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Designing Teacher Training Curriculum Based on Gardner's Five Minds Approach

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Abstract Howard Gardner is a psychologist who has defined the theory of five minds in five forms of disciplinary mind, synthesizing mind, creating mind, respectful mind and ethical mind. The writers of this article seek to present a model in the teacher training curriculum in the event of bringing up these minds and different printed and electronic available resources in the event of research objective are used. Content analysis and quantitative content analysis with comparative categorization system are used in this study. The results showed that paying attention to four main elements of curriculum including objectives, content, method and evaluation are prior and curricula are changed in line with these elements.

Keywords: Mind, disciplinary mind, synthesizing mind, creating mind, respectful mind, ethical mind, curriculum, teacher training

Introduction

Until the third decade of life, people spend most of their time at school than other institutions. They stay in touch with teachers and classmates even more than those with parents, siblings. Formal educational institutions are very effective in determining the amount that people are in the path of doing desirable activities and the emergence and occurrence of positive characteristics. Teachers play an important role in this regard and they present a sensitive job to people. Children ponder on the behavior of teachers, their attitude towards their profession and their interaction with caretakers, colleagues and assistants. They completely pay attention to the interaction method of their parents to their classmates and most importantly to their reaction to questions, responses and tasks by students.

Howard Gardner, the contemporary psychologist, attempted for the first time in 2011 with the publication of a book entitled as "Five minds for the future" to introduce five minds in the context of disciplinary mind, synthesizing mind, creating mind, respectful mind and ethical mind. Gardner, who has also presented multiple intelligence theory, states that individuals who are not able to nurture their cognitive abilities will face a vague future and will see their fate in the hand of forces that is out of their control. By arming with five minds, a person will be able to face predictable and unpredictable factors (Gardner, 2011). According to the novelty of the theory in the field of education, it has been less paid attention to by education authorities and trainers (Mehrmohammadi, 2009).

Research objectives

The main purpose: designing teacher training curriculum based on Gardner five minds

approach

Specific goals:

1. Determining the curriculum concept based on Gardner's five minds approach in the teacher training course
2. Determining the conceptual structure of curriculum based on Gardner's five minds approach in the teacher training course
3. Assessment of the conceptual curriculum model based on Gardner's five minds approach in the teacher training course

Research questions

The main question: Is it possible to design a model for the curriculum based on Gardner five minds approach for teacher training?

Special questions:

1. What is the concept of curriculum based on Gardner five minds approach in teacher training course?
2. How is the structure of the curriculum based on Gardner five minds approach in teacher training course?
3. How is the assessment of the conceptual model structure?

Research areas

Statistical population is not important in the quantitative researches and research area is been paid attention to instead. Research area in the content analysis section and analyzing is consisted of all printed and electronic scientific articles and resources related to the Gardner's five minds and in the content structure evaluation section, statistical population includes all the specialists of curriculum and educational psychology who are selected by available sampling method and they are asked to answer the designed questionnaire in order to evaluate the content and the frame work of five minds.

Research Method

In this study, conceptual analysis research method was used and the following steps were considered:

First stage: Howard Gardner's five minds concept interpretation: certain concepts and definitions, as well as required situations and conditions were identified and characterized using scientific resources, previous research, databases, books and available journals related to the five minds of Howard Gardner.

The second stage: conceptualization: it has been attempted at this stage to sum up the meaning of the five minds and their applications to be reviewed and considered.

The third stage: conceptual structure evaluation: at this stage, the previous concepts are compared with new concepts and their differences are discussed with previous concepts. Moreover, the required tool for gathering the information in the event of the validation of the primary theoretical framework is formed and experts' ideas are used on the theoretical framework validity using descriptive-survey and factor analysis methods.

Data collection tools:

Library method was used to complete the theoretical information and the literature review of the research and the questionnaire was used for the validation.

Data Collection Method

data collection method in this study is library method that is used in all researches. In some

research subjects, the research is completely dependent to this method in terms of methodology (Hafez Nia, 2008). Databases, search engines, validated websites and printed and electronic resources inside and outside the country are used to collect information and the recent researches in the world are also used. The researcher-made questionnaire is used for the evaluation and validation.

