

# ARTICLE THE CONTEXTUAL ANALYSIS OF THE NATURAL SCIENCES LESSON BOOK OF THE SECOND PRIMARY GRADE AND THE COMPARISON OF THE IRANIAN NATIONAL EDUCATIONAL LESSON PLAN PURPOSES

Seyed Heydar Azarkas<sup>1\*</sup>, Ezatolah Nader<sup>2</sup>, Maryam Seif Naraghi<sup>2</sup>

<sup>\*1</sup>Department of Educational Sciences, Arak Branch, Islamic Azad University, Arak, IRAN <sup>2</sup>Ph.D, Department of Educational Sciences, Science and Research Branch, Islamic Azad University, Tehran, IRAN

## ABSTRACT

The lesson plan changes of the natural sciences training are one of the most sophisticated challenges of the countries educational system in all over the world. The main purpose of the present study was to investigate and analyze the natural sciences lesson book of the second primary grade and its comparison with aiming at the educational and learning issues in the Iranian national educational lesson plan trying to represent an active combinative learning-teaching approach in this study. The related study was an applied type of study purposefully and it also was a descriptive type of study regarding to gather the related data. The statistical population of the present study was included the national lesson plan, teacher's manual and the natural sciences book of the second primary grade during 2014-2015 that this was also investigated by William Roomy contextual analysis method. The obtained results from the contextual analysis of the natural sciences book of the second primary grade showed the challenging with text coefficient 0.98, challenging with pictures coefficient 1.25 and challenging with text and book pictures; according to William Roomy, this method had been also represented as an active method but the challenging with text and book pictures; according to William Roomy, this method had been also represented as an active method but the challenging with book questions coefficient had been represented as inactive (2.33 for the second primary grade). Based on the research results, there had been represented to reevaluate designing of all questions trying to challenge all learners with cognitive skills and lesson book questions as well as giving some learning-teaching approaches actively in this regard.

## INTRODUCTION

KEY WORDS national lesson plan, contextual analysis, natural sciences, second primary grade, active combinative approach

Published: 16 October 2016

\*Corresponding Author Email: : azarkasbseyedheydar@g mail.com western scholars' theories regarding to the educational sciences are not negligible for everyone; for the reason, there have been established two approaches of the absolute acceptance (globalization theory) and the lack of absolute acceptance (problem-based localism) in confronting with the issue of applying the global theories generally. However, the most accurate analysis shows that these two related theories have been ignored regarding to its some parts because the first theory does not pay attention to the local realities and the second one make a kind of suspicious for the truths and common realities of the mankind over the mega-time and mega-location levels. In the national lesson plan, the learning fields' purposes are subjected to those purposes that these should determine the educational purposes regarding to every lesson and educational plan due to the related requirements and different circumstances of the learning fields such as coaches, trainers, facilitations, local conditions (national lesson plan, 2012, 19). But there has been little applied the practical approach in order to make the accessibility and operation of these higher purposes. In the field of representing a suitable pattern for the educational and natural sciences fields in the national lesson plan based on the experimental and practical methods, the recognition of the early phases of these educational formations should be also determined but there has been little carried out studies regarding to the educational affairs in Islamic training issues. Teachers' teaching manuals regarding to the natural sciences should represent some approaches that these should also be extracted from the different educational teaching systems because these will make the necessary coordination along with all cultural requirements and situations in Iranian educational system. One of the most sophisticated approaches regarding to the teaching-learning approaches and the representation of the lesson plan as well as the educational context is subjected to the sophisticated application of the modernized technologies regarding to the national lesson plan (national lesson plan, 2012). In our country's educational system, the lesson books are the main reference for the students' learning resource. Hence, it is necessary to design and represent some other related lesson plans in the framework of the different aspects in order to implement the most enriched lesson contexts in this pavement. When these references are not adapted with the lesson plan purposes, the implementation of the related process will be impossible. In other words, there should be required the most enriched context actively in order to reach to the natural sciences educational purposes [11]. [15] believes that the existence of the concentrated educational system along with a program and a one lesson book for all over the country, the unsuitability of the educational conditions such as the crowd of the classes and the lack of the experimental facilitations and testing methods with examination questions make some various problems for our educational system so that the lesson book will be allocated only the one resource for the teacher and student interaction regarding to the educational affairs; the preparation of the learning opportunities can be established only through the implementation of the general and minor educational purposes. Due to the importance and role of the book, the emergent attention towards the lesson contexts regarding to the thinking and nurturing the skill of the thinking should be potentially deepened among all students and the lesson book should be represented along with the problem-solving approach in this regard. Indeed, the lesson book through the teacher conduction towards teaching affairs can provide some opportunities for

