Summary of the Study

A Suggested Program in Logic to Develop Some Life Skills and the Attitude Towards the Subject for Visually Handicapped   Students of the Secondary Stage

Introduction

The requirements of modern life, the change in the realization of education role and the current scientific and technological advance have emphasized the importance of providing individuals with life skills enabling them to adapt to those requirements and achieve their daily needs. Life skills are highly considered because they are one form of change aspired at in education to prepare individuals for living in their local communities as well as the international one.

If life skills have gained a prominence for students and learners in general, it is specifically and highly considered for visually impaired students. Such impairment deprive those students the ability to naturally gain skills during daily encounters. It also stands in the way of their discovery of the world around them. Thus, life skills are considered one of the most prominent aims of special education specialists.

The acquisition of visually impaired students of life skills is a major educational need as their educational programs are mainly concerned with providing them with the ability to communicate with others, in addition to providing for some special skills such as problem solving, decision making and evaluating others' opinions.

Various school subjects have aimed at providing them with an effective educational environment allowing

them the attainment of life skills needed for everyday life. Nevertheless, studies and opinions have clarified that the regularly used logic curriculum introduced to secondary school students has failed to achieve its original objectives or help the students to apply logic rules in daily life. It might be due to the curriculum focus on the principles and bases of formative thinking which lacks the mechanics and procedures needed for daily life situations.

Consequently, there is an urgent need for another logic that helps in meeting the needs of students' daily thinking and enables them to form logical points of view in relation to various daily problems and issues. It might also be helpful when used for evaluating others' points of view. All these needs are met through the principles of non formative thinking which has been proved through studies to be capable of achieving a number of daily life needs such as critical thinking, decision making, logical writing, logical dialogue and debate, analysis of written, heard and seen materials, etc.

The Research Problem

The problem of the research could be specified in the clear shortage of visually impaired second year secondary students in life skills associated with logic study and their negative attitude towards the subject in light of the formally introduced curricula. According to a number of recent studies and research efforts, it was proved that informal logic is capable of helping them to acquire the specified skills and affect their attitude towards the subject. Thus the research problem could be stated in the following question:

- What is the effectiveness of a suggested program in informal logic on the development of visually impaired second year secondary students' life skills and their attitude towards the subjects?

The following sub-questions could be derived:

1. What are the life skills suitable for visually impaired students and related to logic study?

2. What is the outline of a suggested program in informal logic to be introduced to visually-impaired second year secondary students , which aim to develop the students life skills related to logic study and students' positive attitude towards logic study?

3. What is the effectiveness of introducing the suggested program in informal logic on the visually-impaired second year secondary students' for developing the students life skills related to logic study?

4. What is the effectiveness of introducing the suggested program in informal logic on the visually-impaired second year secondary students' for developing the students' positive attitude towards logic study?

5. What is the relation between the development of logic life skills and the development of a positive attitude towards studying logic of the visually-impaired second year secondary students?

The Research Importance

The research might be important as:

1. It provides the curriculum designers with a new content in informal logic to develop visually-impaired second year secondary students' life skills.

2. It draws the attention of specialists and those responsible for the education of visually impaired students in Egypt to the necessity of considering the characteristics and needs of those students when designing curricula or selecting methods of instruction.

3. It draws the attention of secondary stage curricula designers to the importance of including topics related to informal logic in a way that considers the modern and current developments in the field of logic.

4. It might help the visually-impaired second year secondary students to develop a positive attitude towards studying logic.

The Research Aims

The research aims at:

1. Designing a suggested program in informal logic to develop the visually-impaired second year secondary students' life skills and their attitude towards logic studying.

2. Specifying the effectiveness of the program and the scope of its effect in developing the students life skills related to logic study.

3. Specifying the effectiveness of the program and the scope of its effect in developing the students' positive attitude towards logic study.

4. Identifying the relation between the development of life skills and the positive attitudes towards studying logic for the visually-impaired second year secondary students.

The Research Limitations

The research is limited to:

1. The life skills related to logic studying which suitable for the characteristics of visually impaired students.

2. Second year visually impaired students in "El-Noor Schools" in Fayoum, Giza and Cairo.

3. Blind students as one of the types of visually impaired people.

4. The informal logic topics in building the suggested program without dealing with all the other types of logic.

The Research Tools

The research used the following tools:

1. An interview forms that were used to record the responses of the visually impaired third year secondary students.

2. A list of the informal logic topics suggested to be introduced to the visually impaired second year secondary students.

3. A list of the life skills related to logic studying and suitable for the characteristics of visually impaired students.

4. A suggested program in informal logic.

5. A life skills test "situations' test".

6. An attitude towards studying logic measure.

The Research Method

The research used the descriptive method in tackling the theoretical background of the research. It also used the educational experimental method in the implementation of the research experiment. The experimental design included only one group (visually-impaired second year secondary students) studying the suggested program in informal logic that was tested prior to and post the implementation to measure the effectiveness and scope of effect of the suggested program in developing some life skills and their attitude towards studying logic.