Methods and tools for data analysis:

Comparative categorization system is used in this study. The function of classification system used by the previous formula of extractive theory is analysis of different aspects and relating them to the text. The quality steps include methodical determining of the category in phrases of a text to be determined how it is described within a few steps of text analysis at that stage (Flick, 2009). Therefore, open, subjective and pivotal coding is used. Factor analysis method was used in order for the conceptual structure analysis and the exact determination of each of the components in the desired model and share analysis of each of the indexes in the desired model.

Results

At this stage, available printed and electronic resources are used to extract the research questions and the main concepts are determined after coding and classification. The concepts are extracted and evaluated in the form of four curriculum factors as: objectives, content, method and evaluation. Tables 1-1, 1-2, 1-3 and 1-4 are as the following:

Table 1. The main principles of objective selection in the curriculum of teacher training course in the event of educating five minds

37. individual dependence in a special area 57. the ability of synthesizing various events 104. improvement in operational areas 38. dominance and expertise in one major 40. getting informed of new information of the major 139. expanding knowledge and transforming the framework of concepts	Individual skills development	
273. understanding and accepting the individual differences 146. practicing being together 131. Peaceful interactions 143. paying attention to individual behaviors	Interpersonal interaction development	
150. the background of empathy and respect in children 151. the ability to live together 152. the different races interaction	Strengthening peaceful coexistence	
237. the realization of respectful mind through relationship with others	The betterment of interpersonal relationships	
1. the lack of the ability of learners of the learning material 2. the lack of specialized attitudes in people 16. the lack of systematic order of the learner		Educating technological expert learners
34. the lack of appropriate understanding of the current events 34. the lack of appropriate understanding of the technology approaches	The lack of appropriate understanding of technology approaches	
250. the relationship between actions, thoughts	Involving brain, mind and feelings	

<p>and feelings with mind 251. the relationship between mind and brain 252. the need of the mind to involve in different subjects</p>	
<p>253. the relationship between respectful mind with intrapersonal intelligence 254. the relationship between ethical mind with intrapersonal intelligence 255. the relationship between ethical mind with logical intelligence 256. the relationship between disciplinary mind and creating mind with verbal intelligence 257. the relationship between disciplinary mind and creating mind with spatial intelligence 258. the relationship between disciplinary mind and creating mind with intrapersonal intelligence 259. the complication between synthesizing mind and multiple intelligences 260. using multiple intelligences to educate synthesizing mind 261. the relationship between synthesizing mind with verbal intelligence 262. the relationship between synthesizing mind with logical intelligence 263. the relationship between synthesizing mind with visual-spatial intelligence 264. the relationship between synthesizing mind with interpersonal intelligence</p>	<p>The relationship between multiple intelligences and minds</p>
<p>25. need to different thinking methods 26. thinking and thought based on principles of basic majors</p>	<p>The improvement of thinking methods</p>
<p>208. strengthening religious values 209. the role of religious teachings in childhood 210. the relationship between religious teachings and forming values</p>	<p>Strengthening religious teachings</p>
<p>155.attention to social insights 158. required qualifications of teachers 197. more importance of morality than respect 186. changing respect to norm 187. respect to everyone’s beliefs 205. the importance of morality in society 248. the need to pay attention to moral codes</p>	<p>The development of moral principles</p>
<p>187. respect to everyone’s beliefs 199. considering social and occupational tasks 243. accepting assessment by others 173. understanding and accepting each other’s differences</p>	<p>The development of social skills</p>
<p>146. practicing being together 150. the background of empathy and respect in children 147. considering respect to all 186. changing respect to norm in the society</p>	<p>Reforming human relationships</p>

Table 2. The main principles of content selection in the curriculum of teacher training course in the event of educating five minds

14. the logical relationship between different sections	Step by step content
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15. ordering concepts and different sections 23. attention to step by step process in a special area	
31. indicating the self interpretation of the subject practically 32. indicating the self interpretation of the subject in different forms	Practical content
51. the combination of information as story 52. presenting information in the form of imagination 53. presenting information in the form of reality 54. story telling as imaginative and real forms	Story content as imaginative and real
55. presenting information as classified 56. presenting classified information in the form of table and graph	Classified content
58. combining simple information for achieving complex concepts 57. the ability to combine different phenomena	Complex content
48. using short phrases and proverbs 49. using metaphor	Metaphor content
62. combining concepts 63. hypotheses forming 57. the ability to combine different phenomena	Content based on hypothesis
83. the ability in straight determining of different parts of forming a project or a practical solution 139. knowledge expansion and deforming the concepts' framework 28. determining main concepts	Determining the concept and different parts of a project
169. attention to social sciences 170. attention to humanities 171. attention to arts 172. attention to literature	Attention to humanities
97. presenting information as simple combinations 98. presenting information as complex combinations 99. presenting information as a combination of complex and simple	Combining content
92. linking between concepts and things 139. knowledge expansion and deforming the concepts' framework	Linking between concepts and things
131. presenting multiple solution activities 132. presenting different methods of problem solving 133. generating games	Mind pervert curriculum