The necessity of applying and using the modernized and scientific achievements as well as the new



practicing the problem-solving skills making a great background for all students to learn about the problem-solving issues [3]. Response to the requirement of a suitable educational pattern based on the Iranian educational system is mainly emphasized on the wisdom-based and deductive issues in the educational system and the extraction of the suitable scientific reasons along with the objective thinking should be also nurtured among the primary schools due to the growth of the learners' mentality in this age; due to the new modernized teaching-learning methods based on the recognition and consciousness and learning on the sensual and experimental aspects in the beginning days and then entering into the most accurate investigation discussions and the iteration of the experimentations and conclusion based on the deduction should be also potentially trained all the students; this is one of the most sophisticated issues that should be carefully paid attention in this study. The contextual analysis of the natural sciences lesson book of the second primary grade and its comparison with the learning and educational fields purposes in the Iranian educational system and the application of the modernized teaching methods in the contemporary world should be also allocated accurately in order to implement the suitability of the educational affairs in Iranian educational system.[10] in his study showed that the sciences teachers of the primary grade never pay attention to the mental change and growth of the children; the teaching method of the sciences teachers participated in teaching method courses does not have a significant difference with those ones not participated in this course. Also, the lack of teachers' consciousness from the new teaching methods and the lack of paying attention to nurture the creative mentality and the lack of enough suitability between the context and method are the other results of the related study. [2] in his study stated that more than 50% of teachers have suitable conscious and perception from the discussions and concepts of the natural sciences books using the teaching manuals regarding to the natural sciences but some other teachers have stated that they have got some problems for teaching the discussions and concepts of the natural sciences books in primary schools. Of 97 total teachers in natural sciences filed, about 77% had shown unsuitable conceptualization (very easy or very hard) and only 33% have considered the context of these books unsuitable. About 40% believed that the transformation of some contexts of the books has been taken place and about 50% have considered and evaluated the terms and words of the natural sciences books as hard. In the research of [2], it is specified that most teachers have considered the discussions and concepts of the natural sciences books as hard and they stated that the lack of contexts' adaptation and the purposes with the mental ability of students can cause to the lack of understanding the concepts and there is no paid attention towards the balance between the elements and skills, attitudes and knowledge. Also, the lack of some questions or other related homework will make students to confront with intriguing situations. [1] in his study titling "the investigation of the achieved programs adaptation in educational program of the primary grade" concluded that teachers are not still get familiar with the philosophical terms and concepts. The role and importance of the new teaching method in students' educational progression makes the necessity of applying these new methods in the natural sciences training issues; but due to the obtained results of some studies, the lack of using the active methods regarding to the sciences teaching manuals, the lack of suitability between the context and method, the lack of teachers' consciousness from new teaching methods and the application of the educational facilitations, discovery methods and participation in experimentations and the suggested methods should be potentially allocated in all educational plans. There have been established some other studies that these have also analyzed the lesson book. [13] in a study titling "the contextual analysis of the natural sciences books with William Roomy method" concluded that the pictures and diagrams of the natural sciences books in fifth primary grade do not challenge students sufficiently. [4] in a study titling "the comparative analysis of the lesson books and teacher's manual of the primary grade in Iran and the USA based on Bloom cognitive categorization, thinking actions dimension in Gilford intelligence structure and Merrill educational purposes categorization" concluded that although the lesson books purposes are 14% higher in Iran in compare to the USA but in the USA lesson books there have been established many various opportunities for making the practical-based issues for all learners and these have been also paid attention to nurture and grow the divergent thinking and other various situations. As an instance, the results of Teams in 2003 showed that the Iranian students in a collection of 286 functional test question are established in the superior level regarding to the memorization but they are also established in the lowest level regarding to these skills such as making theory, analyzing data, problem solving and applying the tool and scientific methods or research all about the environment and so forth. The investigation of the sciences training processes of the different countries shows that most countries such as the USA, the UK and Australia have carried out the most fundamental changes regarding to the educational policies; they also try to transform all paper-based natural sciences training into the active methods preventing the teacher-based educational affairs; they prefer to apply the function tests and measurements achieved based on Profile-Document case [7]. The lesson plan of the natural sciences is achieved very weak due to the lack of achieving the practical and experimental activities. Anyway, in the present the selection of the context from the produced mass knowledge is one of the most important challenges of the present era regarding to the countries' educational system. In the new lesson plan of countries, the attention towards the history of the science and its application for training the sciences concepts in the modernized lesson plans should be carefully achieved efficiently. Therefore, the main aim of the present study is to investigate how the lesson book of the natural sciences of the second primary grade based on William Roomy contextual analysis is written as the active method; how the pictures of the natural sciences lesson book can challenge students based on William Roomy method and how the manual and context of the related book has got suitability with educational aims in the national lesson plan.

