garnier Frères, 6, Rue des Saints-Pères, Paris, 1964.

1. Education
2. Population
3. Economy

planning, for this reason, should consider different forms of preparing good citizens, preschool education of children, education in formal educational institutions and at home for children, teenagers and adults and in other institutions not related to education such as the army, or in business firms. A planners' concern is with the formal educational institutions or the school system, both general and vocational. Some educational systems demand education and others demand educated persons. In other words, should we as educators and teachers, aim at pouring into our students' minds rote information or practical and useful information? Should teachers teach their students to perceptualize (grasp) or conceptualize (transform) or generalize (transfer)?

The Purpose of Planning is:

1. Decision-making which has very much the major goals of the educational system. For achieving these goals, teachers, buildings and equipment are needed.

2. Technical preparation of the plan.

3. Implementation and control.

The quality and quantity of the needs, and teachers, buildings, and equipment, should be well-estimated to know to what degree their availability in the technical preparation of the plan is. If these needs are found unsuitable, the plan should be revised. If they are promising, the planners are encouraged to step forward to a more detailed and

enlarged planning. After plans have been accepted by people then planners see that the plans are implemented. Plans are applied step by step and time may be shortened when people react with them positively. Implementation and control are the only way to examine the attainment of the goals. The administration of the country concerned is responsible for this operation. Prudent and reasonable planning needs the help of demographers for providing dependable data about the population. The help of economists is needed as well. Planning, also, should not neglect viewpoints of other parties in society to plan an integrated system.

Curriculum and Innovative Planning:

Planning is an innovative way of preparing a relevant curriculum that should be determined according to what students need to learn. Curriculum and programs should be designed in a direction toward the student; the student is not brought toward the curriculum. To plan programs innovatively means to focus on the role of the student in the learning process as an active and self-guiding person while throwing light on the part of the teacher as a helper and facilitator and not a person with the authority of deciding everything. Teachers are no longer knowledge transmitters, students are not knowledge receptors either.

Curriculum planners should bear in mind that curriculum is like "a three legged stool."⁵ One leg represents the nature of knowledge, the other leg represents the nature of society and the third represents the nature of the individual. Educators and planners know that wants

⁵ Jack R. Frymier, "Stimulation and the Need to Know," Center for the Study of Motivation and Human Abilities: Motivation Quarterly, Vol. 1, No. 2, Winter, 1971, p. 2.

are clues or rather the best keys for realizing the needs, so the disciplines or knowledge, society, and the individual are the only dependable sources for knowing students' needs better. Students' needs are academic, social, and individual needs. But the question is which of these needs is the most important; taking into consideration that man is the end, subject matter is the means, and society is the result.

Providing our schools, as possible as it can be, with animals, living plants, and different kinds of objects that can be manipulated by students is another important aspect in planning. Students will learn many things through direct contact with these animals, plants, and objects. Their abilities are no doubt improved and their attitudes toward life and toward each other are improved too. Students are also provided with practical experience by observation. This supports their theoretical study and urges them to more pursuits and research. Students will be in touch with their environment because life is to be lived not only taught. Practice is very useful and it is known that "an ounce of practice is worth a ton of theory."⁶

⁶ Vincent R. Rogers, Teaching in the British Primary School, (New York: The MacMillan Company, 1970), p. 275.

SECTION THREE

INNOVATION AND ADOPTERS OF INNOVATION

Meaning of Innovation:

Innovation means change that aims at taking the society from good to better and best. Innovation has a great and dangerous meaning; great when it is used wisely and prudently for helping people change their old and boring ideas into promising and good ideas and their tiresome ways of living into useful and happy ones; dangerous when it goes in the extreme direction of changing all hopes and expectations of people into disasters and disillusion. Innovation needs all citizens to work as one sturdy person directed by an elite of highly astute designers and planners. Innovation does not mean something to be taken lightly and without serious intent for improving society conditions that call for change; nor is it something that people may think of as passing time only. Innovation means the introduction of new ideas and novelties, and using useful and practical devices for the benefit of all society members. Innovation is a revolution in changing old customs and harmful rites and it is a positive means of eradicating evils in society.

Why Innovation?

To adapt to new things that rehabilitate various aspects of society is a pressing need. Adaptation is the strong foundation on which any change or innovative process is based. Those who plan to change the on-going values and practices of their society, have humanitarian and

reformatory purposes for raising the level of the society concerned. Change is contemplated for the benefit of people, though the majority are liable to stand against it at first.

Systems, out of tune, should be changed because of their invalidity. Such systems may resist any outside intervention.⁷ New practices that are planned to replace old ones play an important role to change. This importance emerges from the fact that school may not be in a state to respond to the environment. The innovators prepare new curriculum programs. Schools are to study these programs well and may cooperate with outside change agents in adopting the programs, because it is quite clear that the school is the most effective instrument for responding to social conditions and trends that call for change.

