The Extraordinary Role of Schools in the Disaster: Caused by the Great Earthquake and Tsunami on 3/11 2011

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The Extraordinary Role of Schools in the Disaster: Caused by the Great Earthquake and Tsunami on 3/11 2011

*TABATA Taketo

Abstract

This paper aims at the description of the extraordinary role of Japanese schools in the disaster caused by the great earthquake and tsunami on 3/11 2011. The description is based on quantitative and qualitative data, i.e. statistics, documents written by suffered teachers and my hearing research. First the general data on the earthquake, tsunami and death toll is shown. Those express the scale and quality of the disaster 3/11 and the important role of Japanese schools in the huge disaster. Secondly the type of the evacuation from the tsunami is divided and some failed/succeeded cases are reported. Taken into consideration the documents and interview data from evacuees, the reasonable simple conclusion is led, the more awareness a person has on the crisis at hand and the more prepared one has against disasters, the higher his chances of survival are. Thirdly it is shown that schools in an inland area played an important role of the living shelter and that the role for evacuees came into conflict with the role of the school for children. Fourthly various serious hardships of children are reported through the statistics of orphans and 3 misery cases. Teachers have been taking care of the children. From many documents and my interview and observation we can point out two helpful ways in caring by teachers: 1) medical-oriented and 2) educational/cultural-oriented care. The latter is realized by: a) being with friends at school, b) a home-like and safe atmosphere at school, c) a rhythmic and regular timetable at school and d) annual school events.

Key words: Disaster
Death
Loss
Evacuation
Shelter
Care
School Event

1. General Data on the Earthquake, Tsunami and Death Toll

Thousands of lives were lost when the huge tsunami hit East Japan after a magnitude 9.0 earthquake struck the country on 11th March, 2011. The death toll rose to 18,480\(^1\) including those who went missing during the Great East Japan Earthquake. Out of this huge number, 593 of the lives lost were those of

* Department of School Education, Miyagi University of Education
1 Fire and Disaster Management Agency. 総務省消防庁「平成23年（2011年）東北地方太平洋沖地震（東日本大震災）について（第150報）」平成26年 9月10日発表
students, including small children\(^2\). In Miyagi prefecture, a total of 430 students died — they were students from kindergarten, elementary school, junior high school, high school and from special support school\(^3\). Focusing on students from the public elementary and public junior high schools in Miyagi prefecture alone, a total of 261 children lost their lives in the tsunami.

The tsunami struck about 30 or 50 minutes later after the earthquake. The second wave was extremely high in several coasts. The highest tsunami rose to an incredible height of up to 20.0m (65.6ft) — for example in the towns of Onagawa and Minamisanriku in Miyagi prefecture. Truth of the matters is, a 0.5 meter-high tsunami is more than enough to claim lives, and how much more a 20.0-meter high tsunami. Making the situation worse were the vehicles floating and catching fire on 0.6m tsunami according to a report.

2. Types of Evacuations from the Tsunami

Were the students able to escape from the wrath of dangerous waves? Which number was larger — those who were saved or those who were swallowed by the giant tsunami? What is one’s chance of survived in the midst of the tsunami? Has the school saved students or not?

We will take a brief look at the situation of the students, when the earthquake and the tsunami struck.

The earthquake attacked east Japan at 2:46 P.M. on Friday March 11th. At 2:46 P.M. on Friday almost all children in the elementary school were at the school, but almost all students in the junior high school and high school were at home or in the town after the graduation and the closing ceremony of the school. Therefore teachers could guide children to refuge from the tsunami in the elementary school, but on the other hand teachers in the junior high school and the high school couldn’t. In addition many parents went to the elementary school soon after the earthquake and took back their children from the teacher. Thus the way of the evacuation of children was divided into 3 types. Type A: the evacuation guided by the teacher, type B: guided by the parent and type C: by themselves.