Table 3. The main principles of method selection in the curriculum of teacher training course in the event of educating five minds

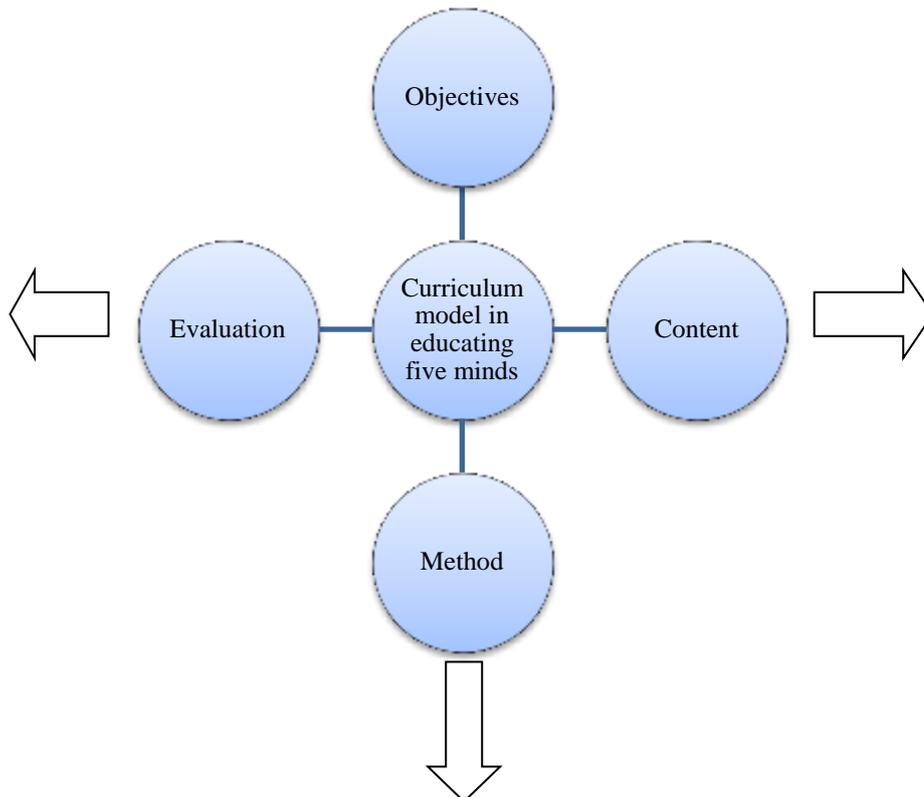
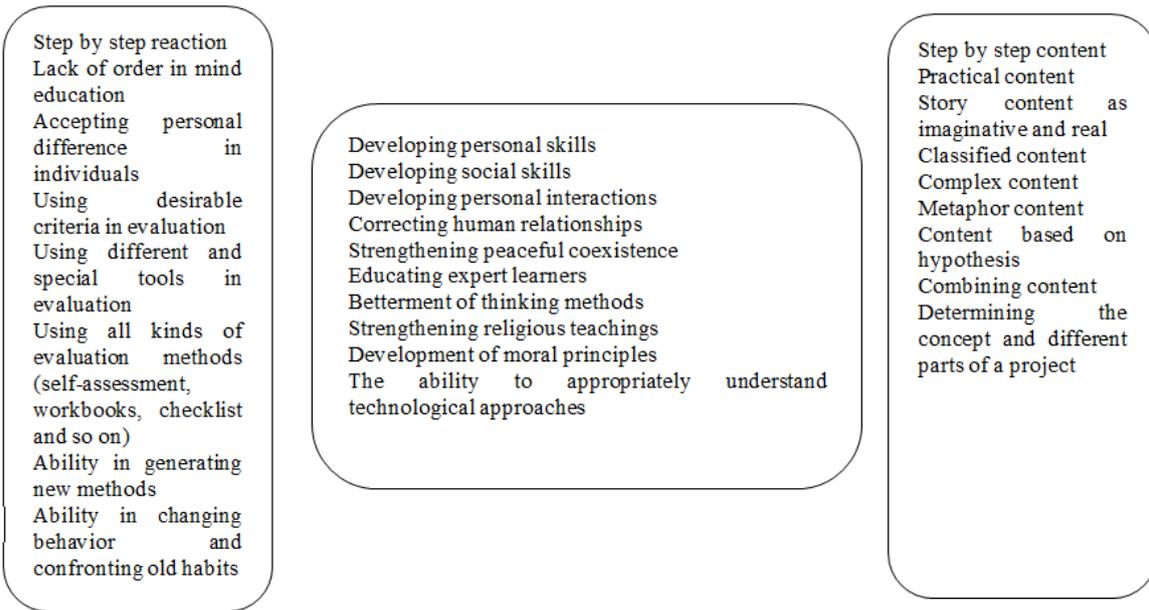
30. learning different methods 6. generating new methods in novel situations 84. teaching correct and general principles 91. using appropriate and diverse solutions and criteria	Acquiring different experiences
250. the relationship between actions, thoughts and feelings with mind 251. the relationship between mind and brain 252. the need of the mind to involve in different subjects	Involving brain, mind and feelings
253. the relationship between respectful mind with intrapersonal intelligence 254. the relationship between ethical mind with intrapersonal intelligence 255. the relationship between ethical mind with logical intelligence 256. the relationship between disciplinary mind and creating mind with verbal intelligence 257. the relationship between disciplinary mind and creating mind with spatial intelligence 258. the relationship between disciplinary mind and creating mind with intrapersonal intelligence 259. the complication between synthesizing mind and multiple	The relationship between multiple intelligences and minds

