

A survey on Iranian children's ancient literature and heritage soft wares in terms of storage, information retrieval and designing criteria in Iran.(an Iranian experience)

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Abstract

purpose: The aim of this research is to study the storage ,information retrieval and designing of educational children's soft wares in Iran with approach Iranian and heritage of ancient literature, storytelling, poetry, proverbs, traditional games, historical and scientific training. Produced educational soft wares for children with different theme have been designed by educational organizations in order to use in libraries.

Methodology: The research method is a survey evaluation and data was collected by a standard checklist .The esthetical population is 100 educational soft wares that have been produced by educational organizations during 2012 in Iran.

Findings: The findings of the research showed that 47.5% soft wares of storytelling, ancient literature and proverbs, traditional games are observed storage and information retrieval criteria. 67.73% soft wares of religious, scientific, historical, and poetry are observed of designing criteria.

Conclusions: The results indicate from 100 produced Iranian soft wares by educational organizations ,they are Varity of the topics of ancient heritage and literature (30 %) storytelling (13%), religious (22%), education and scientific (10%), poem-Reading (14%), Iranian proverbs (7%), and traditional game (4%).Also the results show these soft wares in terms of storage, information retrieve criteria aren't in suitable condition, but in terms of designing criteria are suitable. The results of the first hypothesis test show that less than 60% of the 50 soft wares conform with storage, retrieve criteria and they are in a good condition.

Therefore the first hypothesis test was confirmed. Also results show that less than 50 of soft ware conformed with 60% of designing criteria. Then this hypothesis was rejected.

Keywords: storage, information retrieval, soft wares, designing, Iran.

Introduction

Within the recent years, production of educational electronic resources for children has been increasing in Iran and all types of soft wares with the different names and different educational contexts have been manufactured. These resources include various audio and visual information and different trainings in the different thematic contexts for training the children, in general. Most of producers of these resources try to produce the software through which can introduce the ancient

culture and civilization of Iran that is the lasting heritage and legacy of our fathers and forefathers, to the kids. The librarians of children libraries and schools librarians can also be effective on uprising the children's awareness and attraction to the libraries through identifying these resources (such as books) and collecting the most appropriate ones and so introduce the world of technology and information as well as our country's written ancient and lasting heritage, to the children.

Assessment of children's software shall be considered not only with respect to the validity and accuracy of information and economic and social significance of relative information and providers of such information resources, but quality of data storage and retrieval and software design in these resources shall be considered and assessed in order to guarantee the subsequent efforts for development of information marketing systems. If this evaluation and selection is performed correctly, then they will be very effective on realizing the following goals:

- 1- Achieving the new experiences and information about the different issues (promotion of academic perspective);*
- 2- Aiding to national language training and learning;*
- 3- Introducing the national culture to the child, interesting to the world culture and strengthening the world peace;*
- 4- Training and developing the capability of spoken and written interpretation and explanation and artistry (Hejazi, 2002)*
- 5- Assessment of kids' software shall be considered not only with respect to the validity and accuracy of information and economic and social significance of relative information and providers of such information resources, but quality of data storage and retrieval and software design in these resources shall be considered and assessed in order to guarantee the subsequent efforts for development of information marketing systems.*

Research questions

- 1. Are the children's educational soft wares in terms of storage and information retrieval consist with the criteria of electronic information storage?*
- 2. Are the children's educational soft wares in terms of management system and design consistent with criteria?*

Research hypothesis

- 1. Less than half of children's educational soft wares in terms of storage and information retrieval consistent with the criteria of information retrieval and storage.*
- 2. Less than half of children's educational soft wares in terms of design consistent with the criteria management system.*

Literature review

No research has been applied in Iran on the assessment of children's soft wares so far, thus we mention the reviews relating to data storage and retrieval in other databases.

Babolhavaeji (2001) in a study titled "assessment of the effect of using compact disks in the academic researches of Iran and presenting factors for improvement of information marketing of such resources" has assessed the Islamic Sciences' software used by the researchers in informing centers, and researchers' use of these resources for academic researches and writing the books and articles.

The summary of results indicated that out of 330 researchers referred to these centers, 79.8% had personal interest and 52.1% intended to provide the research paper. 60.3% thereof expressed that the use of optic CDs has affected the result of their research. Also, the findings indicated that totally 23 software out of 52 software were assessed as middle status and 3.8% of which as weak and only 5.8% of which were assessed as very good status.