## MATERIALS AND METHODS



The related study is an applied type of study purposefully and it also is a descriptive type of study regarding to gather the related data. The descriptive method of the context analysis and the related questions are also applied in order to response to the national lesson plan document regarding to the educational field of the experimental sciences; then William Roomy method is also applied as a supplementary case in the rest of the study. In the descriptive method, the researcher tries to describe the conditions without any interventions. The statistical population of the study includes all documents, papers of the theoretical basics in the lesson plan, teachers' manual and the lesson book of the natural sciences of the second primary grade as well as all experts viewpoints in this regard. In this study, due to the dimensions of the study, the sample has been taken up from the statistical population as an available case and its volume includes all available resources that have been comprehensively applied and there is no taken up any choice in this pavement. Data gathering method is established based on the library type of data gathering including taking notes from the domestic and foreign resources as well as the experts' viewpoints regarding to the scientific field. The archive of the educational ministry and the lesson [8] books are also applied in order to collect the related information and data in this study; the documents and papers of the expert groups are also applied in order to analyze and investigate the national lesson plan. In this study, the main criterion of analyzing the related data is subjected to the wisdom and deduction; the descriptive statistic (grouping and categorizing the viewpoints and the common comments and distinctions) has been also applied in this study in order to analyze the context; the descriptive statistic includes the table, diagram, percent and the mean [9].

### RESULTS

Investigation of the lesson book context of the second primary grade with William Roomy contextual analysis

In the context analysis, the context will be appeared as systematic and gualitative-based; this method can be considered as the main method of transforming the qualitative data into the quantitative data [6]. The statistical population includes the natural sciences book of the second primary grade during 2014-2015 educational years; this includes 92 pages but the introduction has been eliminated. Due to the restriction of the population volume, there is no required of sampling and all contexts of the book as the main population have been investigated in this study. As simple accidental sampling method, 10 pages for the text analysis, 10 pictures for pictures and 10 questions for analyzing the book questions have been allocated; for analyzing the text elements, the question and pictures of the book have been also evaluated. As a result, the analysis includes those processes that some of them have been subjected to the text, some other to questions and active pictures and others related to the text, questions and inactive pictures; and the main purpose of the method is that we should find out that how the mentioned processes can attract the learner towards the text, questions and pictures. For the reason, it should be get assisted of the analysis unit as the main regular basis of the results. In other words, the most important foundation of the text analysis is subjected to the analysis unit and this unit divides the context into some separate elements in one hand but on the other hand it is considered as the regular basis of the results analysis (the same). The data and information include the suitable descriptive methods as following: distribution, percent, measurement of challenging coefficient in every section of the book, questions and pictures and the relative coefficient measurement in every section and then the measurement of challenging coefficient of students with total text, total pictures and total questions.