intelligences 260. using multiple intelligences to educate synthesizing mind 261. the relationship between synthesizing mind with verbal intelligence 262. the relationship between synthesizing mind with logical intelligence 263. the relationship between synthesizing mind with visual-spatial intelligence 264. the relationship between synthesizing mind with interpersonal intelligence	
80. acceptance and welcome of teachers of forming links 90. determining incomplete and incorrect combinations by teachers 132. presenting different methods of problem solving	Using different methods of education by teachers
92. linking between concepts and things 119. difference in teaching methods 127. attention to different solutions in problem solving 131. presenting multiple solution activities 132. presenting different methods of problem solving 65. using appropriate method or strategy 84. teaching general and correct principles of projects and complex issues	Betterment of teaching methods
127. attention to different solutions in problem solving	Different solutions

Table 4. The main principles of evaluation in the curriculum of teacher training course in the event of educating five minds

270. the difference in the evaluation of five minds	Attention to differences in the minds evaluation among individuals
277. lack of order in mind education	Lack of order in mind education
279. Emergence and expression of minds according to growth periods of individuals	Emergence and expression of minds in different growth periods of individuals
20. the successful complete of educational periods in a major 21. presenting appropriate reactions in a major 22. step by step pass in a major	Presenting step by step reaction

Finally, the conceptual model is presented including objectives, content, methodology and evaluation dimensions in curriculum as follows



Acquiring different experiences
Creating diverse challenging opportunities in education
Using different methods of education by teachers
Betterment of teaching methods
Involving brain, mind and feelings in teaching
Different solutions
Using social models family in teaching
The relationship between multiple intelligences and minds

Figure 1. Conceptual model of presents study

Conclusion

One thing is obvious and that is neglecting the importance of these five minds in the past, most systematic tasks will be simply done by computer and the relationship between different individuals and groups will be more than the past in the future that is full of scientific developments and torrential tend of information transfer based on technology. This world would not be a place for the people who have not educated these five minds. On the contrary, the possibility of success for the people who have educated these five minds will be very high. It should be noted that the support of teachers, trainers and principals in regard of the education and train of these minds is very vital and they should be models in this respect. Many influential people have mental deficiency in one or more of these features. And our society had been unaware of the importance of training these minds not so long ago.

An instructor who wants to educate these minds in students should illuminate the meaning of “betterment” in his mind in order for him and his students to criticize the endeavors done in this regard better and with more real criteria. A good teacher should identify and come over the barriers and difficulties in the way of educating minds among students.

In any situation, the education of these minds should not be stopped. There is no reason by which the education of one mind be delayed by the education of other minds. However, a kind of balance should be there in the education of these five minds.

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