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Aging education in elementary textbooks

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Abstract

The aim of this study is the examination of primary school textbooks as to how they cover the issues of elderly people and aging education. The study is a qualitative one wherein the method of document analysis has been used. A total of twelve primary school textbooks have been examined / analyzed within the scope of this study. For evaluation, a measurement system consisting of 8 themes and their constituent subthemes has been implemented. At the end of the study it has been concluded that primary school textbooks do not cover the subject of elderly people and aging education adequately and that the books contain negative representations of the elderly. It is thereby concluded that in order to ameliorate the attitudes of the students towards elderly people (and in order to cultivate in them an acceptance of their own aging), it is necessary to incorporate elderly people and aging education in primary schools and textbooks.

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1. Introduction

An increasingly aging population is considered to be one of the foremost demographical phenomena of our times. People tend to live longer while birth-rates drop, leading to an increase in elderly population both numerically and proportionally. The aging of the population impacts society from every angle ranging from health to social security, environmental issues to education, job opportunities to socio-cultural activities and family life (SPT, 2007). Aging, as an individual change, is the physical and psychological deterioration of the person (Cottle & Glover, 2007). Even though aging is an individual process, societal values and other factors determine the value that is attributed to age and aging within society. For this reason aging is not only a biological phenomenon but also a social and cultural one. According to a distinction made by World Health Organization, the following age intervals have been classified: 45-59 middle aged, 60-74 elderly, 75-89 old, 90+ very old. However, when studies carried out on the subjects of aging education are taken into consideration, it becomes apparent that individuals between the ages of 40 and 65 are considered to be middle-aged, and those above 76 to be elderly (Cottle & Glover, 2007; Hogben & Waterman, 1997). Not only is an aging population a problem faced by all countries, but it is indeed the greatest problem that modern society must face (Cottle & Glover, 2007; Dussen & Weaver, 2009; Gellis, Sherman & Lawrance, 2003; Huang, 2011; Klein, Council & McGuire, 2005; Lovell et al., 1996). For example, it is foreseen that people older than 65 will constitute 12.9% of the whole population of Northern America by 2025 (Lovell et al., 1996), whereas in Taiwan it is calculated that they will constitute 20% of the whole population by 2025 (Huang, 2011).

An increase in average life expectancy and an expansion of the aging population have also caused a dramatic increase in the aging population of Turkey. The percentage of people over 65 comprised 5.7% of our population in

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2005, which increased to 7.2% by 2010 and to 7.3% by 2011 (TSI, 2011). It is predicted that this percentage will have reached 17.6% by 2050 (TSI, 2011).

The constant increase in average life expectancy and in the numbers of the elderly adult population makes it necessary for individuals to comprehend their own aging process and cultivate a positive attitude towards elderly people (Gellis, Sherman & Lawrance, 2003). Negative stereotypes about age that pervade society influence not only elderly people but also the younger generations (Cottle & Glover, 2007; Dodson & Hause, 1981; Dussen & Weaver, 2009; Friedman 1997; Huang, 2011). Studies carried out on the subject of ageism in the US reveal that attitudes such as shunning elderly people and refusing to work with them have come to pervade society, including children as young as four (Anderson, 1999). If both ageism and an understanding towards age have its basis in the individual, then the knowledge and attitude of the individual on the subject may be ameliorated through the education offered in schools. However Klein, Council, and McGuire (2005) emphasize the fact that no courses exist in schools wherein students may be informed regarding aging and whereby their own attitudes may be improved. As students do not receive any kind of education on the subject of aging in schools, they internalize the prejudices of society and indulge in ageism deliberately (Huang, 2011). Klein et al. (2005) indicate that education on the subject must begin in early childhood (ages 5-7) in order to equip children with positive knowledge about (and positive attitudes towards) aging. When current literature on aging education is taken into account, it is seen that the studies carried out on the subject are comprised of descriptive studies which determine the attitudes and levels of information regarding elderly people, experimental studies, and qualitative studies which encompass the examination of textbooks as to how they cover aging education. Textbooks are significant tools which reflect societal perspectives and which are used for molding and orienting society. In this regard, textbooks are of critical value in aging education.