Ghorbani (2007) in his study on “assessment of data storage and retrieval in the database under Iranian Studies CD” concluded that 32.2% of data storage standards, 7.5% of data search and retrieval standards, 20.7% of indexing standards and 51.6% of software design standards have been observed by data banks under Iran Studies CD. Also, he concluded that the data storage and retrieval of databases under Iran Studies CD have inappropriate status and middle status in the design.

Shvadlenko (2004) expresses his purpose of providing a research titled “evaluation of environmental education software: protecting your environment” is to evaluate an educational software for environment published by Ohayo Environment Conservation Agency and concluded that no considerable difference existed in the environment test before using the software whether at home or in school. This difference after using this software by the students at home or school showed that the awareness of students used it in school is more than those used this software at home. The researcher understood that if this software is used according to a specific structure at class, the children’s awareness of environment will be increased intensively.

Rich (2004) in his study under title of “design attributes of educational computer soft wares for optimizing girls’ participation in educational game playing” concluded that the girls’ participation in the preschools studies training in Australia is lower than the boys. This research proceeds with identification of design attributes of educational computer software favored by the girls.

Bogard (2006) in a study “advancements in frameworks for educational through sound software engineering principles” explains his purpose as advancement of educational software through appropriate design of these software. Firstly, the outline of frameworks required for educational software has been presented. The current educational software is assessed based on their basic structure. According to the analysis of data, it is concluded that architectural changes shall be applied on the educational software framework and a module with the lowest connection and high coherence has been suggested for this architectural changes.

Kazanci & Okan (2009) in their study titled “evaluating English language teaching software for children: education or entertainment or both?” intend to suggest the data storage and retrieval and educational soft wares design standards particularly for the kids. This research explains the factors cause the effectiveness of educational software.

In the extant paper, it is assumed that less than half of educational soft wares for children as regard to the data storage and retrieval conform to the standard data storage and retrieval. As well as, the software design of less than half of educational soft wares for kids conforms to the soft wares design and production standards.

The essential questions propounded in this research include that to which extent the data storage and retrieval of studied software conform to the valid standards of electronic information storage? To which extent the system management and software design of studied software conform to the standards?

Research methodology

In this study, evaluation survey method has been applied. The statistical population includes all educational soft wares for children which have been produced in Iran by public educational institutes. These soft wares have been identified by means of websites of children' educational soft wares producers and internet shopping centers and 100 educational soft wares for children have been collected of which 30 soft wares relate to Iranian ancient literature, 22 soft wares to religious teachings, 14 soft wares to poem-reading, 13 soft wares to storytelling and narrative, 10 soft wares to scientific and historic trainings, 7 soft wares to Iranian proverbs and 4 soft wares relate to education of traditional games in Iran.

In this study, the data has been collected by checklist that contains the data storage and retrieval and soft wares design standards. The standards of this checklist have been derived from instruction for evaluation of educational soft wares for children and checklist of previous studies including 55 design standards and 10 data storage and retrieval standards. To assess each standard, two options "yes" and "no" have been considered. For each index, option "yes" in CD is specified by 1 and in the event of lacking the index, option "no" has been specified by 0.

Data analysis

First question: Are the children's educational soft wares in terms of storage and information retrieval consisting with the criteria of electronic information storage?

In this study, 10 different standards of storage and information retrieval in the children's educational soft wares have been evaluated. The results of which have been provided in table 1.

Table 1: Frequency distribution of data storage and retrieval in the educational software for children