Consequently, the evacuation of type B and C caused heavy casualties. Thus, type A was relatively successful. Statistically speaking, focusing on the public elementary schools and the public junior high schools in Miyagi prefecture, 186 out of 261 students (71.3%) were victims of types B and C while 75 out of 261 students (28.7%) were victims of type A\(^4\). 74 out of 75 victims came from the same school —Okawa elementary school in Ishinomaki City. It is called “The Tragedy of Okawa Elementary School”.

3. A Disastrous Case: Okawa Elementary School

At 3:33 P.M. over 40 minutes after the earthquake, teachers and students in Okawa Elementary School were still on the schoolyard. The principal was out on that day so the vice-principal was the school leader at that time. He and some teachers discussed with some residents whether or not they should evacuate. Some teachers and children were aware that the tsunami would come and the school building would not be

\(^{2}\) 警察庁（平成23年（2011年）東北地方太平洋沖地震の被害状況と警察措置）平成27年2月10日発表

\(^{3}\) Education in Miyagi Prefecture, 宮城県教育委員会発表の「東日本大震災に伴う公立学校の被害状況等について」平成26年12月22日発表、「私立学校関連被害状況（私立幼稚園）」平成21年8月19日発表、「東日本大震災 個人学校被害状況（小学校・中学校）」、ならびに「東日本大震災 私立学校被害状況（高校）」をもとに田端が算出した。

\(^{4}\) 宮城県教育職員組合2014『子どもの「いのち」を守るために—東日本大震災を心に刻む—』pp.37-38、p.45を参照して田端が算算
safe. But they couldn’t make up their minds for over 40 minutes. If they have decided to go up the mountain nearby the schoolyard, many students and teachers would have survived. However, they made the other decision to go up the higher place nearby the bridge (2 to 3 m high elevation). The decision came at 3:33 P.M.. When 76 students, 11 teachers and some residents started to go to the place, the dreadful 10.0 m (32.8 ft) tsunami struck them at 3:37 P.M.. Only 5 people (4 students and 1 teacher) survived⁶.

4. Other Saved Cases

On the contrary, in other schools, teachers rescued many students, parents and people in the neighborhood. I did my own calculation of the data of some schools where teachers with neighbors were saved from the tsunami (cf., Table 1⁷).

<table>
<thead>
<tr>
<th>Name of School</th>
<th>Height of Tsunami</th>
<th>Number of People Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nakahama e.s.</td>
<td>8.5m</td>
<td>90 (M)</td>
</tr>
<tr>
<td>Yamashita 2 e.s.</td>
<td>8.0m</td>
<td>222 (S)</td>
</tr>
<tr>
<td>Arahama e.s.</td>
<td>7.0m</td>
<td>100(S)/320(M)</td>
</tr>
<tr>
<td>Nakano e.s.</td>
<td>7.0m</td>
<td>550(M)</td>
</tr>
<tr>
<td>Naruse 2 j.h.</td>
<td>6.0m</td>
<td>8(S)/23(M)</td>
</tr>
<tr>
<td>Hamaich e.a.</td>
<td>5.0m</td>
<td>167(S)/350(M)</td>
</tr>
<tr>
<td>Kadonosaki e.s.</td>
<td>2.0m on fire</td>
<td>100(M)</td>
</tr>
<tr>
<td>Ogatsu e.s.</td>
<td>10.0m</td>
<td>40-50(S)</td>
</tr>
<tr>
<td>Yoshitama</td>
<td>11.0m</td>
<td>5(S)/15(M)</td>
</tr>
<tr>
<td>Tokura e.s.</td>
<td>23.0m</td>
<td>91(S)</td>
</tr>
<tr>
<td>Kesennumakoyo h.s.</td>
<td>16.0m</td>
<td>170(S)</td>
</tr>
</tbody>
</table>

Sum. 1,961(M)