Innovations and Interest:

Interest is the most important starting point for doing everything because nothing can be done effectively without interest. Things, done without desire and interest, appear paralyzed and incomplete. To innovate means to change and to eliminate old ways. Change must be of use for the society, otherwise it turns into destructive means. All aspects of life require innovations and should be changed to new and useful things being needed by people. Schools, farms, factories, commerce and trade, administration, business, markets, hospitals, defense communities, associations, policies and the like should open wide doors and room for innovative ways and techniques.

⁷ Arthur J. Lewis, "Innovation and the Open School," Teachers College, Columbia Univ., New York, New York, 1967.

Since education is responsible for preparing all society agencies and school is the best instrument for this duty, it is hoped that successful and valuable curricula are developed innovatively. It is absolutely the concern of the educational planners, working with economical and social planners and program designers. To make any change in curricula should not depend alone on decisions taken by teachers and other school personnel. Teachers and other school personnel formerly shaped or determined the kind of educational program for meeting the needs of a specific school system. Generally if curriculum development is undertaken by teachers only without administrative approval, it will be a slow process. Teachers' suggestions in curriculum development are important and should be used along with suggestions from other participants such as administrators, students, and lay persons.⁸

The best innovative solutions to practical problems and the best materials may have no effect, if people are not concerned to learn how to use these materials properly. The more practice people have, the easier they can handle any materials and the more benefit can be obtained.

If new materials are to be spread among people in a shorter period, they should be diffused in practical manners. These materials will help solve problems of the society concerned or at least diminish most of them. Teachers well trained for using instructional materials help make our pupils willingly attached to their schools. Pupils learn better by using real things and objects to reinforce what they have already learned.

⁸ J. Harvey Littrell, "Lay Participation, A Guide for Education in Working with Citizen Groups that are Studying Curriculum Problems", The Clearing House, Nov. 1961, Vol., 36, No. 3, pp. 137-9.

verbally. But innovations really need some important steps to be diffused on large scale. The best activity and most useful means for diffusion is demonstration. Demonstration aims at building up desired outcomes in special audience. Importance and effectiveness of inventions based on well planned and guided demonstration can convince practitioners of the validity of this activity.⁹

What is Behind Innovation?

Thinkers, inventors, and philosophers do not find life easy to pass smoothly when they want to change the surroundings and environment for the benefit of man. But through repeated attempts and by working hard, they can find out or invent relevant media for facilitating life.

It should be taken into consideration that things thought of, discovered, or invented bring their advantages and disadvantages with them. If the scale of good points exceed horrible and undesirable ones, they will be accepted by people in terms of being practical and useful. Usually acceptance of new things is a gradual process for people. Many reasons lie behind this fact. Fear of the unknown, lack of sacrifice, stability rather than hurriedly shifting to a new stage, and loss of social standings because of jealousy are hindrances in the way of any change. Innovation and change impose themselves against the will of those who work for themselves only. It is kind and humanitarian to help people understand new concepts so that they may get rid of being under the influence of selfish elements of society. It would be useful too, in the long run, to let people adopt their desired things without being compelled, because people are the

⁹ Egon G. Guba, "Diffusion of Innovations", Educational Leadership, Vol. 25, No. 9, Jan. 1963, pp. 292-93-94-95.

energy and fuel for pushing the innovators' machine forward. It is understood that no machine can work without fuel and without being maintained. Innovators, for these reasons, should be clever enough and careful when trying to put novelties into application. They should cooperate with psychologists, sociologist, demographers, economists, planners, political powers, theologists, lay persons and all influential factors of society. This cooperation is necessary because innovators may over emphasize some aspects of education and neglect others. To help students grow cognitively, for instance, technological innovations can be used; but it will be dangerous if other domains, particularly the affective domain, is neglected. Education is of the whole man." And "the whole is more than the sum of its parts."¹⁰

Classification of Adopters:

Innovators are the vanguard of the pioneers in adopting new notions in society. They are "the first members of a social system to adopt new ideas. Innovators are venturesome individuals. They desire the hazardous, the rash, the avant-garde, and the risky."¹¹

Farmers, school administrators, industrial firms, and Aborigines call innovators as "... starry-eyed" experimentors or people with their "... heads in the clouds."¹² Since innovators differ from people because

¹⁰ R. S. Peters, Ethics and Education, Atlanta, Scott, Foresman, 1967, p. 9.

¹¹ Ross, Donald H. (editor) Administration for Adaptability, New York, Metropolitan School Study Council, 1958, p. 25.