Row	Standards	Ancient literature		Religious teachings		Poem-reading		Storytelling		Scientific and historic trainings		Iranian proverbs		Traditional games	
		Frequency		Frequency		Frequency		Frequency		Frequency		Frequency		Frequency	
		Has	Doesn't have	Has	Doesn't have	Has	Doesn't have	Has	Doesn't have	Has	Doesn't have	Has	Doesn't have	Has	Doesn't have
1	Support of textual data	25	5	22	0	4	10	10	3	8	2	7	0	3	1
2	Support of numerical data	13	17	0	22	7	7	5	8	5	5	6	1	1	3
3	Support of textual-numerical data	10	20	0	22	2	12	4	9	5	5	6	1	1	3
4	Support of audio file in software	28	2	22	0	13	1	13	0	9	1	7	0	4	0
5	Support of video files in software	30	0	22	0	14	0	13	0	10	0	7	0	4	0
6	Relation between audio and video files containing information	28	2	22	0	13	1	13	0	9	1	7	0	4	0
7	Separation and transmission of a part of information in software	2	28	0	22	1	13	2	11	5	5	0	7	0	4
8	Updating the data in software	0	30	0	22	0	14	0	13	0	10	0	7	0	4
9	Predicting a place for storage and print of functions summary	7	23	0	22	2	12	6	7	5	5	0	7	0	4
10	Storage and redisplay of summary of previous activities	1	29	0	22	0	14	6	7	1	9	1	6	0	4
Total frequencies		144	156	88	132	56	84	72	58	57	43	41	29	17	23
Frequencies rate		48%	52%	40%	60%	40%	60%	55.38%	44.62%	5.7%	4.3%	58.57%	41.43%	42.5%	57.5%
Sum total of frequencies													475	525	
Sum total rate of frequencies													47.5%	52.5%	

The results of above table indicates that 83.3% of Iranian ancient literature educational soft wares, 100% of religious teachings and Iranian proverbs software, 28.57% of poem-reading soft wares,

76.92% of storytelling and narrative soft wares, 80% of scientific and historic trainings soft wares and 75% of traditional games playing soft wares for children support the textual data.

43.33% of Iranian ancient literature educational soft wares, 50% of poem-reading and scientific and historic training soft wares, 38.46% of storytelling and narrative soft wares, 85.71% of Iranian proverbs educational soft wares and 25% of traditional games playing soft wares support the numerical data. None of religious teachings soft wares supports this standard.

33.33% of Iranian ancient literature educational soft wares, 14.28% of poem-reading, 30.76% of storytelling and narrative soft wares, 50% of scientific and historic training soft wares, 85.71% of Iranian proverbs educational soft wares and 25% of traditional games playing software support the textual-numerical data. None of religious teachings soft wares supports this standard.

93.93% of Iranian ancient literature educational soft wares, 100% of religious teaching, storytelling, Iranian proverbs and traditional games, 92.85% of poem-reading soft wares and 90% of scientific and historic training soft wares support the audio files.

All assessed soft wares means 100% of soft wares supports the audio files.

93.33% of Iranian ancient literature educational soft wares, 92.85% of poem-reading soft wares, 90% of scientific and historic training soft wares and 100% of religious teachings, storytelling, Iranian proverbs and traditional games playing soft wares have relationship between audio and video files and their information content.

6.66% of Iranian ancient literature educational soft wares, 14.7% of poem-reading, 15.38% of storytelling and narrative soft wares, 50% of scientific and historic training soft wares have the capability of separation and transmission of a part of data in the soft wares, and none of religious teachings, Iranian proverbs and traditional games educational soft wares have this capability.

None of assessed soft wares has the capability of updating the data in soft wares.

23.33% of Iranian ancient literature educational soft wares, 14.28% of poem-reading, 46.15% of storytelling and narrative soft wares, 50% of scientific and historic training soft wares have the capability of predicting an area for storing and printing the summary of performance, and none of religious teachings, Iranian proverbs and traditional games educational soft wares have this capability.

3.33% of Iranian ancient literature educational soft wares, 46.15% of storytelling and narrative softwares, 14.28% Iranian proverbs educational soft wares and 10% of scientific and historic training softwares have the capability of storing and redisplaying the summary of previous tasks. None of religious teachings, poem-reading and traditional games educational soft wares have this capability.

According to the data of above table, it is concluded that only support of video files has been observed in all softwares and support of audio files and relationship between audio and video files with information content have the maximum frequency rate.

Sum total of frequency considers the value of observing storage and information retrieval in all 100 softwares. Whereas 10 different standards have been allocated for assessment of 100 soft wares, altogether 1000 standards have been studied for all soft wares. As it is observed out of 1000 standards, only 475 cases have been observed by educational soft wares for children that include total

storage and information retrieval indices. Therefore, the studied soft wares have no appropriate status in observing the storage and information retrieval indices.

Similar to these results has been found by Ghorbani (2007) in a research titled “evaluation of storage and information retrieval in the databases under Iranian Studies CD. The data storage and information retrieval has no appropriate status in these databases.

Second question: Are the children's educational soft wares in terms of management system and design consistent with criteria?