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⁵ 大川小学校事故検査委員会2014『大川小学校事故検査報告書』.p.1, pp.63-65 参照
⁶ 大川小学校事故検査委員会. p.1参照
なお、荒浜小は田畑健人2012『学校を災害が襲うとき』（春秋社）、p.75より。中野小は中野小学校「東日本大震災と教育現場 平成23年4月～平成24年3月」（宮城教育大学教育復興支援センター）、p.1より。吉浜小は日本安全教育学会2012『東日本大震災における学校等の被害と対応に関するアリング調査 記録集(増補第2版)』、p.34。門脇小は宮城県教職員組合、前掲、p.206より。雄勝小は『河北新報』（2013年3月30日）より。
The data on Table 1 do not cover all the schools, which rescued students and neighbors from the tsunami. The table shows only a partial data. There are at least 5 other schools in Miyagi prefecture where teachers saved students and neighbors from over 4.0m-high tsunami. But the number of survivors was unclear (e.g. Nogyo h.s., Higashirokugo e.s., Minato 2 e.s., Iashinomakijoshi h. s. and Watanoha j.h. etc.) Therefore, the number of the people saved by the teachers at schools was more than the sum shown on Table 1. In spite of these limitations, the data on Table 1 is enough to let us know the fact that teachers rescued many students and neighbors at schools.

Unfortunately, teachers couldn’t save the lives of 186 students who were not at school during that time. The loss of students was such a great pity for teachers that even up to now they couldn’t forget the tragedy and that couldn’t say, “We rescued many students”. However, we should acknowledge the fact that Japanese schools are relatively safe and that the Japanese teachers are good at decision-making especially in serious cases such as disasters.

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8 宮城県教育委員会（施設課）より許可を得て転載
9 仙台市2013「東日本大震災 震災記録誌」より転載
10 注10と同じ
11 麻生川政「東日本大震災における戸倉小学校の避難について—児童の引き渡しが終了するまでの避難について—」（宮城県教育委員会「東日本大震災に係る教育関連記録集」所収）, p.1より転載
5. Dividing Line between the Death and Alive

What was the dividing line between the dead and alive in the midst of the tsunami? It is a very difficult question and it could be answered on a case-by-case situation. The height of the tsunami varies based on the natural features. We know that students and teachers could not have escaped death if the tsunami had been 2.0 m higher or that the school building had been 2.0 m lower. I must say that the survivors were fortunate in a way. The great historian and political philosopher Niccolo Machiavelli (1469-1527) said that fortune was the arbiter of one-half of their (people) actions, but she still leaves them to direct the other half. If Machiavelli is right, then we can still think of possibilities to direct the other half of the fortune. Taken into consideration the documents and interview data from the evacuees, it is reasonable to suppose that the more awareness and consciousness a person has on the crisis at hand and the more prepared one has against disasters, the higher his chances of survival exist.

6. Schools as the Living Shelter

The Japanese schools did not only become emergency shelters but also served as living shelters where people stayed temporarily as replacement for their homes during the disaster. Since 11th March 2011, uncountable numbers of homes were unsafe to stay especially at night because horrible aftershocks struck again and again after the magnitude 9.0 earthquake. In addition, electricity, waterworks, gas line and cell phones— went out of order all at once. Besides many people could not go home since JR (Japan Railway) line and all bus lines stopped their operation due to the earthquake.

Many schools if not all in Miyagi prefecture served as shelters especially at night. 356 public elementary and junior high schools in Miyagi served as living shelters. Evacuees in schools reached to 189,312 people\(^{12}\). There were 212 schools, which accepted over 300 evacuees\(^{13}\). There were some schools, which accepted 3,000 evacuees at the same time. Table 2 shows the number of public elementary and junior high schools, which accepted evacuees ranging from 300-3,000 people in Miyagi.

<table>
<thead>
<tr>
<th>Number of Evacuees</th>
<th>Number of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,500~3,000</td>
<td>4</td>
</tr>
<tr>
<td>2,000~2,499</td>
<td>12</td>
</tr>
<tr>
<td>1,500~1,999</td>
<td>9</td>
</tr>
<tr>
<td>1,000~1,499</td>
<td>43</td>
</tr>
<tr>
<td>500~999</td>
<td>75</td>
</tr>
<tr>
<td>300~499</td>
<td>69</td>
</tr>
<tr>
<td>Sum: 212</td>
<td></td>
</tr>
</tbody>
</table>