¹² Ibid.

of their quick behavior in innovating new things, so their behavior and moves should be well observed and understood. They are always put out of the local circle of their peers because of their affiliation with new practices. In other words they behave so strangely that other people are not familiar with such behavior. Innovators may be considered as effective means of spreading new ideas in spite of geographical distances that are likely to be found between them. They may form cliques for the purpose of implementing their new ideas, no matter, if their society accepts them or not.

Innovators tend to be young because the young are usually less attached to traditional values. They may follow traditional values and practices, but they have the ability of quitting them as soon as they adopt new things. Innovators are of high social status because of their education or may be they are of higher economic status. Innovators are known as cosmopolite. They put forth opinion leadership, trying to put their new ideas into application. Innovators are viewed as deviants from the norms of the social system by their peers and by themselves as well. They are 2.5 percent of the society. Innovators may be characterized as "pioneers, lighthouses, advance scouts, progressists, non-parochials, experimentals."¹³

Early Adopters.

Early Adopters are the leaders of change and better than innovators in making change. Early adopters are respected for their judgment.

¹³ Everett M. Rogers, Diffusion of Innovations, New York, Free Press of Glence, A Division of the MacMillan Company, 1962, pp. 150-51.

They tend to be younger than other societal categories. They are 13.5% of the people. Teachers can contribute effectively with other change agents without notable losses.

The Early Majority.

They form 34% of the society. They come after Early Adopters in adopting new ideas. They are known as deliberate people who take careful thoughts or consult with others in reaching decisions.

The Late Majority.

Those people are critical and skeptical. They form 34% of the population.

The Laggards.

They are the last people to adopt new things. The Laggards are very suspicious. They doubt to try anything. They are traditional and polite. They are 16% of the society.

Change Agents:

The person who tries to play the role of a change agent has the intention of influencing others in an interesting way to adopt decisions. He outlines, if not determines, the direction as he thinks it desirable and he helps others to continue to do something. A change agent is one who supports people to use new things for their own benefit.

It is wiser and better then to prepare society by some way or another for innovations than getting people astonished and lost by asking them to do things that they do not even have an idea about. The following five stages¹⁴ are worthy of being well designed. They are useful and valuable for preparing people for innovations;

1. Awareness:

The individual learns of the existence of the innovation. But to make people aware of emerging novelties does not mean adoption. Mass communication can be used in this respect.

2. Interest:

The individual looks for more information and considers the merits of the innovation. The individual has not judged yet, he is only interested.

3. Evaluation:

The individual makes a mental application of the innovation and weighs its merits for his particular situation. Face to face communication is useful in this regard. Any innovation can be developed according to one's society in a way people are expected to accept it. The stronger they understand innovations the better change is accepted.

4. Trial:

The individual applies the innovation on a small scale. The innovation can be enlarged, depending on its success.

5. Adoption:

The individual accepts the innovations for continued use on the basis of a previous trial.

¹⁴ Egon G. Guba, "Diffusion of Innovations", Educational Leadership, Vol. 25, No. 4 Ja., 1968 p. 292.

There is another definition for diffusion of innovations, including seven stages suggested by Katz.¹⁵

1. Acceptance.
2. Overtime.
3. Some specific item - an idea or practice.
4. Adopting unit by individuals, groups or others.
5. Specific channels of communications.
6. A social structure preparing citizens for new settings and practices.
7. A given system of values and culture.

It is obvious, through understanding Rogers and Katz definitions, that an adopting unit with emphasis on acceptance is the common element. So the end and final result of diffusion of an innovation is the acceptance by adopting people. Bhola¹⁶ defines innovation as follows; "... an innovation is a concept, an attitude, a tool with accompanying skills or two or more of these together introduced to an individual, group, institution or culture that had not functionally incorporated it before."

Important Elements Needed for Innovation:

It should be noted that any concept or proposed change does not become innovation without some important elements as;

¹⁵ Elihu Katz, Martin L. Levin, and Herbert Hamilton, "Traditions of Research on the Diffusion of Innovations," American Sociological Review 27: 240, April 1963.

¹⁶ Harbans S. Bhola, "The Configurational Theory of Innovation Diffusion," School of Education, the Ohio State University, 1965, see also Educational Leadership, Vol. 25, No. 4, Ja., 1968, p. 292.

1. If it does not spread widely, it cannot be considered as an innovation. Any innovation should not be confined within a small area. Beliefs, points of view and concepts must be understood by others so that they may have been called innovations.

2. An innovation, if considered worthy of implementation, should win the acceptance of other people.

3. The process of more general implementation must have been initiated.

4. An innovation is accepted or supported when it does not interfere with beliefs and tenets of people, especially the most sensitive aspects.