The Research Hypotheses

The research examined the following hypotheses :

1. There is a statistically significant difference between the means of scores gained by the study

subjects in the pre and post implementations of the life skills test in favor of the post implementation.

2. There is a statistically significant difference between the means of scores gained by the study subjects in the pre and post implementations of the attitude towards studying logic measure in favor of the post implementation.

3. There is a positive correlation between the development of life skills and positive attitude towards studying logic.

The Research Procedure

To answer the first research question, the following steps were carried out:

1. Reviewing the literature and related studies dealing with the categorization of life skills in general.

2. Reviewing the literature dealing with the categorization of life skills in the field of logic especially the informal logic.

3. Reviewing the literature dealing with the relation between informal logic and some daily life fields.

4. Specifying the characteristics of visually impaired secondary stage students.

5. Specifying the educational needs of visually impaired secondary stage students.

6. Through reviewing the literature and related studies mentioned previously, the researcher specified the life skills related to informal logic and suitable for the visually impaired second year secondary stage students in the following fields:

- Communication with others.

- Arguments evaluation skill.

- Decision making skill.

7. Specifying a list of the sub-skills related to the main skills mentioned earlier.

8. Using logic terminology in naming the life sub-skills such as: starting logical debate, logical decision making, logical reasoning. Etc.

9. Preparing the preliminary list of the suggested visually impaired secondary stage students' life skills to be developed through the program.

10. Judging the list by showing it to jury members to specify the life skills related to logic studying that put into its consideration the characteristics of visually impaired secondary stage students and its implementation possibilities.

11. Modifying the list in light of the jury points of view.

12. Specifying the final format of the list.

To answer the second question of the research, a suggested program in informal logic was designed to develop some life skills and enhance the positive attitude towards studying logic of visually impaired secondary stage students following a number of steps as follows:

- Reviewing the theoretical and practical literature related to informal logic especially those interested in types of life skills.

- A preliminary list of the suggested informal logic topics to be introduced to the visually impaired secondary stage students.

- Showing the list to a number of foreign specialists and experts in the field of informal logic to specify the degree of importance of each topic in developing the life skills related to informal logic studying or to add to the prepared list. Thus, a final list was achieved containing all the important topics.

- Preparing the students' book of the suggested programs by:

- Formulating the general aims of the program.

- Specifying the main units of the program (3 basic units).

- Writing the behavioral objectives of each unit in a way that keeps into consideration the characteristics and educational needs of those students.

- Listing the main and sub topics of each unit.

- Selecting the educational experiences.

- Organizing the educational experiences.

- Identifying the methods and techniques to be used in introducing the program so as to consider the nature and characteristics of visually impaired students and the nature of logic as a school subject.

- Deciding upon the suitable assessment methods related to each unit.

- Designing the students' booklet and re-writing it using Brail method.

- Preparing the teacher's guide including the methods and strategies of teaching the suggested program. It presented the methods to be followed when teaching the programs lessons according to the suggested strategy. It included:

- The introduction.

- General aims of the program.

- Life skills related to informal logic studying.

- The suggested teaching strategy.

- The time plan of the suggested program.

- The program units and its teaching procedures.

Answering the third and fourth questions required the researcher to carry out the following procedure:

1. Preparing the life skills test (situations' test) in light of the final list of life skills.

2.Designing the attitudes towards studying logic measure.

3.Judging the validity of the test and measure by a number of jury members.

4.Carrying out a pilot study to implement the test and measure specified earlier to judge their validity and reliability before their pre implementation.

5.Forming the final version of the life skills test and the attitude towards studying logic measure.

6.Selecting the study sample group namely the visually impaired second year secondary students in El-Noor School for Blind Students (Fayoum), The Ideal Centre of El-Zaytoon Area (Cairo) and El-Noor and El-Amal School for Blind Girls in Heliopolis (Cairo).

7.Implementing the life skills test and attitude measure to the study sample prior to the introduction of the program.

8.Introducing the suggested program in informal logic to the study sample.

9.Implementing the life skills test and attitude measure to the study sample post the introduction of the program.

10.   Recording the results of the test and measure, finding the differences between them, calculating the correlation factor between the marks of the study sample in both the test and measure so as to test the study hypothesis.

11.   Analyzing the study results and specifying the scope of its effect on developing the life skills related to the study of logic and developing the visually impaired secondary stage students' positive attitude towards studying logic.

12.   Discussing the results to derive conclusions.

13.   Recommendations, suggestions and further studies.

Summary

The Research Results

The statistical analysis of the research results showed that:

1. The first hypothesis was verified proving that there is a statistically significant difference between the means of scores gained by the study subjects in the pre and post implementations of the life skills test in favor of the post implementation.