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12 宮城県教職員組合2014,p.61
13 同上
14 同上
Can you imagine the situation in the school as the living shelter filled with 3,000 evacuees? They were short of foods, drinks and blankets. It was a cold snowy night without electricity. Some evacuees were complaining about their dissatisfaction at how teachers handle the situation. Despite teachers received the clamor and complaints from the evacuees, they managed the shelter and with the cooperation of the volunteers they were able to take care of the children, parents and other evacuees. There were many injured persons in the tsunami-hit areas. Unfortunately, they couldn’t receive any medical attention. In schools, only health education teachers referred to, as “school nurse” took good care of injured people. In every school, there was only one school nurse available and it was a struggle for them to help those injured persons. All of them were quoted as saying “the school as a refuge shelter was like a field hospital.”

What will happen if schools will serve as people’s shelter for a long time? Actually some school served as a shelter for a month, some for 3 months, others for 5 months and even for 7 months at the most16. Two weeks after the Great East Japan Earthquake and Tsunami, almost all schools reopened and since some areas in schools were still occupied by people, the space where students learn had been very limited. Moreover some

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15 仙台市2013より転載
16 同上
17 同上
18 国立教育政策研究所2012『震災からの教育復興』��要, p.14参照
school buildings were destroyed by the tsunami and became out of use. Many students and teachers lost their classrooms and so they moved to other schools and held their classes there. In some schools, temporary houses were built on the schoolyard. Thus, the place for doing exercise or sport activities of students had been very limited too. Students and teachers endured such an adversity for a long time, and even up to now they still bear such difficult situation. According to the report by committee on Education in Miyagi Prefecture as of 25th November 2014, the number of temporary schools has become 7 (5 e.s. and 2 j.h.) while the number of rented schools has become 8 (7 e.s and 1 j.h.). The damage and hardship caused by the Great East Japan Earthquake and Tsunami are not over yet. Even up to now, many teachers and students are still enduring them.

7. Hardships of Children

Now I would like to focus on the hardship of children (including students) who suffered from the disaster. They have been facing various serious problems, which is very difficult for us to imagine. Some children lost their parents. The number of orphans reached to 1,567\(^{20}\). Orphans who lost all their parents reached to 240 and those who lost one parent was 1,327\(^{21}\). Some lost their loved ones such as grandmothers, grandfathers, brothers, sisters, relatives, friends and so on. In addition, they also lost important things such as their houses, beds, clothes, pets, photo albums, books, stationery, toys, teddy bears, video games—etc.—All of which were so dear for them. The children have been in deep grief. A few accounts that describe the children’s situation shared to me by the teachers are as follows\(^{21}\).

Situation 1: A high school student and her family—including his father, mother, 2 siblings and grandmother were driving away from the tsunami. Their car was caught by the tsunami and floated on water. All of them climbed on to the roof of the car, which was rocked by the waves. The grandmother was

19 宮城県教育委員会「被災に伴い仮設校舎等を使用している小・中学校一覧」（平成26年11月25日現在）
20 仙台市2013より転載
21 同上
22 厚生労働省「東日本大震災における災害拠点病院の被害状況」（平成23年7月1日現在）p.19
23 同上
24 以下の3つの事例のうち、第一は田端2012, pp.172-173より、第二は田端のその後の聞き取りより、第三は田端2012, p.104より
thrown into the waves and her mother dived into the water to save her. The grandmother was saved but unfortunately she lost her mother. They all got saved except for her mother. During the kid’s mother’s funeral, her former homeroom teacher (at high school) was there and he saw the kid’s father was crying furiously. But the girl didn’t cry at all and she seemed so calm.

Situation 2: A junior high school student and her grandmother were swallowed up by the tsunami in their house. The waves rose higher and higher over their shoulders. The grandmother pushed up her granddaughter onto the top of the dresser. She clutched her grandmother’s hand. They both were on the verge of being washed by the waves. She called the name of her granddaughter and released her granddaughter’s hand and was swept by the waves.

Situation 3: A high school student and her younger sister accompanied by their two teachers went to the temporary mortuary to identify a body. The sister called “Mami! Mami!” in a flood of tears. Two teachers gave a handkerchief to her and they wept together. However the elder sister managed to smile and said “Don’t worry…” Behind her smile, her heart was broken.