Innovation is a process. Change, as innovation, takes place gradually. For change process, there should be a certain kind of people who create thoughts. It is the duty of interpreters to make these thoughts easier to be understood by those who translate them into practical practices. Without those people who create thoughts, interpreters, and those who put them into application, there is no innovation or change. Desire, chance factor, and practical plans of action are required by any change, so it might be useful to know what criteria are needed:

1. Suggested changes should be connected with specific needs of society.

2. If the present system fails to fulfill its task, manners, or ways, it must be studied before being replaced by any.

3. Planners should know, if these needs, being met by other approaches, were successful in different places and areas or not.

4. Is the proposed change in relation to suitable researched data to be depended on?

5. Changes should also be evaluated during planning and application.

6. Change, being evaluated, should be studied well whether it is applicable in other areas rather than the one in which success is achieved.

Innovation in Agriculture and Industry can be accomplished more rapidly than in Education because of the research emphasis. It is known that "... educational adoption is relatively slow when compared with medicine, agriculture or industry." The reason for this is "... the absence of scientific sources of innovation in education."¹⁷

What Requirements an Organization Needs to be Innovative:

There is no doubt that putting new thoughts and innovations into application needs to be worked on materially and tangibly. It cannot take place in a vacuum. It simply needs well trained personnel, modern devices and comfortable and healthy buildings for work. How can these necessities be reached? They can be fulfilled through the following requirements:

1. Money, time, and skills and good will are essential resources.
2. Experienced employees who should develop themselves thoroughly through good training under well prepared trainers. Employees must be trained in a way that they should have confidence in themselves.
3. Let them work with freedom, ease, and a low level of support after they go through intensive courses of training.
4. Interest in professional development that provides desire for stimulating search for more activity.
5. Personal security is highly needed, but a certain level of problem insecurity and challenge will be good motives.

¹⁷ Rogers, Everett, Change Process in the Public Schools, Oregon, Univ. of Oregon Press, 1965, p. 60.

6. Innovators should be free from any control.
7. Employees in the field of innovation need, to some extent, autonomy and self-direction. They should be given choice where they like to work.
8. Group processes are preferred particularly in areas that require collective efforts.

SECTION FOUR

NEW PRACTICES IN UNITED STATES

EDUCATION AND THEIR ADAPTATION TO IRAQ

Teacher Aide:

Innovations aim at taking some obvious actions to facilitate better teaching. The most needed things for this are: accepting reasonable numbers of students in classes and creating the post of a teacher aide to be filled by bearers of suitable diplomas. Iraq can take advantage of following this procedure by which teacher aides help teachers in fulfilling many tasks. Their duty is a kind of clerical and monitorial assistance. In countries where there are great numbers of unappointed teachers and over crowded classes, such proposals may work well. In Iraq this procedure can be applied. Primary schools welcome the idea of having teacher aides. Two targets are hit together; having our primary schools with a typical kind of assistance for improving teaching-learning situations and solving the problem of having teachers without jobs.

Though it is different to some extent from the past, teaching process in most of our primary schools is as the following; every primary school has a headmaster (a principal) helped by one or two assistants, depending on the number of students. These assistants have to help the headmaster with taking limited number of periods. Sometimes they ask teachers for extra work in addition to their own work. For some reasons or others, teachers reluctantly do this with an attitude against the school as a whole. To put an end to these bad conditions, it is wise to appoint teacher-aides to help teachers in observing pupils during recesses, looking after them, keep order in school, answering phone calls or

receiving pupils' guardians, playing a go-between role, and other school affairs. What is going on now is that the principal and his assistant(s) prepare a table with the names of teachers and their duties distributed on the days of the week (six days beginning Saturday through Thursday). This daily duty should be carefully fulfilled by the monitor teacher otherwise order in school is disturbed and he may be punished.

The suggestion of appointing teacher aides to assist teachers, eliminating some of their troubles, fears and worries, is a unique one. It will be of great advantage in the long range, though it is a heavy load on the budget. It is quite known to educational planners that money invested in the educational field results in great results within a shorter period, needed in other fields such as agricultural and industrial ones. So serious intent and good will are needed from all who have the desire to serve their country to put an end to any kind of fragmentary and unsuccessful attempts. Priority should be given to education, if fruitful results are liked to be reaped and deleterious out-comes are to be avoided.

Suggested Duties for Teacher Aides:

1. Typing and preparing stencils (primary schools and even most of secondary schools in Iraq are in lack of such facilities). If typing is taken care of as a curriculum unit, a new kind of study will be included in the institutes of the country. Teachers usually get their test questions or notes typed outside the school. If they can get them typed inside their schools, there will be no problem of losing time and effort.

2. Supervising pupils and preparing classrooms for the following day's instruction.

3. Helping pupils during library period or may be conducting small group drill.

4. Operating visual media (few schools have this facility) and coordinating film and tape service (very seldom films and tapes are shown and heard in the primary and secondary schools of Iraq).