| Category<br>Page                         | A     | В     | С     | D    | Е    | F     | G     | Н    | Sum | Percent | Challenging coefficient |
|--|-------|-------|-------|------|------|-------|-------|------|-----|---------|-------------------------|
| 12                                       | 5     | 2     | 2     | -    | 1    | 4     | 6     | -    | 20  | 10/30   | 1/22                    |
| 21                                       | 3     | 4     | 1     | 1    | -    | 3     | 5     | 1    | 18  | 9/28    | 1                       |
| 30                                       | 3     | 4     | -     | -    | 1    | 5     | 4     | 2    | 19  | 9/79    | 1/71                    |
| 39                                       | 5     | 2     | 4     | -    | 1    | 3     | 3     | 2    | 20  | 10/30   | 0/81                    |
| 48                                       | 3     | 5     | 1     | -    | 1    | 3     | 2     | 1    | 16  | 8/25    | 0/78                    |
| 57                                       | 2     | 4     | 3     | 1    | 1    | 4     | 4     | 3    | 22  | 11/34   | 1/2                     |
| 66                                       | 2     | 2     | 3     | -    | 2    | 5     | 4     | 3    | 21  | 10/82   | 2                       |
| 75                                       | 3     | 3     | 3     | 1    | 1    | 2     | 5     | 1    | 19  | 9/79    | 0/9                     |
| 84                                       | 5     | 2     | 4     | 1    | 2    | 3     | 1     | -    | 18  | 9/28    | 0/5                     |
| 93                                       | 6     | 4     | 3     | 1    | 3    | 1     | 3     | -    | 21  | 10/82   | 0/5                     |
| Sum                                      | 37    | 32    | 24    | 5    | 13   | 33    | 37    | 13   | 194 | 100     | 0/98                    |
| Percent                                  | 19.07 | 16.49 | 12.37 | 2.57 | 6.70 | 17.01 | 19.07 | 6.70 | 100 | -       | -                       |
| 12+22+27+12 $27+22+24+5 = 06.09 = 0.000$ |       |       |       |      |      |       |       |      |     |         |                         |

Table 1: Challenging coefficient for total text regarding to natural sciences book of second primary grade

+33+37+13 .37+32+24+5 = 96.98 = 98%

This is the challenging coefficient of students regarding to the total text in natural sciences book of second primary grade

Because the challenging coefficient for text is 98% and this number is established between 0.4 and 1.5, for the reason, the text context of the book is represented as active forcing students to make their activity and homework.



 Table 2: Challenging coefficient for picture of the natural sciences book in second

 primary school

| Category<br>Page | A  | В  | Sum | Challenging coefficient in Text |
|------------------|----|----|-----|---------------------------------|
| 12               |    | *  | 1   | 8                               |
| 21               |    | *  | 1   | ∞                               |
| 30               | *  |    | 1   | 0                               |
| 39               | *  |    | 1   | 0                               |
| 48               |    | *  | 1   | ø                               |
| 57               |    | *  | 1   | ø                               |
| 66               |    | *  | 1   | ø                               |
| 75               | *  |    | 1   | 0                               |
| 85               |    |    | -   | -                               |
| 93               | *  |    | 1   | 0                               |
| Sum              | 4  | 5  | 9   | 1.25                            |
| Percent          | 40 | 50 | 100 | -                               |

Challenging coefficient of student with picture is 5.4=1.25

; based on this challenging coefficient with picture is obtained 1.25 that it has been also established between 0.4-1.5 domain according to William Roomy method. As a result, the book with challenging coefficient 1.25 is adjusted as an active case.

