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Designing and validating the optimal model of the curriculum in the field of ecological literacy education in the elementary school of Iran

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Extended Abstract

Introduction:

According to the importance of ecological literacy in life and the main role of education in teaching ecological literacy, planning integrated model of energy literacy can help develop and grow students' knowledge, attitudes, skills and abilities.

Purpose:

This research was conducted with the aim of designing and validating the desired model of the intertwined curriculum of ecological literacy education in the elementary school of Iran.

Methodology:

The purpose, research, application, and method of data collection were descriptive-analytical-adaptive. The statistical population of the study includes four books on social studies, science, heavenly and Persian gifts of the fourth, fifth and sixth grades in the academic year 2019-2020, eight leading countries in the field of ecology (Costa Rica, Canada, Sweden, Norway, France, Austria, Colombia, Finland) and 15 curriculum specialists, as well as ecologists and experts in the field of

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ecology, the sampling method in all three sections was targeted. Research tools, checklist according to Marsenowski's and Rhearing's theory in three main areas of ecological knowledge, ecological attitude, ecological skill (behavior) and 46 sub-fields with a coefficient of 0.693, George Brady's four-step pattern (description, interpretation), comparison and proximity. To analyze the data, multiple tests, percentages, graphs and single-sample t were used using statistical software of SPSS.

Result:

The integrated curriculum model of ecological literacy was planned on the basis of four components of Tyler's curriculum. The main elements in ideal model include goal (preservation of biodiversity, etc.) content (combination of theoretical and practical ecological education, etc.), learning activities (research-oriented tasks as a group, etc.) and evaluation (test of naturalistic intelligence, etc.). According to George Brady's model, there are 23 features in the "goal" element, 18 features in the "content and organization style" element, 21 features in the "learning activities" element, and 10 features in the "evaluation" element to formulate the desired pattern of ecological literacy education. The validation.

Discussion:

Considering the research findings and relying on the educational documents of education and the existence of environmental crisis, it is suggested to review the type of curriculum approaches and the level of attention to ecological components. Since attention to educational innovations, interdisciplinary perspective, ecological curriculum has a special place and is a key part of ecological education, this model can be considered a new step in the evolution of curriculum studies.

Keywords: intertwined curriculum, ecological literacy, elementary school, Iran.

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An Optimized Pattern of Health Education Curriculum and in Primary School Based on the Assumptions of Health System

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Extended Abstract

Introduction:

Health education and health promotion is considered as an important resource in economic, social and personal development; therefore, promoting this field is one of the important tasks of governments and all human beings. And in order to achieve health, they need education.

Purpose:

The purpose of this study is to design and validate the optimal model of health education curriculum and health promotion in primary school in Iran, since trying to flourish the capabilities of students' health education is realized as one of the functions of education. For this purpose, three basic questions were examined: "What is the status of the current curriculum of health education and health promotion in primary school? What are the characteristics and characteristics of the optimal model of health education and health promotion curriculum in terms of logic, goals, content, learning activities, teacher role, materials and resources, grouping of students, place, time and evaluation in primary school? What is the validity of the optimal model of health education and health promotion curriculum in primary school?"

Methodology:

To combine the mentioned questions, a combined method (quantitative and qualitative) was used, so that to examine the current situation in this research, the content analysis method "Shannon entropy", which is employed to process data in the content analysis with a new perspective and quantitatively and qualitatively Raises,

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was used. Also, using upstream documents and semi-structured interviews with experts, philosophical foundations, psychology, curriculum, sociology and experiences of other countries, the model was designed based on the ten Acker elements for the first and second elementary school and in order to validate the proposed model from the opinions of education and training specialists in health and health promotion were used, which confirmed a high percentage of the statistical sample of the mentioned model.

Result:

The results show that there is a need to plan, train and promote subjects such as sexual and physical health, health characteristics of healthy nutrition, environmental health, family health, mental health, prevention of violence, family health, prevention of high-risk behaviors and diseases, the role of exercise and fitness, environmental safety health, how to deal with disabilities, public health of schools, life skills, teaching healthy behaviors in schools as a lifestyle, the impact of social networks on students' familiarity nutritional patterns, life skills training to promote health in the field of health education and elementary health promotion in the textbooks.