To answer this question, in this study 55 different standards have been assessed for evaluation of soft wares design attributes in the educational soft wares for children. Out of these 55 standards, 27 standards (table 2) are related to the ease to use and educational aspects of soft wares and 28 standards (table 3) are related to child-favoring and use interface characteristics. The summary of evaluating each one of standards has been presented separately in the below table:

Evaluation of child-favoring and use interface characteristics in the educational software for children.

Table 2: Frequency distribution of ease to use standards and educational aspects in educational software for children

Row	Standards	Ancient literature		Religious teachings		Poem-reading		Storytelling		Scientific and historic trainings		Iranian proverbs		Traditional games	
		Frequency		Frequency		Frequency		Frequency		Frequency		Frequency		Frequency	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	Can the child work with software without having any significant skill (introduction to computer)?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
2	Can the child use the software without needing the others' help?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
3	Use of software requires any reading and writing literacy?	12	18	22	0	2	12	9	4	8	2	4	3	2	2
4	In the event of positive answer to the above question, may the new-literate child use it?	23	7	22	0	14	0	13	0	7	3	6	1	3	1
5	Are the menus at the first page accessible easily and quickly?	29	1	22	0	14	0	13	0	9	1	6	1	3	1
6	Are the menus on the page understandable?	29	1	22	0	14	0	13	0	9	1	6	1	3	1
7	Has the child any control on the monitor?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
8	Is the software installed easily?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
9	Is there any adequate guide for software installment?	18	12	1	21	7	7	11	2	9	1	7	0	2	2
10	Is it installed and connected to the printer easily?	6	24	0	22	2	12	7	6	5	5	0	7	0	4
11	Are the commands used in software revisable?	0	30	0	22	0	14	6	7	0	10	3	4	0	4
12	Is the entry to and exit from each part of software easy?	27	3	22	0	14	0	12	1	10	0	7	0	4	0
13	May the child resize the images?	7	23	1	21	3	11	1	12	2	8	2	5	1	3
14	Are the error messages delivered in suitable situations?	16	14	2	20	9	5	9	4	2	8	5	2	2	2
15	Have the letters of information texts on the desktop a good size?	20	10	22	0	14	0	13	0	7	3	7	0	4	0
16	Does the graphic design (animation) of software conform to the educational attributes and goals?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
17	Are the music and poems of software understandable?	28	2	22	0	13	1	13	0	9	1	7	0	4	0
18	Are the educational contexts communicative and intelligible?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
19	Is the software's purpose adapted to the educational policies?	30	0	22	0	13	1	13	0	10	0	7	0	4	0
20	Do the software elements conform to the kid's experience?	29	1	22	0	14	0	13	0	10	0	7	0	4	0
21	Is the title of software interesting and attractive?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
22	Has been the software designed proportional to the kid gender?	0	30	0	22	0	14	3	10	1	9	1	6	0	4
23	Has the software considered the moral topics?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
24	Has the software effective content?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
25	Is the graphic content (animation) attractive and understandable for the kid?	30	0	22	0	14	0	13	0	10	0	7	0	4	0

26	Is the software entertaining, in addition to the educational factors?	29	1	22	0	14	0	13	0	10	0	7	0	4	0
27	Has been the software designed for an extensive range of audiences?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
Total frequencies		644	166	466	128	302	76	305	46	218	52	159	30	85	23
Frequencies rate		79.5	20.5	78.45	21.55	79.89	20.11	86.89	13.11	80.74	19.26	84.62	15.88	78.7	21.3
Sum total of frequencies				2179								521			
Sum total rate of frequencies				80.7								19.3			

The summary of table 2 shows that standards 1, 2, 7, 8, 16, 18, 21, 23-25 and 27 have been observed in 100% of soft wares.

Standards 3,4,5,6,9,12,15,19,20 and 26 have been observed in more than half of soft wares.

Standards 10, 11, 13 and 22 have been observed in less than 50% of soft wares.

Whereas 27 different standards have been assumed for ease to use, use and educational factors in the educational soft wares for children in 100 soft wares altogether 2700 standards have been studied for total soft wares. Out of 2700 standards, 2179 standards for ease to use and educational factors have been observed in children' educational software that includes 80.7% of total soft wares (Iranian ancient literature 79.5%, religious teachings 78.45%, poem-reading 79.89%, storytelling and narrative 86.89%, scientific and historic trainings 80.74%, Iranian proverbs 84.12% and traditional games 78.70%), thus it is concluded that educational soft wares for kids have appropriate status in ease to use and educational factors.

