

## EVALUATING BEHAVIOUR OF KINDERGARTEN TEACHERS IN CASE OF EARTHQUAKE: CASE STUDY OF TEHRAN KINDERGARTENS

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Tehran with 8.5 million population is considered as one of the most vulnerable cities in Iran in case of earthquakes. Existing of 566 kindergartens with 4639 teachers crucially draw attentions on earthquake preparedness among the kindergarten and pre-elementary school teachers.

Training about earthquake and earthquake safety culture in Iran, has been established since 1989 with the aim of spreading the earthquake safety culture in society and enhancing awareness and knowledge of people and promoting their preparedness.

This program urges training, awareness and readiness of children, teenagers and youngsters in improving their general culture about earthquake safety in future. For achieving these goals and upgrading children's knowledge level in different grades of kindergarten and pre-elementary schools, different methods and instruments are used such as: playing music, performing theaters and plays or narrating stories and reciting poems related to earthquake.

"Guideline on Earthquake and Safety for Kindergarten Teachers" is a book that was published for the first time in 2004 under the title of Conceptual teaching of earthquake and safety issues. Furthermore training classes were held face to face to teach children about what the earthquake is and how should we mitigate the probable damages and how to take related precautions about it.

In order to gather information about the knowledge of the teachers and their probable behavior during earthquake, we have conducted a practical research in city of Tehran. This survey is done on 288 people out of 1055 trainers who are working in district no. 15 out of 22 districts of Tehran. Data is collected through interviewing and issuing questionnaires among them. Due to the vastness of Tehran which is spread in a very wide area random selected number of kindergartens were chosen. Answer collections are done by eight people as an interviewer during two month and a half.

Research questionnaires include three different sections that are about:

- 1) Effective parameters on teachers' awareness (knowledge, academic study, geographical situation and work experience).
- 2) Teachers knowledge about earthquake and their teaching methodology for children.
- 3) Teacher's readiness, awareness and their behavior in earthquake happenings.

After collecting data through chi square tests, variety of analysis are done using descriptive and comprehensive statistics. Analytical results show that most of the teachers in Tehran kindergartens are young. %51 of them are below 30 years old and %62 have less than 5 years of work experiences. It's important that most of them have academic education, among which %51 have B.S. and %3.5 have M.S, In addition, %31 of kindergartens have less than 5 years of work experiences.

State welfare organization has divided cosmopolitan society of Tehran into 3 different geographical zones: Shemiranat district, Main Tehran district, (Including East, West and central area) Southern Tehran and Rey district.

For better understanding of teacher's behavior when earthquake happens when they are indoor and outdoor, questions 12 and 13 show the way they behave during an earthquake. Results are taken into consideration and found out as below:

There is no meaningful relation between different area's behaviors that means variety of geographical area is not an influential parameter in behavior. Probably it is because of equal training method about earthquake which is currently being done so it ends in the same responds and results. Evaluating the survey data is shown in Figure 1. It reveals that teachers viewpoints are suitable and only %1 say that earthquakes are man made phenomenon.

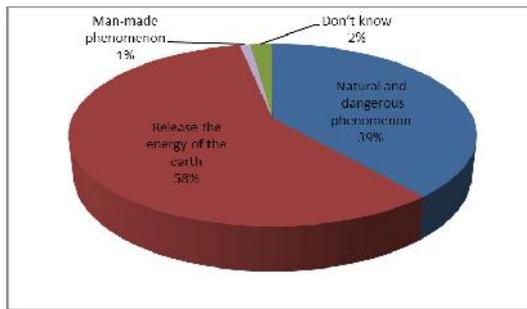


Figure 1. Teacher's knowledge on earthquake

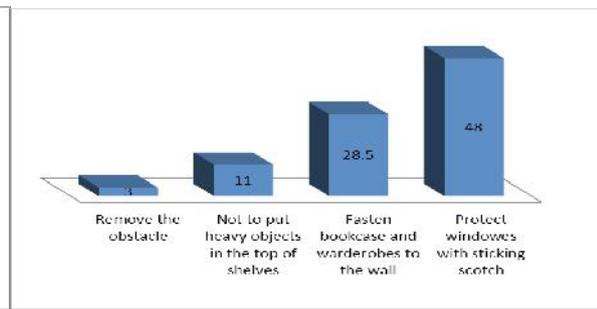


Figure 2. Retrofitting of non-structural elements

Out of 288 teachers, %75 of them stated that for reducing earthquake damages, retrofitting of non-structural elements has been implemented in their schools. The answers results are categorized into 4 groups and %48 of answers are about applying adhesive plastic or paper to window panes.

Obtained data is evaluated through 5\_level likert scale for better understanding of probable teacher's behavior indoor and outdoor when an earthquake happens. Responses are divided as "Unconscious", "Almost unconscious", "Partly aware", "Almost aware", and "completely aware". From these groups, only %4 of teachers are almost aware of proper reaction in an earthquake both indoors and outdoors. %19.4 are unconscious about how to behave in an earthquake and out of this survey we come to this conclusion that %15.6 of them keep cool in such an event.

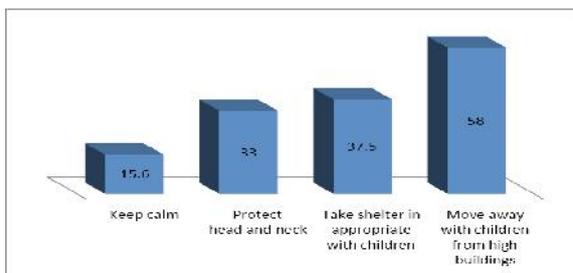


Figure 3. Open area behavior

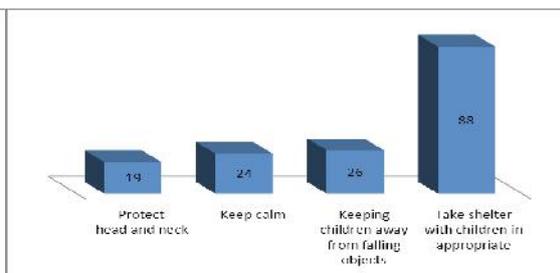


Figure 4. Closed area behavior

Research analysis show that %10 and %3 of respectively coaches and teachers are almost aware and completely aware of suitable behavior during an earthquake in closed areas. The variable of sheltering in a safe place, in which children are present, shows that %88 is selected by teachers as shown in Figure 4.

In general, we should say that teachers are much more aware of how to react in closed areas than open areas. Since all coaches and trainers have been holding their classes indoors, their knowledge about question 13 (closed area) is more and even their behavior is better than question 12 (open area). According to different elements such as trainings programs, given instruction manuals, brochures and Drill performed in all kindergartens, we have expected acceptable results in schools and kindergartens but since coaches didn't have practical and visual experience of earthquake, this lack of experience can affect their probable behavior. Another point is that the constructions of schools and kindergartens have windows and panes which are other factors of worryness of teachers in earthquake. So most of them stick adhesive plastics or papers onto the panes and glasses in earthquake.

It seems teachers have had lack of experience and behavior about earthquake in open areas (out doors). They have known more about safety points in closed areas, because they themselves have been trained indoors. Keeping cool and calm during an earthquake is the main point for emergency and critical case managers and it has proportional relation to their awareness. It is obvious that we should work much more on this issue.

## REFERENCES

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