Discussion:

One of the most powerful tools to reduce and stop irresponsible human behaviors towards health and increase health awareness is teaching health issues at the primary school level, and since education is the most important resource in any country, textbooks are the most effective at this age. They will have an impact on learning and creating environmental behavior in children because the child through regular mental criteria, formal education and textbook content to be aware of the social environment, the environment and health damage and health and communication with it. Therefore, schools have a vital role to play in this regard and by increasing the health literacy of students in childhood, provide a basis for them to take basic steps to promote health.

Keywords:

philosophy for children, community inquiry, spiritual intelligence, elementary, fifth grade, textbooks

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A Conceptual Model for the Integrated STEM Curriculum (Science, Technology, Engineering, Mathematics) in Primary Schools of Iran

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Extended Abstract

Introduction:

In recent years, the importance of providing students with a strong education in Science, Technology, Engineering and Mathematics (STEM) has been stressed. Qualified STEM professionals are needed to remain economically competitive in the global market and to fill contemporary demands. Moreover, all citizens, even non-STEM professionals, should have the skills and competences necessary to deal with the challenges of our information-based and highly technological world. A promising approach in this regard, is the use of an integrated STEM curriculum, which provides opportunities for ‘more relevant, less fragmented, and more stimulating experiences for learners’ (Furner and Kumar, 2007). Real-world problems are not fragmented in isolated disciplines as they are taught in schools and to solve these problems students need skills that cut across the disciplines. Studies in a broad range of disciplines have shown that students involved in an integrated curriculum performs as well or even better than their peers in traditional instruction with separate disciplines (Czerniak et al., 1999; Hinde, 2005). Moreover, the use of an integrated curriculum has been found to improve students’ non-cognitive learning outcomes, such as interest in STEM and motivation

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towards STEM learning, which in turn could lead to increasing numbers of STEM graduates (National Academy of Engineering and National Research Council, 2014).

Purpose:

This study was conducted to design a conceptual model of the integrated STEM curriculum in the elementary school of Iran.

Method:

This study is a qualitative research. The inferential descriptive method has been used to discover the logic of the integrated curriculum based on its theoretical foundations. In the stage of discovering the components of the Model, Deductive Content Analysis has been used in order to discover of the components of Acker curriculum. The research population includes 80 scientific research from valid databases, as well as, all the upstream documents of the Iranian education system. The purposeful sample includes 46 articles and doctoral theses related to the research objectives, as well as, the Vision Document of the Islamic Republic of Iran in the Horizon of 1404 AH, the Document of the Fundamental Transformation of Iran's Education, and the Goals and Guidelines of Science and Mathematics Curricula.

Results:

The focal points of this approach are based on the content analysis of research resources, including the need for jobs to communicate between disciplines, scientific research methods, engineering design, attracting learning for children, project-based learning, group research and evaluations are in different ways. Based on the design logic of the program, the characteristics of each element of the Acker curriculum were determined and finally, a schematic pattern of the spider web of the Acker curriculum was presented.

Discussion:

In this study, integrated STEM curriculum based on Dugger (2010) means Each type of weighted, cross-disciplinary and integrated approaches; however, the researcher's choice to design a conceptual model for elementary schools is the integrated curriculum. The main purpose of teaching in Elementary schools should be to motivate

students to be interested in research, science, and group collaboration in an integrated context, and to learn the experimental sciences through practice. In this regard, four disciplines may not be participated equally in all lesson plans, but the efforts of designers and teachers should be combined. The researchers found that what is more important than choosing an integrated approach is to provide the conditions and components of educational materials, qualified teachers, time and place. As Ejiwale (2013) and Sanders (2009) believe that one of the major challenges in implementing STEM curriculum is the teacher's content knowledge of the four disciplines. Primary Schools' teachers, in particular, who are more generally educated, may feel a great weakness in content knowledge when involved in the implementation of STEM programs (Ring 2017). Therefore, there is always a need for supportive training of Elementary schools' prospective and in service teachers.