5. In rural areas those aides can be substituted by technicians who may train rural pupils how to operate various types of machines that can be used in raising the agricultural level of Iraq.

6. Taking care of all school materials and for maintenance purposes.

7. Checking daily on the health of pupils, this procedure, if well undertaken, will get our pupils, men of future, used to healthy habits that may be a frugal way for reducing health expenditure very much which can be used in other affairs.

8. Arranging parent-teacher conferences for finding relevant solutions to pupils' problems. They may be taught during study periods how to handle anecdotal studies or observation.

9. As a result of this innovative procedure in our educational system teachers will be glad to accomplish their duties. They will not need much inspection or supervision. They will be self-observant people since they are not loaded with work.

10. Inspection system or supervision should go hand in hand with the above mentioned innovative procedure. Inspection should be based on democratic and humanitarian principles.

11. Teacher-aides help teachers study their pupils well to figure out their problems for reaching suitable solutions because they are given more opportunities for that.

Technological uses in the American Institutes:

With the progress of technology, methodology and teaching techniques are now different from the past. It is now the time of computer and the most modern methods such as competency-based education which is a futuristic approach through which the teacher is not everything in teaching but a facilitator. Technology, all over the world, particularly in the United States, is now flourishing and achieving excellent services in all aspects of life. Innovative approaches, on the other hand, have the lead in presenting useful and valuable practical practices and theoretical information at different levels. The most useful innovative devices that can be used as accessories in teaching are;

1. Educational television on which fifty minute class periods are preferred rather than fifteen or thirty minute television lessons because they have no adequate instructional basis. To use every possible method is to equalize opportunities for learning. Now television in Iraq is being used for this purpose and for teaching illiterates two or three times a week. But it is still in need of successful and more effective ways and for longer periods than now. It is recommended that television should be used on large scales on the campuses of the Iraqi Universities; in University of Baghdad, Al-Mustansiriyah University, both located in

Baghdad, Mosul University in the north, Basrah University in the south, and Sulaymaniya University in the north east where the Kurds live, in addition to Baghdad College, following American style, located in Baghdad, lately nationalized, and College of Theology located in Najef.

2. Satellites:

Satellites are bodies that are sent from the earth to outer interplanetary space for the purpose of studying the weather conditions, cosmic rays, and other scientific subjects. These satellites send back to scientists on earth dependable data, covering various areas such as geographical, physic, and astronomical ones. Information, obtained from the complicated instruments in these satellites, can be used for solving many problems. They are used in U.S.A. for TV programs and communication means.

3. Computer-assisted instruction:

Computer-assisted instruction is an important innovative way for teaching different varieties of programs. It can be used by Iraqi schools because of its valuable contributions in instruction. Developing countries are in need to undertake such innovative methods. There are two kinds of computers; the analog, the oldest type, by which results are obtained by measuring quantities usually in the form of electrical impulses or signals. This kind can be used for many purposes. This type is cheaper than the digital computer because it has fewer parts. The digital computer, which is the most modern, counts and uses numbers, letters or verbal symbols. It is more expensive and more difficult to program than the first kind.

Plato program was initiated at the University of Illinois. It has been committed to educational purposes as well as the engineering and economic problems. Plato I (Programmed Logic for Automatic Teaching Operation) started in 1960 June.

Plato system is a computer-based teaching system. It provides teachers a means for individualizing student instruction. In this system teacher, computer, and student are members of interactive team. Teachers design the instructional material and the computer presents it to the student. The computer monitors and evaluates the students performance at the same time. Each student works at his own pace on material which provides special information used when problems arise. Revision of instructional material by the teacher is to modernize and improve the instruction. This system produces and evaluates easily any lesson material. It gives the instructor or the designer a full control over the style and strategy of teaching. It records and evaluates automatically the student and lesson performance.

Not only the University of Illinois is using these authentic educational facilities, but other universities, institutes and industrial corporations have begun to undertake the possibility of using modern computer technology for education. Though such programs need a lot of money, their results will be greater scientifically, economically, educationally, and socially. Wonderful development of plato program in such a surprising and fast way is a good proof that its advantages surpass all kinds of fears and doubts. Despite the great number of computers (50,000 computers installed in the United States and by 1975, over 80,000 will be in service,

one-half of which will be used for computer-assisted instruction it is generally agreed that there are a lot of unmet needs in education in terms of quantity and quality. If it is said in this way about the most advanced country with almost all people educated, how about other countries, especially developing and underdeveloping countries where educational systems are still creeping.

To consider the following advantages obtained from computer-assisted instruction, may throw light on the validity of this method.