Many studies have been carried out globally which scrutinize textbooks and how they cover aging education. Whitbourne and Hulicka (1990) mention in their studies that all textbooks published in the US up until 1989 had limited depth and scope about old age. Dodson and Hause (1981) examined a total of 800 books, both children's and adult fiction, and depicted the clichés and negative imagery pertaining to elderly people pervading authors and society. According to an analysis of such imagery, authors consistently use adjectives such as "sad," "worthless," "poor," and "old" to describe elderly people. Old women are depicted as either fat or very thin and wearing aprons, whereas old men are depicted as wrinkly, white-haired and using walking sticks. Elderly people have been portrayed as cantankerous and intolerant of mistakes, engaged with passive occupations such as story-telling, fishing, and housework. Kalab (1985) on the other hand investigated 20 books on Sociology and Social Gerontology and observed that people over 65 were frequently referred to as "old" and "elderly." Stolley and Hill (1996) carried out content analysis of 27 different books on marriage and family, establishing that elderly individuals are regarded as separate from the rest of the household. McGuire (1987) determined that lifespan development books are concerned very little about aging whereas Kramer, Hovland-Scafe and Pacourek (2003) has found out that among the 50 different Social Work books he examined, only 3% of them covered aging at all. Huang (2011), in a study which examined a total of 44 books used in Taiwan schools, has discovered that only 3.9% focus on aging (only 1.9% devote a chapter to the subject) and that the depictions of elderly men and elderly women in the books are not gender-equal. Furthermore, elderly people are generally depicted as sick and independent on others. Even though studies on aging education and advanced age abound in international literature, studies in this regard are almost nonexistent in our country. The few studies carried out are descriptive studies which demonstrate the circumstances of aging in our country (e.g. SPT, 2007; TSI, 2011).

The aim of the present study is the examination and evaluation of how (and to what extent) primary education textbooks cover elderly people and aging education. The study is significant and valuable for two reasons: national literature has no antecedent of this sort and the study will bring a new perspective to extant literature on textbooks. It is also important and valuable since it will be reflective of societal attitudes towards the elderly, as well as the problems which must be faced as a consequence of an ever-expanding elderly population within the changing fabric of society.

1. Method

Among the qualitative methods of research, document analysis technique has been used for the purposes of this study. According to Wiersma (2000) document analysis is a technique which is used in the collection and systematic analysis/evaluation of data. The examination of documents encompasses an analysis of written materials which are informative of the phenomenon or phenomena being investigated.

2. 1. Sampling

Because aging education must start with early childhood, a total of 12 books which span primary education (“Life sciences” textbooks for the 1st, 2nd, 3rd years; “Social Science” textbooks for the 4th, 5th, 6th, 7th years; “Science and Technology” textbooks for the 4th, 5th, 6th, 7th years) have been scrutinized.

The educational acquisitions of the “Life sciences” course include information which will be the basis of “Social Science” and “Science and Technology” courses (Kiroğlu, 2006). “Social Science” and “Science and Technology” are therefore the continuations of “Life sciences” in later terms. As a consequence, textbooks on these three primary education courses have been analyzed as to how they cover aging.

2. 2. System of measurement and data analysis

For the analysis purposes, the study determined the drawings and photos which seemed to depict the elderly, as well as texts in which elderly individuals and advanced age were covered. These visuals and texts about old age were collected in three categories: *Visuals*, *Texts*, and *Visuals and Texts*. *Visuals* are comprised of the drawings and photographs which seem to depict the elderly. Repetitive icons which occurred in the book were excluded from the visuals. *Texts* are the written sections which cover or mention elderly individuals. *Visuals and Texts*, on the other hand, are visuals (which seem to depict the elderly) supported by texts, i.e. a visual of an elderly individual occurring together with a passage. Qualitative analysis was carried out through the categorization of these visuals and texts about elderly individuals in the textbooks, whereas the numerical and proportional assessment of such data constituted the quantitative analysis.