Keywords:

Curriculum Model Design, Integrated STEM Curriculum, Qualitative Content Analysis, Primary Schools

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Comparison of Normal and Intelligent Schools Regarding Flanders Verbal Communication Model

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Extended Abstract

Introduction:

The term informational technology refers to the forms of technology which are used to deliver, process, store, display, share and change the information, through electronic tools. Today, informational and communicational technology has affected whole life areas including educational fields. One of the consequences of the increasing influence of the technology in educational fields is developing and expanding of smart schools. Smart schools are schools which include applying the informational and communicational new technologies. Smart schools are different from conventional schools in many ways such as types of relationships and teaching in smart schools and decreasing the traditional and monologue-based speech of teachers and increasing the two directional and learner centered interactions. One of the most important verbal communications' models is Flanders verbal model. This model includes a list which is completely coincident with classrooms and the verbal interactions there; because it includes both direct teaching and indirect teaching components. Researchers can examine and compare different classrooms through providing a checklist and carefully observing the events, monologues and dialogues.

Purpose:

The study aims to compare the conventional and smart schools according to this model. The research method has been causal-comparative based on this purpose.

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Methodology:

The statistical population includes all elementary conventional and smart schools of Urmia city. The statistical sample consisted of 20 schools (10 conventional and 10 smart schools) which had similar economic, cultural and regional traits. The criteria for selecting the smart schools were their privileges of the maximum facilities and standards based on the smart schools' road map. The research required data were collected through the observational checklist according to the Flanders interactive analysis categories' table in order to record the ten codes of teaching procedure based on Flanders theory. According to this table, whole communicative process of the classroom is recorded based on codes from one to ten and written in the checklist, which means there are 400 codes recorded for each observation session; then the comparison is performed through these codes.

Results:

The results indicated that the conventional schools have higher direct speech, while in indirect speech the smart schools are higher. In the limited speech, students of smart schools are significantly higher than smart schools' students; although in initiative speech, students of smart schools are in a better situation. Also, silence component is significantly lower in smart schools compared to conventional ones. It is considered that in all favorable components of Flanders verbal communicative pattern, smart schools are in better conditions rather than conventional schools.

Discussion:

Regarding the findings, it is recommended to perform the appropriate actions and strategies in order to equip more schools with informational and communicational technologies and training teachers to apply them in an optimum way.

Keywords: Flanders verbal communication model, direct speech, indirect speech, student dialogue, silence and ambiguity

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Content analysis of elementary fifth grade textbooks based on the components of philosophy for children curriculum by spiritual intelligence

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Extended Abstract

Introduction:

Today, in the face of various intellectual and spiritual events, experiences and challenges in educational systems, teaching p4c is an application in which the child learns how to think and his curiosity in this direction is intertwined with exploration and reasoning. It leads to questioning, creative thinking, critical thinking, caring thinking, the growth of moral values, and self-correction and paying attention to spiritual intelligence can also help them solve problems and issues related to the meaning of life. In this regard, p4c curriculum by spiritual intelligence can be a good platform for studying culture, values, in addition to cultivating reason. And be spiritual and help the child in the face of beliefs and values to think about what and why they are and to act with a thoughtful and purposeful vision to solve their problems.

Purpose:

The present article seeks to analyze the content of fifth grade elementary textbooks based on the components of p4c curriculum by spiritual intelligence

Methodology:

The method of descriptive research includes documentary analysis and content analysis and its approach is applied and the sources analyzed

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were to identify the dimensions and components, the text of library documents and all fifth grade elementary books. Measurement tools, filing form as well as content analysis checklist were made by the researcher and the validity of the research was confirmed by experts and philosophers for children and curriculum planning and its reliability was expressed by calculating Cronbach's alpha 93%. The extracted components consisted of 4 main components and 49 sub-components. In content analysis, their entropy method was used.

Results:

The results showed that the component of individual consequences of philosophical thinking with a coefficient of importance of 0.564 has the highest and the component of what is philosophy with a coefficient of significance of 0.027 has the least amount of attention.

Discussion:

Overall, the research findings indicated that the level of attention to each of the components was different, some components were considered and some were neglected, generally, the level of attention to them was unbalanced and uncoordinated, which indicates that the book is unfortunately The fifth grade elementary school curriculum is distanced in terms of attention to the main components of this program, which is questioning and community research, and then individuality is highlighted in them. Surprise, curiosity, discovery, and inquiry are an integral part of teaching p4c, and it is in the Community inquiry that collective learning takes place.

Keywords:

Philosophy for Children, Community inquiry, Spiritual Intelligence, Elementary Fifth Grade Textbooks

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Examining the Persian Textbooks (Reading) from the first to the third grade of elementary school, based on the Theory of Semantic Networks

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Extended Abstract

Introduction:

Learning the words of a language and more importantly, understanding the relationships among words, are the principles of successful learning of a language. Semantic network theory is one of the theories and approaches that can help teaching words to students and making them learn. The existence of semantic networks in a text represents the coherence of a text and consequently results in a better reading and learning of a text.