1. Flexible scheduling can be used for getting as much use out of facilities as possible.
2. Individualizing instruction.
3. Students compete on the basis of performance rather than time.
4. Isolated areas can receive good instruction based on quality.
5. Courses can be revised in a more rapid and easier way than textbooks.

For the above mentioned advantages and others, it is recommended that developing countries are in need of such programs given by computers. It is the only way for redeeming previous mistakes in their educational systems intentionally or unintentionally committed by former authorities. Iraq is really in need of such programs, particularly at its universities. I think Iraq can afford to buy even a limited number of computers for developing our programs and implementing innovative devices to be within the international caravan. Though the Ministry of Planning in Iraq is now using some American Computers, it needs more computers to be at the level of meeting the Iraqi citizens increasing needs.

4. University libraries in Iraq can take advantage of using technological innovative instructional materials. Micro-film, microfiche, micro-printing, micro-card, xerox machines and other kinds of machines that can be used as facilities in teaching are urgently needed. Students, scholars, university professors and all interested people can find good opportunities to learn better and to reinforce what they are taught for reaching the objectives already stated.

The following items can be widely used as useful instructional materials in media centers in schools and colleges;

1. Television
2. Tapes
3. Cameras
4. Films;
 - a - roll films
 - b - slide films
5. Bulletinboards of most modern techniques
6. Overhead projector
7. Transparency;
 - a - thermoheatgraphic
 - b - diazo
 - c - color lift process

Competency-Based Education ... A Futuristic Approach:

Competency-based education is an approach for demonstrating competencies by the learner defined as clear objectives with activities identified for facilitating the students achievement of stated objectives.

Competency-based education is really an educational philosophy. Understanding this innovative approach asks educators to show much patience and commitment to assisting students to reach their potential. Teachers, with an open mind to new ideas for better learning-teaching settings, are advised to follow this philosophy. Instructional objectives and students' ideals and desires can be interrelated to make a good program that fits the teacher's needs as well as the student's needs. Students are accountable for attaining a given level of competency in performing the important tasks. Competencies are special understandings, skills, behaviors and attitudes represented by knowledge the cognitive domain; attitudes, or the affective domain; and behaviors or the psychomotor domain. In case of predetermining competencies it should be clear about what to be learned and under what conditions the student is responsible for demonstrating this competency. Achievement is the criterion for measuring efficient teaching by going through modules already stated.

Competence is defined as 'adequacy for a task' or 'possession of required knowledge and abilities." Competency means ability to do while the traditional emphasis is on the 'ability to demonstrate knowledge."¹⁸

The term 'competency-based' has two vital characteristics;

1. Precise learning objectives defined in behavioral and assessable terms.
2. Accountability, learner accepts responsibility. He must be in charge of meeting the established criteria.

¹⁸ Competency-Based Teacher Education, Edited by, W. Robert Houston and Robert B. Howsam, Science Research Associates, Inc., Chicago, Palo Alto, Toronto, Henley-on-Thames, Sydney, 1972, p. 3.

Competency-based education is now taking different names; competency-based teacher education, which is a good vehicle for preparing people who like to take teaching as profession, competency-based instruction, competency-based programs, individualized and self-paced programs, and competency-based approach to Competency-based education is criterion-referenced; the student is evaluated by his own attainment of a set of objectives. It is quite different from the norm-referenced approach in which the individual is compared to the performance of a group.

In competency-based instruction, modules are used. Each module is designed in the following way;

1. The rationale (the importance and relevance of objectives).
2. The objectives (stated in criterion-referenced terms).
3. Pre-assessment (to test the learner's competence in selected prerequisites). This procedure is usually done before letting the learner meet the objectives. If he is good, he does not need to go through the activities of the module.
4. Instructional objectives.
5. Learning activities; procedures for attaining the competence specified by the module objectives.
6. Post-assessment; for measuring competency after the learner goes through the learning activities.
7. Feedback, for telling the learner about his performance and progress. It is also called remediation by which the learner may be recycled through the module until he learns well.

8. Challenge activities; to see to what extent the learner has developed competencies through which he may react to different situations.

I wish this innovative approach would be followed in the Iraqi educational institutes. Our students will get a better way for pursuing knowledge at their own pace. They will change their attitudes toward life by practising new kinds of relationships between them and their teachers.

Open School

Open school, open classroom, a school for tomorrow, and like terms aim at achieving one end, that is, open education. Open education provides students with better concepts by which they look through the bright side of life. Open education is "... an approach to teaching that discards the familiar elementary classroom setup and the traditional stylized roles of teachers and pupils for a much freer, more informal, highly individualized, child-centered learning experience."¹⁹ The most basic principles of this approach are respect for and trust in the child. People, concerned in preparing programs for open school, should bear in mind the assumption that all children have the desire to learn and will learn. Open education is based on freedom and responsibility of the learner rather than conformity and obeying orders and directions.