Assessment of child-favoring standards and use interface characteristics in the educational soft wares for children.

Table 3: Frequency distribution related to child-favoring standards and use interface characteristics in educational soft wares for children`

Row	Standards	Ancient literature		Religious teachings		Poem-reading		Storytelling		Scientific and historic trainings		Iranian proverbs		Traditional games	
		Frequency		Frequency		Frequency		Frequency		Frequency		Frequency		Frequency	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	Have the children tendency to reuse of software?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
2	Hitting the keyword (simultaneous pressing the keys) by the children stops the program?	0	30	0	22	0	14	0	13	0	10	0	7	0	4
3	When the children presses one of keyword keys for a long time, is a command sent to the computer?	29	1	22	0	14	0	13	0	10	0	7	0	4	0
4	Different parts of software may be printed?	7	23	1	21	3	11	6	7	5	5	0	7	0	4
5	Are error messages appeared while running the program?	8	22	0	22	4	10	7	6	2	8	1	6	0	4
6	Are the icons installed on each page appeared through moving the mouse cursor?	22	8	22	0	13	1	13	0	4	6	6	1	3	1
7	Is the data density on a monitor adequate?	30	0	22	0	14	0	13	0	8	2	7	0	4	0
8	May the children access to the program branches and stages conveniently?	30	0	22	0	14	0	13	0	8	2	6	1	3	1
9	Return to the previous stage is possible in software?	29	1	22	0	14	0	13	0	10	0	7	0	4	0
10	Have suitable and light colors used in the backgrounds?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
11	Has each page the varied shape and coloring?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
12	Does the graphic content (animation) of software conform to the images and sounds?	29	1	22	0	13	1	13	0	7	3	7	0	4	0
13	Is the graphic design (animation) of pages appropriate?	29	1	22	0	13	1	13	0	10	0	7	0	4	0
14	Have been varied and unrepeated designs used in software?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
15	Has the software audio options?	28	2	22	0	12	2	13	0	9	1	7	0	4	0

16	May the child set the audio options of software favorably?	11	19	4	18	3	11	7	6	4	6	3	4	2	2
17	Can the children select each stage?	29	1	22	0	14	0	13	0	9	1	6	1	3	1
18	Has been the software designed as intelligent?	4	26	0	22	9	5	4	9	2	8	4	3	0	4
19	May the children interact and affect the software (the kid changes the stages favorably)?	1	29	0	22	2	12	4	9	0	10	4	3	0	4
20	Does the software show a rapid, clear and suitable response to the children performance?	11	19	2	20	9	5	6	7	2	8	6	1	1	3
21	Has the software capability to store the children's record of use in the different time periods?	0	30	0	22	0	14	5	8	1	9	1	6	0	4
22	Has the software capability of presenting user name and password for each children?	0	30	0	22	0	14	3	10	0	10	3	4	0	4
23	May the instructors and parents connect to the software producing website easily and explain their ideas in this relation?	0	30	0	22	1	13	0	13	0	10	0	7	0	4
24	Is the software favored by children?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
25	Is there any specified title at the top or bottom of each page for displaying the information content?	17	13	16	6	2	12	5	8	6	4	4	3	1	3
26	May the children access to the specialized files of software?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
27	Is the software usable in school or at home?	30	0	22	0	14	0	13	0	9	1	6	1	2	2
28	Is the software price proportional to its content?	30	0	22	0	14	0	13	0	10	0	7	0	4	0
Total frequencies		554	284	397	219	280	112	269	95	176	104	141	55	67	45
Frequencies rate		65.95	34.05	64.44	35.56	71.42	28.58	73.5	26.5	62.85	37.3	71.93	28.07	59.82	40.18
Sum total of frequencies						1884				916					
Sum total rate of frequencies						67.28				32.72					

General results obtained from assessment of child-favoring standards and use interface characteristics in the educational software for children as per table 2-2 indicate that standards 1, 10, 11, 14, 24, 26 and 28 have been observed in 100% of soft wares. Standards 3-6-9, 12, 13, 15, 17 and 27 have been observed in more than half of software. Standard 25 has been observed in half of soft wares. As well as, standards 4, 5, 16, 18-23 and 25 have been observed in less than half of soft wares and standard 2 has not been observed in any soft wares.