Purpose:

The purpose of this research is the analysis of semantic networks, concrete and abstract fields and sense relations in Persian textbooks of first to third grade of elementary school.

Methodology:

The present study is a descriptive-analytic research of qualitative type. The statistical population of this research was all Persian textbooks (reading) of elementary school. The studied examples were Persian books of the first three years of this period. By examining them and analyzing them, their semantic networks are drawn and also the relations of words are examined in terms of concreteness and abstraction.

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Results:

Based on the results, the first grade Persian textbook can be divided into five semantic networks: food, animals, religion, education, nature and place. The contents of the second and third grade Persian textbooks can be summarized in seven chapters: 1- Institutions (library, mosque), 2- Individual and social ethics (good things, good friends, sacrifices, deed, heavenly, absentee), 3- National and patriotic (Iran, flag, Nowruz, frontiersmen, language, martyrs), 4- Theology (prayers, pilgrimage), 5- Art and Literature (artist, Ferdowsi, Saa,di, the fruit of art, book reading, language), 6- Nature (sea, forest, sky), 7- Hygiene (microbes, ear, cleanliness, sound pollution). The analysis of concrete and abstract semantic fields, shows that the concrete fields reduced from 26 items in the first grade textbook to 13 items in the second grade textbook respectively and this shows the authors attention to the age requirements of students. Sense relations among words are: collocation, synonymy, opposition, hyponymy, meronymy and member collection. Among these relations, collocation had the most use and meronymy had the least use.

Conclusion:

If the words in our lexicon are connected through semantic networks, the process of learning words will be facilitated (Aitchison,1987). Children learn nouns based on hyponymy (Belacchi and Benelli, 2005), adjectives based on antonymy and synonymy (Johnson, Anglin,1995) and verbs based on hyponymy and adjective clauses (Gaviilidou, 2008). It can be obtained from the above description that the semantic relations among words play important role in learning words of a language. The existence of many semantic relations among texts, considerable semantic networks and also paying attention to the objectivity or abstraction of semantic fields in the Persian textbook of elementary level, is one of the strengths of these books.

Keywords:

semantic network, semantic field, conceptual relations, Persian book, elementary school

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Assessment of Reading Capacity of Elementary Textbooks in Compliance with the PIRLS 2016 Assessment Framework

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Extended Abstract

Introduction:

Reading literacy is one of the most important abilities acquired by students in primary education. Reading skills are the basis for learning all academic and non-academic subjects. Pirls' study is based on the concept of the ability to read, that is, the ability to think and reflect on written texts and use these texts as a tool to achieve individual and social goals. In Pirls' study, literacy refers to the ability to understand and use textual formats that are needed by society or valuable to the individual. People who read a text interpret it in different ways. They study to learn, they study to participate in various school or daily life communities, or they study for fun and enjoyment.

Purpose:

In this paper, a content analysis study is reported, which aimed at examining the level of attention paid to the 2016 PIRLS Reading Assessment Framework in textbooks

Methodology:

content of all the read books, the first to sixth grades of the elementary school published in 2019 were selected for analysis. In the analysis process, each text page of the textbook was considered as a unit of analysis. The theoretical framework of the research literature related

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to the goal was obtained and the text of the lesson and the activities of the book were examined in terms of two literary and informational goals and four comprehension processes after modifying the framework

Results:

The results showed that reading textbooks of the elementary school had the greatest emphasis on literary texts and the process of "information concentration and retrieval" and the least emphasis on information texts and the process of "interpretation and evaluation of language content and text-related elements". This need to review and reform textbooks by curriculum planners and enhance the sensitivity of teachers as the curriculum executors in using new teaching methods along with using creative methods in providing educational content to strengthen the evaluation and interpretation skills and improving the reading literacy of students in next PIRLS tests.

Discussion:

Curriculum planners should make the necessary content corrections in elementary school reading books, and in selecting content, pay attention to selecting appropriate informational texts and designing activities to strengthen students' ability to interpret and integrate ideas and evaluate content.

Key words:

Evaluation, Content Analysis, Reading Literacy, Measurement Framework, PIRLS Study

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