



KATARITSUGI: STORYTELLING AS A METHOD IN DISASTER RISK EDUCATION

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Abstract

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Despite broad international interest in disaster risk reduction methods and recovery processes in the direct aftermath of disasters, public interest usually declines with time passing. Hence disaster-affected municipalities are facing challenges to raise lasting awareness regarding disaster preparedness and lessons learned from past experiences. The Great East Japan Earthquake, tsunami, and nuclear disaster of 2011 are not different. Around the disaster-affected areas in Northeast Japan, disaster-related theater projects were developed to keep the memories alive, independently from first-hand accounts of the disaster survivors. It is anticipated that emotional stage performances accompanied by music make the significance of disaster risk preparedness more relatable, and thus, such theater plays could be seen as a valuable tool in disaster risk education. For these reasons, Tohoku University introduced the “Kataritsugi event” in which a renowned actress reads the stories of a group of disaster survivors on a stage accompanied by musicians. The event enjoys lasting popularity attracting about 1000 visitors every year, making it an important opportunity to raise disaster risk awareness. Nevertheless, unlike other storytelling activities common in post-disaster Japan, the accounts of the survivors are not told by them themselves in a setting of their choice, which could raise criticism regarding authenticity. In this paper, the authors and organizers of the Kataritsugi event discuss challenges and benefits regarding the organization and performance of the event. The challenges include summarizing the stories of survivors in a suitable way for larger audiences without altering them too much. Other concerns are connected to the presentation of widely debated topics such as the recovery of Fukushima Prefecture. Lastly, based on surveys conducted with visitors of the events each year, the authors evaluate the impact as a disaster risk education method. The results implicate that despite the majority of the respondents showing a high awareness regarding problems within the recovery process introduced in the Kataritsugi stories, many also stressed having learned about post-disaster struggles they did not think of before and the corresponding importance of disaster preparedness. Further, the results varied depending on the year and on the related music performances. Hence the authors argue that affect and emotions, as they are prevalent in theater performances or storytelling accompanied by music, can play a vital role in transmitting messages regarding disaster risk education. The results of this study will hopefully contribute to a better understanding of the transmission of disaster-related memories and lessons learned.



1. Introduction

The 2011 Great East Japan Earthquake, Tsunami, and Nuclear Disaster caused unprecedented casualties, loss, and damage to communities in Northeast Japan, despite the country's high investments in coastal protective measures such as levees, sea walls or flood gates. In recent years, especially sea walls have been criticized. Several scholars have stressed their presence might actually lead to a false sense of security [1,2, 3, 4]. Further, Aldrich and Sawada [5] pointed out that in the case of the Great East Japan Earthquake and Tsunami, the height of the sea walls did not relate to the number of casualties or survivors. Similar to the studies mentioned above, the authors conclude that lower death tolls may rather be linked to a higher risk awareness that led people to evacuate faster and further away, while in other areas, citizens refused to evacuate in time as they expected the sea walls to protect them.

It is now widely acknowledged that focusing on the above mentioned "hard aspects" of disaster risk reduction is not enough to reduce the number of casualties in large scale disasters. Particularly municipal governments and schools highlight soft measures such as increasing risk awareness and stressing the importance of evacuation drills. Further, remembering previous disasters is seen as key to stay alarmed about all kinds of hazards. In this context, the role of memorialization in forms of tsunami stone monuments and disaster memorials, as well as forms of disaster archives, have been discussed [6, 7]. Tsunami monuments (*tsunami hi*) are usually erected at places until where a tsunami reached and have warnings inscribed, such as "Don't build below this stone" (*kore yori shita ni ie wo tateruna*). While Aneyoshi in Miyako is often raised as a positive example of the effectiveness of tsunami monuments as nobody died there in 2011 [8], others question the reach of such monuments since many of them existed around the Tohoku coastline but have been forgotten about.