 Table 3: Challenging coefficient of questions in natural sciences book of the second primary grade

| Category<br>Page | А | В  | С  | D  | Sum | Challenging<br>coefficient |
|------------------|---|----|----|----|-----|----------------------------|
| 12               |   |    |    |    | 1   | 0                          |
| 21               |   | *  | *  |    | 1   | ∞                          |
| 30               |   | *  | *  |    | 1   | ∞                          |
| 39               |   | *  |    |    | 1   | ∞                          |
| 48               |   |    | *  | *  | 1   | ∞                          |
| 57               |   |    |    |    | 1   | 0                          |
| 66               |   |    | *  | *  | 1   | ∞                          |
| 75               |   | *  | *  |    | 1   | ∞                          |
| 84               |   |    |    |    | 1   | 0                          |
| 93               |   | *  | *  |    | 1   | ∞                          |
| Sum              | 0 | 5  | 6  | 2  | 10  | 2/33                       |
| Percent          | 0 | 50 | 60 | 20 | 100 | -                          |

The challenging coefficient of students with question is 2+5.0+3=7.3=2.33

The obtained challenging coefficient is 2.33 and this is higher than 1.5 representing that the book questions are not adjusted as active case.

The sciences training purposes in manual and lesson book have been represented as a pyramid aiming at the implementation of the natural sciences learning and educational field in national lesson plan. One of the most important purposes of this field is subjected to optimize and boost the attitudes and scientific behavior of all learners. This behavior provides the most intelligent interaction in confronting with the various environmental phenomena [8]. This aim has been considered in all teaching manual purposes, too. The recovery of the teaching methods and the application of the scientific methods in educational programs can also optimize and increase the students' sensations awakening the spirit of the curiosity among all students potentially; also, these approaches can make the greatest background for forming creative thinking among all learners and finally this will also boost the scientific behavior of students making a sustainable self training and continuous education for these students. [5] says in this relation: the Iranian educational and lesson planning system in regardless with having longest history is mainly established based on traditional patterns and subject-based case emphasizing mainly on types of knowledge-based issues and transformation of scientific realities and facts towards the students. The irrelevance of the lesson plan context of the primary, guidance and high school grades with together, the lack of enough arrangement with the social conditions and features and the difficulty of understanding the concepts of these lessons for students are the main fundamental problems that have been entered into the lesson planning field.

## DISCUSSION AND CONCLUSION

According to [Table 1], the results of the book text analysis showed that in the natural sciences book the challenging index of students with book text is 0.98. this number is established between 0.4-1.5 representing that the book text is represented as active. The challenging coefficient with book text is 0.98 as an active case according to William Roomy method. This is considered as little higher than moderate level and when this number is close to 1.5, the degree of the learners' challenging with text will be also increased. It is better to recover some suitable statements in order to increase the degree of students' challenging degree with book and related context because this will also increase the temperament of



curiosity among learners; it also is better to allocate some intriguing and creative motivational situations for students to raise the active methods in this regard.

The obtained results of the analysis regarding to the book pictures based on [Table 2] showed that the challenging coefficient of students with pictures is 1.25 that this degree is also established between 0.4 to 1.5 representing that the pictures of the book have been represented as active challenging the learner according to William Roomy theory; however, the obtained coefficient is going towards up and as a result the book pictures have been designed as active case in this regard.

The results of the present study regarding to the analysis of the book pictures based on William Roomy formula specified that due to the designing and allocation of some pictures into the book in processes b (5 cases of pictures invite students to achieve their tasks), these have suitable context regarding to the natural sciences book pictures. Since in the primary grade the picture language is better than written language, the learner can make a better connection with lesson book making him or her to read the text and concepts in this pavement; regarding to the representation of the book, it should be struggled to use the most attractive pictures because one of the best ways for attracting children towards the lesson issues is subjected to the usage of pictures.

The results of Sadaghat (1996) regarding to the analysis of the first, second and third natural sciences book according to William Roomy method do not have adaptation with the picture because of the inactiveness of these pictures. For making enough confidence of the results accuracy, it is necessary to carry out some other studies in future based on William Roomy technique. The obtained results of the analysis regarding to the questions in [Table 3], it is shown that the challenging coefficient of learner with questions is 2.33 that has been established based on William Roomy method higher than the determined degree (0.4-1.5). According to William Roomy, the questions of the book have been represented as inactive. These results are adaptive with the results of Sadaghat [12]. The results showed that the questions of the book have been represented as inactive due to the challenge of learner with the subjects and these subjects are beyond of the learners' understanding and this is one of the main reasons for students' reluctance for reading and studying their tasks. For the reason, all repetitive questions should be eliminated from the books in order to prevent the students' reluctance in this regard. Based on the carried out studies and the results of the study, it seems that the purposes being established for raising the students and learners' temperament and creative issues in national lesson plan have been little paid attention.