2. The second hypothesis was verified proving that there is a statistically significant difference between the means of scores gained by the study subjects in the pre and post implementations of the attitude towards studying logic measure in favor of the post implementation.

3. The third hypothesis was verified proving that there is a positive correlation between the development of life skills and positive attitude towards studying logic.

4. The suggested program in informal logic had a clear effectiveness and impact on the development of life skills related to logic of visually impaired secondary stage students.

5. The suggested program played an important role in the development of each major life skill such as: communication with others, evaluating others' logic and rationale and decision making.

6. The communication skill is the most affected skill by the suggested program, followed by evaluating others' rationale and logic then decision making.

7. The suggested program in informal logic had a clear effectiveness and impact on the development of a positive attitude towards studying logic of visually impaired secondary stage students.

8. The suggested program in informal logic had a clear effectiveness and impact on the development of all the dimensions of the attitude towards studying logic.

Summary

9. The third dimension concerned with the students' attitude towards the importance of logic and its use in daily life is the highest among those affected by the suggested program. It was followed by the first dimension tackling the students' interest in studying logic, and finally the one related to the logic teacher and its instruction methods was the least affected by the suggested program.

10.   The positive correlation between the development of life skills and positive attitude towards studying logic was also evident for each dimension in isolation.

11.   The third dimension concerned with the importance of logic and its use in daily life is the highest in its correlation to the development of life skills, followed by the first dimension and finally the second one which was proved to be the least correlated.

The Research Recommendations

In light of the research results, the following are recommended :

1. Drawing the attention of logic curriculum designers to the necessity for changing its content and giving more prominence to the topics related to informal logic as it could play an important role in achieving a number of logic aims and functions and help students draw real benefits from it.

2. Drawing the attention of special education programs designers to the need for considering the nature of the disability dealt with when designing their courses, paying extra attention to the logic curriculum that should consider the educational needs of those students in addition to their academic, social, mental, psychological, linguistic and cognitive characteristics.

3. Drawing the attention of teachers working with visually impaired secondary students to select methods

of instruction that cope with their nature first and with the nature of logic as a school subject as well.

4. The activities presented through the logic topics should consider the special nature of those students, i.e. they should consider activities that require the use of vision. For example, the visual T.V. related materials should be changed into audible ones.

5. Drawing the attention of the specialists responsible for the designing of visually impaired secondary students' logic course to the importance of including experiences, activities and knowledge helping in the development of the students' life skills. These skills are largely fundamental as they help the students to overcome the effects of their impairment, in addition to helping them to cope with and effectively communicate with others throughout the daily life situations.

6. Drawing the attention of logic course designers to the preparation of a number of tests and measures or using a number of pre-designed standardized tests to measure the effectiveness of the currently used curriculum in achieving its aims and functions as a school subject or its effectiveness in connecting the student to daily thinking and logic application in daily life situations which is mainly the main purpose of logic studying.

7. Calling the responsible people for visual, audile and read media to use the principles of good dialogue in talk shows and be highly considerate of the principles of accuracy and objectivity in their analyses and writings.

8. Advising the curricula development centre in the Ministry of Education to the necessity of designing a micro curriculum concerned with informal logic to be obligatory introduced to the scientific section at the secondary stage. It should focus on the application of informal logic on daily scientific cases as it might greatly help in the achievement of the secondary stage general aims and help those students to acquire the ability to use

Summary

logical thinking when dealing with daily issues and events. It can be doubted that training students to use sound logic in thinking is a goal aspired to be achieved with all the students no matter what their field of specialization might be.

9. Requesting the Minister of Education and the head of the education committee in the people's council to file a decision that makes logic an obligatory subject at the third year of the secondary education as it is highly important in developing the students' thinking and motivating them to behave in an objective way throughout the daily life events and situations and assisting them in evaluating issues logically.

Suggested Further Research

In light of the results of the research, the following further studies were suggested:

1. Assessing the political speeches and the materials shown through media on the bases on informal logic.

2. A suggested course in informal logic to be introduced to scientific section students.

3. Assessing the traditional curriculum of logic introduced at the secondary stage in light of the functions of logic as a school subject.

4. A suggested vision of logic curriculum at the secondary stage in light of life skills.

5. The traditional curriculum of logic at the secondary stage – a diagnostic study.

6. A suggested unit in informal logic to develop the listening skills of visually impaired secondary students.

7. The effectiveness of using some active learning strategies in logic teaching on the development of communication skills of secondary stage students.

8. A program in informal logic dependant on the educational needs of visually impaired secondary students.

9. The effectiveness of using audible and read materials as complementary activities for the logic

Summary

lessons in developing the students' attitude towards logic studying.

    10.   A suggested vision of developing the logic curriculum at the secondary stage in light of the international directions.