Seven themes exist in relevant literature regarding aging education (Couper & Pratt, 1999; Dodson & Hause, 1981; Huang, 2011; Markson & Pratt, 1996). These are *Distribution Ratio*, *Gender*, *Character Role*, *Professional Role*, *Physical Traits*, *Intergenerational Relations* and *Personality Traits*. With a mind to these themes, the researches involved in this study applied a preliminary analysis to these books. After an examination of these individual themes, a common theme table was constituted. The themes are: *Distribution Ratio*, *Gender*, *Character Role*, *Professional Role*, *Physical Traits*, *Leader of Society* and the *Intended Message*.

Twelve books were subjected to this preliminary analysis by six researchers, such that every researcher had to analyze two, within a framework of relevant themes and codes. For every book the *visuals*, *texts*, and *visuals and texts* were categorized according to these themes. The books were examined a second time after the researchers exchanged the books they had been examining, such that every book was analyzed by two different individuals. After the dual examination, two thematic categorization tables (created by different researchers) emerged. Whenever there seemed to be a discrepancy between the codification of these themes, the two researchers who had examined the book in question studied the code again and the book was codified anew following their consensus.

2. 3. Findings

A total of 12 primary school textbooks and 2589 pages were analyzed within the scope of this study. The findings reflecting the numbers of pages wherein visuals, texts, and visuals & texts relevant to the subject occurred in the books examined may be found in Table 1.

Table 1. The distribution of aging education by textbooks

<i>1.1. Book name</i>	<i>1.2. Number of 1.3. pages(d)</i>	<i>1.4. 1.5. Visuals(a)</i>	<i>1.6. 1.7. Texts(b)</i>	<i>1.8. Visuals and 1.9. Texts (c)</i>	<i>1.10. Total 1.11. (a+b+c=e)</i>	<i>1.12. Percent 1.13. (e/d*100)</i>
<i>1.14. Life Sciences 1</i>	<i>1.15. 140</i>	<i>1.16. 1</i>	<i>1.17. -</i>	<i>1.18. 12</i>	<i>1.19. 13</i>	<i>1.20. 9,2</i>
<i>1.21. Life Sciences 2</i>	<i>1.22. 151</i>	<i>1.23. 18</i>	<i>1.24. 1</i>	<i>1.25. 6</i>	<i>1.26. 25</i>	<i>1.27. 16,5</i>
<i>1.28. Life Sciences 3</i>	<i>1.29. 185</i>	<i>1.30. 10</i>	<i>1.31. 1</i>	<i>1.32. 7</i>	<i>1.33. 18</i>	<i>1.34. 9,7</i>
<i>1.35. Science and Technology 4</i>	<i>1.36. 237</i>	<i>1.37. 1</i>	<i>1.38. 1</i>	<i>1.39. 8</i>	<i>1.40. 10</i>	<i>1.41. 4,2</i>
<i>1.42. Science and Technology 5</i>	<i>1.43. 247</i>	<i>1.44. 3</i>	<i>1.45. 1</i>	<i>1.46. -</i>	<i>1.47. 4</i>	<i>1.48. 1,6</i>
<i>1.49. Science and Technology 6</i>	<i>1.50. 279</i>	<i>1.51. 8</i>	<i>1.52. -</i>	<i>1.53. 2</i>	<i>1.54. 10</i>	<i>1.55. 3,5</i>
<i>1.56. Science and Technology 7</i>	<i>1.57. 279</i>	<i>1.58. 6</i>	<i>1.59. 1</i>	<i>1.60. -</i>	<i>1.61. 7</i>	<i>1.62. 2,5</i>
<i>1.63. Science and Technology 8</i>	<i>1.64. 270</i>	<i>1.65. 9</i>	<i>1.66. -</i>	<i>1.67. -</i>	<i>1.68. 9</i>	<i>1.69. 3,3</i>
<i>1.70. Social Science 4</i>	<i>1.71. 183</i>	<i>1.72. 5</i>	<i>1.73. 7</i>	<i>1.74. 24</i>	<i>1.75. 36</i>	<i>1.76. 19,6</i>
<i>1.77. Social Science 5</i>	<i>1.78. 211</i>	<i>1.79. 5</i>	<i>1.80. 4</i>	<i>1.81. 17</i>	<i>1.82. 26</i>	<i>1.83. 12,3</i>
<i>1.84. Social Science 6</i>	<i>1.85. 211</i>	<i>1.86. 6</i>	<i>1.87. 2</i>	<i>1.88. 8</i>	<i>1.89. 16</i>	<i>1.90. 7,5</i>
<i>1.91. Social Science 7</i>	<i>1.92. 196</i>	<i>1.93. 13</i>	<i>1.94. 1</i>	<i>1.95. 4</i>	<i>1.96. 18</i>	<i>1.97. 9,1</i>
<i>1.98. TOTA L</i>	<i>1.99. 2589</i>	<i>1.100. 85</i>	<i>1.101. 19</i>	<i>1.102. 88</i>	<i>1.103. 191</i>	<i>1.104. 7,3</i>