Children are able to learn by themselves, from each other, and from books. They learn by mixing people around them and manipulating

¹⁹ Open Education, Edited by Edwald B. Nyquist and Gene R. Hawes, Toronto New York, Bantman Books, Inc., 1972, p. 83.

and doing things at their own pace. Teachers help and guide. The new relation between children and their teachers is based on real appreciation and deep understanding of every child. Children learn from experience, from exploration, and from active participation of finding out. Young children learn by actively participating in their learning. Learning by talking and discussing, and learning through play are bright facts about children's learning.

Open school does not mean transmitting the culture from one generation to another. Education should have relevance to the present and future world, that is because relevance to purpose and need is the only test of value. Open school is a way of educating children to be ready for all future possibilities. It is life itself. There are few whole-class lessons, no standardized test, and no enforced curriculum in open school. Open classrooms support "... the natural drive toward learning."²⁰ "Open classroom allows students to identify and pursue their own interests in their own way, with the teacher acting primarily as facilitator."²¹

Open education helps find a cooperative atmosphere rather than a competitive one. It is a shift from a teacher-centered approach to a child-centered approach. It focuses on the student as a center of activity. The student is the active learner, not a passive person and not only a knowledge receptor. The teacher is not only a guide and a helper, but a friend to all pupils. He is not a knowledge transmitter

²⁰ The Open Classroom Reader, Edited by Charles E. Silberman, Vintage Books, A Division of Random House/New York, 1973, p. 39.

²¹ Rupert N. Evans, Kenneth B. Hoyt, Career Education in the Middle/Junior High School, Salt Lake City, Olympus Pub. Co., C. 1973, p. 306.

and the dominant person in the classroom. Campaigns of awareness on television, radio, press, and meetings help prepare people in Iraq to accept open education to be applied in the Iraqi schools.

SECTION FIVE

SUMMARY AND CONCLUSIONS

To sum up, I would like to conclude my report, saying that everything in life has changed. From primitive and simple ways of teaching to the time of using television, computer, modern laboratories and other innovative appliances. Farming has changed greatly; business and industry have changed; various kinds of new products are at hand now. Medicine has changed too.

As I tried to throw light upon the most useful innovative approaches and materials being used in the United States now, I would like to assure the many possibilities that can be used for raising the level of teaching in Iraq. Since life is always changing, schooling also must change. American educators and others lay emphasis that; team teaching, television teaching, modern mathematics, foreign language labs (very important to Iraqi schools for best teaching), large group teaching, programmed learning, integrated studies, ability grouping, non-graded rooms and the like are relevant methods in teaching.

The philosophy of good programs is to get the students in the habit of pursuing every innovation of his specialization or close to it. Rote teaching is boring. Students should be provided with useful knowledge and dexterities to be users of what they have learned and not test passers. School primary duty is to take into consideration desires, needs, tendencies, wishes and aspirations of the majority, in other words open school lays emphasis on the idea of leaving students learn according to their interests. Educators and planners should bear in mind that

diversity of time, place, mode of thinking, conditions, and mentality of generations are different, so change is necessary and inevitable and "all things make room for others and nothing remains still" and "there is nothing permanent except change."²²

²² Rogers, Author K., A Student History of Philosophy, New York, The MacMillan Company, 1928, p. 15.

SECTION SIX

BIBLIOGRAPHY

1. Roderic D. Matthews and Matta Akrawi, Education in Arab Countries of the Near East, American Council on Education, 744 Jackson Place, Washington 6, D.C., 1949.
2. Republic of Iraq, Ministry of Planning; Statistical Pocket Book, 1960-1970, Baghdad, 1972.
3. Bruce Joyce and Marsha Weil, Models of Teaching, Columbia University Teachers College, Prentice-Hall Inc., Englewoods Cliffs, New Jersey, 1972.
4. Blaise Pascal, Penseées, Part I Article IX, No. 8, (c. 1669), Editions Garnier Frères, 6, Rue des Saints - Péres, Paris, 1964.
5. Jack R. Frymier, "Stimulation and the Need to Know", Center Study of Motivation and Human Abilities, Motivation Quarterly, Vol. 1, No. 2, Winter 1971.
6. Vincent R. Rogers, Teaching in the British Primary School, New York, the Macmillan Company, 1970.
7. H. Correa, Quantitative Methods of Educational Planning, International Textbook Company, Scranton, Pennsylvaina, Unesco, 1969.
8. Arthur J. Lewis, "Innovation and the Open School", Educational Leadership, Vol. 24, May 1967, p.p. 673-5.
9. Dr. J. Harvey Littrell, A Company - Based Approach to the Study of Curriculum Development, The Clearing House, Vol. 36, No. 3, Nov. 1961.
10. Egon G. Guba, "Diffusion of Innovations", Educational Leadership, Vol. 25, No. 9, Jan., 1963.
11. R. S. Peters, Ethics and Education, Atlanta, Scott, Foresman, 1967.
12. Ross, Donald H. (editor), Administration for Adaptability, New York, Metropolitan School Study Council, 1958.
13. Everett M. Rogers, Diffusion of Innovations, New York, Free Press of Glence, A Division of the Macmillan Company, 1962.
14. Rogers Evertt, Change Process in the Public Schools, Oregon, University of Oregon Press, 1965.