Hence, it can be concluded that the authors of the books regarding to the second primary school for the natural sciences book should pay attention to the inactiveness of the lesson books; this has been roughly proofed in [Table 3]; in this [Table 3], it also is little paid attention to the discovery and creative spirit of students. The analysis and results are different with other studies background; for instance, the results of [9] are not adaptive with the questions of the book. Based on the obtained results, it should be also mentioned that when designing the context of the lesson program, the learners should be also challenged with the context so that the former experiences have to make learners to get interested in these issues conducting them to make their analysis for the subjects. In this case, these learners will be also tended to nurture and grow their wisdom and thinking issues. In contrast, when all information and data are given to learners along with new knowledge, they will tend to memorize these new things efficiently and when an opportunity is not provided for them, the subjects will be established temporarily into the mind. In this mood, not only the learned issues of the learner are not assisted him but also the learner will not be able to distinguish the best situation because the new materials will not be allocated in future learning affairs as well and this comes true when the learner is getting evolved into the active learning process because he or she will be able to combine all learned issues together reaching to the semantic construction meaningfully. The existence of suggestions in studies regarding to design subjects for growing the skills, the existence of the questions and activities making students to tend to get allocated into intriguing situations and motivational creation, the existence of the questions with pictures or activities for finding a solution and applying the discovery phases, research and problem-solving, criticism thinking, divergent thinking and processing information represent that there is an emergent need for these kinds of subjects in the primary school.

#### Training sciences with active combinative learning-teaching approach

Designing and representing a model for navigating the active combinative teaching-learning approach coming from the obtained results of the present study can be implemented as an approach for training sciences going towards the increase of the national lesson plan issues. The main aim of the active combinative approach is subjected to the approach that the learner can participate and intervene into the process of learning-teaching. Hence, when the teaching process is designed and organized in a suitable way according to all learners' conditions, it can be stated that the active combinative teaching method has been applied in this pavement. Thus, it can be claimed that this approach is to apply the pros and cons of the different approaches together because this will recover the application of other methods. The active combinative teaching-learning approach has got its arrangement with the necessity of paying attention to training the learning path and the consciousness acquisition method. The active combinative approach is coming along with giving the necessary freedom to all students in order to achieve the related tasks (out of class activities). This approach has paid highly attention to the participative, cooperative, co-thinking and learning through cooperation. The thinking infrastructure of the active combinative approach is subjected



to the structuralism. Hence, it can be stated that the active combinative approach is roughly emphasized on the participation of students in the process of teaching-learning. In the structuralism theory, the scientific investigation of the mental events such as acquisition, processing, saving and recovery of information is carried out potentially. Hence, the main emphasize of the related theory is subjected to the learning cognition in the learner's mental structure that not only takes the former knowledge of the learner but also it takes some approaches that these may be applied for the recent influence of the learner. By applying the active combinative approach, it can recover many various activities and educational purposes. For instance, the application of the group research methods, discovery-based training, representation and simulation of the active combinative approach in relation to the educational issues are very efficient for the educational affairs; but this does not mean that these methods do not have any questions and responses. Therefore, achieving activities through students and the construction of some opportunities for learners can assist students to get fertilized for educational issues. Indeed, the active combinative learning appears when the experiences and knowledge of students will be emerged as new cases because they will be able to reach to the new learning opportunities efficiently. The lesson plan of the natural sciences should be designed so that all individuals have to reach to their responsibility and decision-making programs effectively. The biological understanding with participation actively in objective and tangible processes cannot be taken place possibly. These processes in natural sciences include making discussion, working with materials and equipments, deduction and analysis and production of the knowledge. Providing the necessary facilitations and basic conditions is very essential for reaching to the most enriched educational and constructive environment in this field. One of the most essential necessities of this environment is subjected to the representation of new teaching methods in order to raise the discovery and creative spirit among all learners.