In a total of 2589 pages in the textbooks analyzed, the number of pages wherein texts, visuals and text & visuals occur is 191 in total. As explained in the table 1, the books include a total of 85 visuals about aging education. The textbook which contains the highest number of visuals on aging education is the “Life sciences, 2nd Year Textbook” and the textbooks which contain the smallest number of visuals are “Life sciences, 1st Year Textbook” and “Science and Technology, 4th Year Textbook.”

When the books were examined, it became apparent that aging education was mentioned no more than a total of 19 times in texts (as can be seen in the table 1). Among all the books, “Life sciences, 1st Year Textbook” and the Science and Technology textbooks for the 6th and 8th years included no text whatsoever about aging education. In the textbooks thereby studied, visuals & texts possess the richest content in terms of aging education. A total of 88 text & visuals on aging education are used together in all the books analyzed (with the exception of the Science and Technology textbooks for the 5th, 7th, and 8th years). The book to contain the greatest number of visuals and texts together is the “Social Science, 4th Year Textbook.”

The distribution of the codes and themes which appeared in the visuals, texts, and visuals & texts in the textbooks studied may be found in Table 2. When the themes and codes relevant to the visuals, texts, and visuals & texts of all

the books combined are taken into consideration, it is understood that the frequencies and percentages in the table 2 cover all textbooks.

Table 2. The distribution of the visuals, texts, and visuals & texts about aging education occurring in the textbooks according to the relevant themes and codes

<i>1.105. Themes</i>	<i>1.106. Codes</i>	<i>1.107. f</i>	<i>1.108. %</i>
<i>1.109. 1. Gender</i>	<i>a. Elderly woman</i>	<i>1.110. 76</i>	<i>1.111. 34</i>
	<i>b. Elderly man</i>	<i>1.112. 147</i>	<i>1.113. 66</i>
<i>1.114. 3. Character Role</i>	<i>a. Single photographs</i>	<i>1.115. 47</i>	<i>1.116. 26</i>
	<i>b. Within the family</i>	<i>1.117. 51</i>	<i>1.118. 28</i>
	<i>c. Outside the family</i>	<i>1.119. 83</i>	<i>1.120. 46</i>
<i>1.121. 4. Professional Role</i>	<i>a. Have a job</i>	<i>1.122. 79</i>	<i>1.123. 46</i>
	<i>b. Jobless</i>	<i>1.124. 24</i>	<i>1.125. 14</i>
	<i>c. Indefinite</i>	<i>1.126. 69</i>	<i>1.127. 40</i>
<i>1.128. 5. Physical Traits</i>	<i>a. Healthy and independent</i>	<i>1.129. 149</i>	<i>1.130. 86</i>
	<i>b. Unhealthy and dependent</i>	<i>1.131. 6</i>	<i>1.132. 4</i>
	<i>c. Unhealthy and independent</i>	<i>1.133. 18</i>	<i>1.134. 10</i>
<i>1.135. 6. Intergenerational Relations</i>	<i>a. Different generations relation</i>	<i>1.137. 108</i>	<i>1.138. 50</i>
	<i>b. Same generations relation</i>	<i>1.139. 51</i>	<i>1.140. 23</i>
<i>1.136.</i>	<i>c. Unrelation</i>	<i>1.141. 58</i>	<i>1.142. 27</i>
<i>1.143. 7. Leaders of Society</i>	<i>a. Ottoman emperors</i>	<i>1.144. 2</i>	<i>1.145. 9</i>
	<i>b. Scientists</i>	<i>1.146. 20</i>	<i>1.147. 91</i>
<i>1.148. 8. Intended Message</i>	<i>a. Texts are supported with visual</i>	<i>1.149. 31</i>	<i>1.150. 17</i>
	<i>b. Texts and visual are not related</i>	<i>1.151. 150</i>	<i>1.152. 83</i>