Sum total of frequencies considers the value of observing child-favoring indices and use interface characteristics in all 100 soft wares. Whereas 28 different standards have been allocated for evaluation of 100 soft wares, altogether 2800 standards have been assumed for total software. As it is observed out of 2800 standards, 1884 items thereof have been observed by educational software for children (Iranian ancient literature 65.95%, religious teachings 64.44%, poem-reading 71.42%, storytelling and narrative 73.5%, scientific and historic trainings 62.85%, Iranian proverbs 71.93% and traditional games 59.82%), that includes 67.28% of total child-favoring and use interface characteristics. Thus it is concluded that design indices of educational soft wares for children have relatively appropriate status.

The summary of this assessment shows that the manufacturers of educational soft wares for children signify the ease to use and educational factors more than storage and information retrieval, child-favoring and use interface characteristics. Whilst, Ghorbani (2007) has concluded that databases of Iranian Studies have appropriate status in design standards.

The importance of design in the educational soft wares for children is cleared in the study applied by Rich (2004) under title of "design attributes of educational computer software for optimizing girls' participation in educational game playing". He explained the girls' non-participation in the educational games of science courses is due to inappropriate design of soft wares and concluded that if soft wares designs are provided in consideration of girls' gender, their participation in this context will be increased.

Kazançi & Okan (2009) in a study titled "evaluating English language teaching soft wares for children: education or entertainment or both?" Emphasized on the significance of entertainment in the educational soft wares and explain that if various designs are used in these soft wares, these resources are selected more by the teachers and parents.

Conclusion

The summary of this study indicates that 47.5% of educational soft wares for children have applied the storage and information retrieval standards. Comparison between these results and findings of previous researches indicated that multimedia databases manufacturing process in our country has not still the appropriate status in observance of storage and information retrieval indices.

Supporting the textual data, audio and video files and relationship between audio and video files have been observed in more than half of soft wares. These standards are significant because if for instance a child without reading and writing literacy may access to the required option by audio and video files placed on the menus.

Data updating is a standard that observed in plenty of foreign soft wares and by clicking on this icon, its new version may be accessed via website easily, whilst, in none of evaluated soft wares, this standard has not been observed, and the manufacturers produce its new version by spending a lot of time and cost. The experience has proved that no significant difference exists between different versions; therefore a few people tend to purchase them.

Also, the obtained results indicate that 80.7% of soft wares have observed the ease to use and educational factors and 67.28% of soft wares observed the child-favoring and use interface characteristics standards. Altogether, 73.87% of soft wares have observed the design standards of soft wares. Most of manufacturers signify the design of soft wares because varied designs are attracted by the audiences more than the others. The capability of saving the history of children's use in the different time periods is assumed as the most important factors of soft wares design and only 7% of soft wares applies this factor. This factor is important because the child by means of the savings may access each stage rapidly and not to test the different options for finding its respective data.

The soft wares design based on the children gender is very important as well but only 5% of soft wares consider it. In plenty of soft wares including the religious teachings, the role of boys have been more highlighted than the girls and in some cases, the girls have no role in the soft wares at all.

To test the research hypotheses, considering that the entire population has been assessed, descriptive statistics have been used. In first hypothesis test, whereas 32% of soft wares observed the attributes and lower than 50 software observed 60% of storage and information retrieval standard, first hypothesis was accepted. In second hypothesis, whereas 97% of soft wares observed the attributes and more than 50 soft wares have observed 60% of design standards, this hypothesis was rejected.

According to the summary of this study, the following items are recommended:

- 1- The people involved in children affairs in Iran such as " Child Book Council and The Center for Intellectual Development of Children" to produce such softwares for different age ranges.*
- 2- Providing a standard for manufacturing such softwares so that make them obliged to observe it.*
- 3- The children and schools' libraries can collect these resources and provide to the extensive range of children and so invite them to the libraries.*

- 4- *Iranian National Library as the compiler and protector of written and unwritten heritage of our country has taken measure for collection of these resources recently according to Deposit Law. It is suggested to transfer these resources to the children library and so familiarize the researchers of children context with this software, as well as familiarize the children with the use of these software that is a collection for introducing and training the Iranian original and ancient culture and literature that is the heritage of our ancestors.*

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