15. Elihu Katz, Martin L. Levin and Herbert Hamilton, "Traditions of Research on the Diffusion of Innovations", American Sociological Review 27: 240, April, 1965.
16. Harbans S. Bhola, "The Configurational Theory of Innovation Diffusion", School of Education, The Ohio State University, 1965, see also Educational Leadership, Vol. 25, No. 4, Ja. 1968, p. 292.
17. H. A. Tonne, J. Bsns, "Innovation as the Solution", Ed., Vol., 42, Ja. 1967, p. 136-7.
18. H. S. Broudy, "Innovation and Curriculum Decision", C. T. A. Vol., 63, Jan., 1967, pp. 14-16.
19. J. Tranzman, "New Technology, Look Before You Leap", Ed. Screen AVG 46: 27 May, 1967.
20. W. F. Johntz, "Innovation and the Concern for the Disadvantaged", C. T. A. J., Vol., 63, Ja., 1967.
21. A. D. Henderson, "Innovations in Education for the Professions", Ed., Rec. Vol., 49 Summer 1968, p. 290-7.
22. Programmed Learning and Computer-based Instruction, Edited by John E. Coulson, New York, Wiley, 1962.
23. Competency-Based Teacher Education; Progress, Problem and Prospects, Edited by Robert Houston and Robert B. Howsam, Science Research Associates, Inc., Chicago, Palo Alto, Toronto, Henley-on-Thames, Sydney, 1972.
24. Thomas S. Nagal, Paul T. Richman, Competency-Based Instruction, A strategy to eliminate failure, Columbus, Ohio, A Bell & Howell Company, 1972.
25. Dr. Gerald D. Bailey, Competency-Based Education, College of Education, Kansas State University, 1973.
26. W. W. Brickman, "Educational Innovation and the Individual", School and Society, Jan., 1967.
27. Brown Lewis Harclerod, AV Instruction, Technology, Media and Methods, New York, McGraw-Hill Book Company, 1973.
28. Rogers, Author K., A Student History of Philosophy, New York, The Macmillan Company, 1928.

29. Open Education, Edited by Ewald B. Nyquist and Gene R. Hawes,
Toronto New York, Bantman Books, Inc., 1972.
30. The Open Classroom Reader, Edited by Charles E. Silberman, Vintage
Books A Division of Random House/New York, 1973.
31. Rupert N. Evans, Kenneth B. Hoyt, Career Education in the Middle/
Junior High School, Salt Lake City, Olympus Pub. Co., C. 1973.

PLANNING AND INNOVATIONS FOR IRAQI SCHOOLS

by

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A MASTER'S ABSTRACT

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ABSTRACT

It is the concern of the highly prepared elite to spend most of their time in cooperating with each other in their various specializations; educational, economical, and social ones in particular for serving people. It is also their task to design programs and teaching methods with flexibility and versatility for meeting almost all possible changes in mode of thinking, way of living, and future needs. The curriculum should lead to the prosperity and happiness of people. Serious intention, good will, bravery, insightfulness, patience, allocating sufficient money, and dependable methods are needed in the field of education which is the richest source for fostering, pushing forward, and flourishing other fields.

This report throws light on the educational situation in Iraq. There is general agreement among educators for the need to change the present methods that are being followed in Iraq to more useful and valuable innovative approaches. This report discusses innovations in American schools and their applicability to the schools of Iraq. Scientific planning is given the priority in this regard. Innovative approaches in teaching such as competency-based education, open classroom, computer-assisted instruction, implementing innovative technological devices like television, educational films, micro-films, diazo films, microfiche, cameras, overhead projector, and xerox machines, and adopting new practices like teacher aides are excellent contributions. These will help citizens know many good things and humanitarian concepts. They will be able to pursue different types of information according to their own

interests. They will encourage citizens to do research which seeks for reality and tries to diffuse it among people for their benefit. Putting people in the habit of research means letting them have the ability to cover affective, cognitive, and psychomotor domains.

By preparing citizens to participate positively in what is going on in other countries, by making them self-confident, and by sowing seeds of cooperation, kindness, modesty, and understanding others, will mean that educators should follow novelties, innovative approaches, and implement the most modern appliances in teaching.