2. 3. 1. Gender

Looking at the distribution rates of the table 2, it becomes obvious that the number of elderly men represented is approximately twice that of elderly women. Elderly men are often characterized as grandfathers and elderly women as grandmothers.

2. 3. 2. Character role

Character role has been mentioned a total of 181 times in the visuals and texts on aging education which occur in the textbooks studied. 26% of them occur in single photographs, 28% within the family and 46% outside the family. Elderly people represented within the family are often depicted either occupied with childcare or in passing information to other family members. In some visuals, old people have been mentioned as family elders who should be visited on some holidays and special days.

2. 3. 2. Professional role

It is significant that the visuals which depict elderly people as professionals focus almost exclusively on elderly men. Their professions nevertheless are those which are considered to be forms of traditional labor, represented to a lesser degree in modern society. When elderly people without jobs have been mentioned, both women and men have been included in the content. Visuals and texts pertaining to this subclass depict individuals preoccupied with shopping, taking care of children, and garden work.

2. 3. 4. Physical traits

When the physical traits of the elderly people depicted in the textbooks are taken into consideration, it is seen that 86% of them have been depicted as healthy and independent, 4% as unhealthy and dependent and 10% as unhealthy but independent. Elderly people who are healthy and independent are, in this context, those who do not need either another individual or a technological instrument in order to continue their lives. The 10% are comprised of individuals who require technological products (e.g. a walking stick) in order to walk or stay upright. Those who constitute the smallest number are the unhealthy and dependent who have been depicted as bedridden, requiring the assistance and care of another individual.

2. 3. 5. *Intergenerational relations*

Visuals which address intergenerational relations in the textbooks studied depict whole families wherein grandfathers and grandmothers take care of dinner tables and children on holidays. The elderly men and women have been depicted as solitary in the pictures where no such relation exists.

2. 3. 6. *Leaders of society*

In the visuals and texts on aging education, 9% of them are representations of the Ottoman emperors and 91% are those of scientists. Leaders of society, as delineated in the table 1, occur with greater frequency in the textbooks for Social Science and Science and Technology. The great majority of the visuals used in relation to these individuals depict them in advanced age.

2. 3. 7. *Intended message*

In the textbooks thereby studied, there is no intentional message lucidly expressed on the subject of aging education. 17% of texts were supported with visuals whereas 83% had no direct connection to the visual material. When the classes and units which include texts and visuals about elderly people are taken into consideration, it is seen that visuals have been made use of in a pertinent manner. For example, concerning the subject of genetic variation, visuals which included elderly family members were utilized. In a similar manner, a unit about Senior Citizens Week made use of visuals portraying the elderly.