## **RESEARCH SUGGESTIONS**

The representation of the national document of the sciences education plan including the purposes, content, teaching methods and testing methods of the sciences education should be evolved into the national lesson plan regarding to the educational and learning purposes of the natural sciences. The comparative investigation of the lesson plan elements (purposes, content, teaching and testing methods) should be advanced in the sciences training affairs of progressive countries in order to optimize the technology section of the education in these related countries efficiently. According to the obtained results of [Table 3] and inactiveness of the questions in sixth primary school natural sciences book and the weakness of the cognitive elements and the experimentation design of learners in moderate level for reaching to the responses in relation to the book content, the authors of the book and lesson planners should be very careful in designing the questions and training the cognitive skills because the accurate design and planning will lead to grow the creation process in all contents and purposes of the educational affairs. By representing the history of the science and the scientific activity approach the practical pattern for the discovery of the students will be increased because these scientists are the main pattern of the students in educational activities efficiently. In the end, it is suggested all researchers to evaluate and investigate the content of other books in primary grade in order to reach and access to the national lesson plan purposes.

#### CONFLICT OF INTEREST

There is no conflict of interest.

#### ACKNOWLEDGEMENTS None

FINANCIAL DISCLOSURE None

#### REFERENCES

- [1] Ahmadi Gholamali. [2001] the investigation of the adaptation degree between three plans of intentional, implemented and acquisitive approaches in the new educational plan regarding to primary course, Tehran, research center of education
- [2] Dadestan Parirokh. [1997] the investigation of themental ability and conceptualization understanding of primary school students to determine the educational standards, Tehran, research and educational planning organization
- [3] Fathi Ejarghah Koroush. [1998] the basics of lesson planning, Tehran, Iran Zamin Publication
- [4] Ghaderi Mostafa. [2000] the comparative analysis of the lesson books and teacher's manual of Iran and USA based on Bloom cognitive field, thinking actions dimension in Gilford intelligence structure and Merrill categorization, a thesis for MA, faculty of teacher training
- [5] Kiamanesh Alireza. [1998] the results of the third international study of the mathematics and sciences, the national center of third international investigation of

mathematics and sciences, no: 21, Tehran, faculty of education  $% \left( {\left[ {{{\rm{Tehran}}} \right]_{\rm{Tehran}}} \right)$ 

- [6] Maaroufi Yahya, Yousefzade Mohammadreza. [2009] the contextual analysis in humanistic sciences [practical manual of lesson books analysis], Hamadan, Sepehr Danesh Publication
- [7] Mehrmohammadi Mahmoud [2008]: the philosophy of the contemporary science, training natural sciences and ability of aestheticism, the collection of the first seminar of the primary school natural sciences articles, Isfahan, the general office of the education in Isfahan
- [8] Ministry of education. [2012] the national lesson plan, Tehran, research and educational planning organization
- [9] Naderi Ezzatollah and Seif Naraghi Maryam [2015] the research methods and its testing in humanistic sciences, 11<sup>th</sup> printing, Tehran, Arasbaran Publication
- [10] Parvizian Mohammad Ali. [2005] the investigation of the discovery training in natural sciences lesson of third to fifth primary school grades of Central Province of Iran, Tehran,



research institution of lesson planning and educational innovations

- [11] Safavi Amanallah [1996]: basics of training sciences, Tehran, seasonal magazine of education 5, p: 80
- [12] Sedaghat Saeed [1996]: testing the representation method of the books contexts of 1<sup>st</sup> and 2<sup>nd</sup> natural sciences grades, a thesis for MS, faculty of teacher training
- [13] Shahmohammadi Nayereh. [2002] the contextual analysis of the natural sciences books of 4<sup>th</sup> and 5<sup>th</sup> primary grades using William Roomy method and teachers' viewpoints, a thesis for MA, Islamic Azad University of Roudhen
- [14] The planning and writing office of lesson books. [2012] the lesson book of natural sciences of second primary school grade, Tehran, research institution and educational planning
- [15] Yarmohammadian Mohammad Hussein. [2000] the basics of lesson planning, basics of philosophy, psychology and sociology, Tehran, printing and publication institution of Yadvareh Ketab