8. Cares of Children at School

Teachers have been taking good care of the children to heal their deep sadness. There are various methods in taking care of the victims. We can point out two helpful ways in caring which many if not all teachers have been doing.

1) Cooperation with therapist. Japanese teachers have been trained and they possess basic knowledge and skills on therapy and they worked with school counselors and psychotherapists. Additionally, after the Southern Hyogo Prefecture Earthquake in 1995 the mental disorder caused by the disaster, for example PTSD (Posttraumatic Stress Disorder) and ASD (Acute Stress Disorder), had been well known in the country. Similarly, during the Great East Japan Earthquake, the teachers collaborated with school counselors and therapists in helping the children overcome their stress and trauma. Teachers suggested or encouraged children who seemed to need special treatments to talk with the school counselor or therapist. A lot of therapists came voluntarily to tsunami-hit areas from all parts of the country and helped them.

2) If we take a look at the wide range of suffering caused by the disaster, the number of children who needed psychotherapy was not as high as expected. It can be inferred that the other way of caring for children in grief has been sufficient. Student’s daily life at school has contributed a lot to enliven and inspire them. The above-mentioned method (method 1) is professional medical-oriented, while method 2 is educational-oriented (or cultural-oriented). I would like to emphasize the important role of schools in supporting and protecting the children against natural disasters. Various elements of daily school life have been helpful to children as they heal from grief and bereavement. For instance: —

a) *Being with friends at school*. Children play together and comfortably chat with friends at school. Playing and chatting are not only their “pastime” (pass-time means to kill their worrying time) but also serve as recreation or “re-creation” (i.e. time to re-create their lives or to refresh themselves). Moreover, the presence of friends while playing and chatting makes it easier for them to forget the dark and lonely realities. In addition, children sometimes share their experiences with peers or teachers. This kind of communication serves as peer counseling. “All sorrows can be borne if you put them into a story or tell a story about them” (ISAK DINESEN). By sharing their anguish with each other, children can
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bear their sorrows and that they wouldn’t feel isolated anymore.

b) A home-like and safe atmosphere at school. Hannah Arendt said, just like Otto Friedrich Bollnow, “The child requires special protection and care so that nothing destructive may happen to him from the world” 25. After the destruction caused by the tsunami, teachers reconstructed schools where four walls constituted a shield against the dangerous world. The inside of the shield is filled with a family-like and friendly atmosphere where the teachers strive to provide motherly and fatherly care and guidance to their students.

c) A rhythmic and regular timetable at school. It is obvious that irregular life (e.g. sleeping late in the morning and staying up late at night) can be detrimental to one’s health. In contrast, the rhythmic and regular timetable at school keeps children healthy and promotes their development.

d) Annual school events. Based on my observations, interviews and data analysis, it was found out that the periodical events common in all Japanese schools were adopted to address the needs of troubled children at the schools in tsunami-hit areas and encouraged them to reconstruct a world that is familiar to them. Most popular school events in Japan are athletic meetings called “Undo-kai” or variations school plays or school festivals—called “Gakugei-kai” —, “Gakushu-happyou-kai” or “Bunka-sai”. The school events gather not only parents and grandparents, but also local residents who are separated by the disaster that claimed many lives and properties. Teachers adopted the events as a tool to encourage children, parents and local residents who have suffered major losses, for example, beating Japanese drums, traditional dancing, creating plays about their hometown and flying balloons and paper planes. Children have also played a significant role in remediation and rehabilitation campaign by participating in the events that enliven teachers, parents and local residents.

Often in such schools we find that children have a great capacity to face the truth both about the past and their sadly changed future. They delight us with their cheerfulness, humor and seriousness. They show us their resilience against difficulties. They teach us what ARCHBISHOP ANTHONY BLOOM pointed out; "people are much greater and much stronger than we imagine, and when unexpected tragedy comes—we see them so often grow to a stature that is far beyond anything we imagined" 26.

（平成27年9月30日受理）