2. **Conclusion, discussion, and recommendations**

3. 1. *Conclusion and discussion*

The study has discovered that the books examined include an insubstantial amount of visuals, texts, and visuals & texts about aging education and elderly people. Among the 12 books examined in this manner only 7% of all pages include visuals or texts about the elderly. According to this conclusion, 93% of the content omits any information whatsoever regarding aging and the elderly. Overall, elderly people are underrepresented. These figures reveal that the textbooks do not include enough information on elderly people, who constitute an ever-increasing portion of society. This conclusion is in accordance with the findings of Huang (2011), Tompkins, Larkin, and Rosen (2006), and Dodson and Hause (1981). According to a study carried out by Dodson and Hause (1981), American textbooks produced up until 1965 exclude the representation of elderly people altogether. That the social position and significance of elderly people are omitted from textbooks increases the lack of information on behalf of the students towards the elderly (Kramer et. all, 2003; Stuart-Hamilton & Mahoney, 2003). When the distributions in the Table 1 are taken into account, it might be possible to draw the conclusion that textbooks on Social Science include more content regarding aging and the elderly. However, this may be a result of the fact that leaders of society are overrepresented in these textbooks (the visuals preferring to depict them in advanced age). That textbooks on Social Science are more inclusive of elderly people is in accordance with some of the findings in extant literature (e.g. Fleming & McAuley, 1987).

Apart from the inclusion of the content on aging and the elderly in these textbooks, the societal, familial and social roles of the elderly people depicted in such content are just as significant (Anderson, 1999; Couper and Pratt, 1999). This proceeds from the fact that quality is more important than quantity in books. Through these qualities it may be possible to cultivate the knowledge and attitudes of individuals towards aging and the elderly. When the visual representations are viewed from a gender basis, it becomes apparent that elderly men (as opposed to elderly women) are overrepresented in the textbooks. Similar conclusions were drawn by Huang (2011), who discovered in his study that 56% of all elderly figures in books are male whereas only 39% happen to be female. Similar conclusions were drawn from other studies that may be found in extant literature (Couper & Pratt, 1999; Stuart-Hamilton & Mahoney, 2003). It is seen that not only are elderly women subjected to ageism but also become the objects of negative stereotypes. Elderly women are usually dressed in a kind of work uniform, cover their hair, and are usually preoccupied with either housework or childcare in these representations.

The extent to which textbooks cover aging and age education and how this coverage is to be categorized according to various themes are possible criteria to be employed in the evaluation of such textbooks. However one other point to be brought into consideration in this evaluation process is whether these visuals and texts have been incorporated deliberately or incidentally into the material. The study has reached the conclusion that whenever the teaching material intended to give a message, the text and the visual were unrelated in 83% of the time and related only in 17%. These results demonstrate to us that textbooks do not aim at the inclusion of elderly people and aging education as such. An additional observation to make is that the textbooks tend to avoid the representations of the elderly whenever they can, incorporating such visuals only when they are necessary.

3. 2. Recommendations

The awareness that aging is a natural, inevitable, and lifelong process (as well as an understanding and positive attitude towards elderly people) may be taught in schools. Textbooks, indispensable as they are for schools, are not merely informative. They prepare the students to life at large via the messages they deliver. In this regard textbooks are efficient instruments in cultivating the knowledge and the attitudes of students towards aging and the elderly. In order for textbooks to incorporate age education and elderly people, it is necessary to supplement extant curricula with the relevant acquisitions. It is therefore a necessity to review curricula and supplement them with such acquisitions.

It is important not to disregard gender equality in the ‘visuals,’ ‘texts,’ and ‘visuals-texts’ which occur in relation to aging education in these textbooks. Elderly women and men must be equally represented. Many studies carried out in this field demonstrate that textbooks still bear the traces of a sexist perspective. It is therefore necessary that the studies acquire continuity and that they be followed regularly. For this purpose, it is a necessity to spread the efforts and studies of the Social Gender Equality Commission (inaugurated within the body of the Board of Education and Discipline) to every school, every teacher, indeed to every individual in our country (Asan, 2010).

The intended messages should be lucidly expressed in these textbooks through the association of the visual and textual materials on the subjects of aging education and the elderly. To this purpose, the textbooks should be organized with a mind to the harmony between the visual and textual elements. On the other hand, implicit agendas (which have a significant role in textbooks) should also be made use of to deliver these messages and to draw the attention of the student in the desirable direction.

It is recommended that studies which examine textbooks as to how they cover aging and the elderly and which reveal the knowledge levels and attitudes of the students towards the elderly be carried out in the future. It may therefore be possible to reveal to what extent textbooks are reflective of societal attitudes and what kind of subjects should be included in them.

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