Forgetting about past disasters is seen as a problem that needs to be tackled in order to save the lives of those at risk. Hence, the Japanese government, prefectures, and municipalities work on several ways to preserve the lessons learned. Disaster Archives are one way of preservation. From 2011, more than a hundred analog and more than 50 digital archives about the Northeast Japan disasters were created [9]. This shows a strong commitment regarding preservation on several levels from small towns to the national government. However, it has been pointed out that usability, access, and awareness of these archives have been problematic [10]. In other words, although a huge amount of data and archives exist, they remain unknown to a larger public. The passive presentations and preservation of disaster-related information have faced difficulties in effectively being recognized in disaster risk education. Like disaster archives, a large number of museums presenting facts and lessons learned from the Great East Japan Earthquake came into being. Exhibits at museums can be understood as a more attractive way of educating and preserving past experiences, as they may use a variation of media including video and audio material, pictures and touch screens that speak to several senses of the visitors. Yet again, some of the organizers described their fear of a fading interest in the disaster, especially since not many people might travel far to see exhibits on such a dark matter in a museum [10].

Storytelling by disaster survivors, so-called *kataribe*, is seen as a more engaging way to pass on lessons learned. *Kataribe* are active all over Japan. In Hiroshima and Nagasaki, survivors talk about the horrors of the atomic bombings; in Minamata, affected people reflect on their struggles and stigmatization linked to the mercury disease of the same name; and in Kobe, eyewitnesses guide interested visitors through the city to share their experiences with the Hanshin-Awaji Earthquake and to show how the city has recovered from the devastating event in 1995. After the 2011 disasters as well, eyewitnesses began guiding people through the disaster affected areas. In some cases, survivors would use additional tools or more fixed narrations to tell their stories, such as theater forms like the Japanese Paper Theater Kamishibai [11]. Some cities and hotels employed them as guides in more structural forms that allowed visitors to learn about the current state of recovery and how to protect lives from natural hazards [12]. Many of the participants of such tours mentioned a strong learning effect because of the emotions involved when listening to the experiences of directly affected people [13]. The combination of first-hand accounts and emotions is seen as a promising way to talk about



disasters, and it is also for this reason that museums in Japan ask *kataribe* guides to talk to the visitors. Often people are more interested in vivid first-hand accounts than in the passive presentation of data, facts, and advice. However, personal accounts are not always viewed as appropriate for disaster risk education. Shibayama [14], for instance, sees them as problematic. According to him, mainly dramatic escapes were attracting attention. This way, listeners might remember how people barely survived the tsunami because they clung on a tree. Yet, most people who took such an action died because they evacuated too late. Although the memories of survivors who evacuated right after the earthquake without seeing the tsunami might be a more appropriate role model in disaster education, such survivor stories are often neglected.

The authors of this paper argue that disaster-related theater-like events can be a way to combine the provision of information on the current state of recovery and concrete advice on how to behave in case of a disaster with an emotional experience that may raise interest in disaster education. In order to reach a larger audience and provide knowledge about the lessons learned in the aftermath of the Great East Japan Earthquake the Archive Section of Tohoku University organizes the “Kataritsugi: Seven people’s memories” annually either in the prefecture of Fukushima, Miyagi, or Iwate, which have been hit the most from the 2011 disasters. During the Kataritsugi, a renowned actress reads seven short stories based on personal experiences of survivors. Local musicians, and photographs or hand-painted pictures inspired by the disaster accompany the event. To evaluate whether theater-like events are effective in disaster risk education, surveys have been conducted with visitors from 2013 until 2019. This paper will present an analysis of the event and the survey to discuss the possibilities of storytelling as a tool in disaster risk education.

2. Tohoku University’s Kataritsugi

Universities have immediately recognized the need to memorize the experiences of the people affected by the Great East Japan Earthquake and pass on lessons learned. Extending on an existing event in Kobe, the Disaster Digital Archive Section of the International Research Institute of Disaster Science (IRIDeS), Tohoku University, introduced the “Kataritsugi: Seven people’s memories” (in Japanese: *Kataritsugi. Rōdoku to ongaku no yūbe* [Kataritsugi: An evening of reading and music]). During the event, Keiko Takeshita, a famous Japanese voice actress, reads the stories of seven disaster survivors from the Tohoku region on a stage. Most of the years, a huge canvas painted by Hiroshige Kagawa decorates the wall behind her, featuring a scene from a disaster-affected area. Examples include the well-known stranded ship in Ofunato, the red steel frame of the Disaster Management Building of Minamisanriku [Fig. 3], or plastic bags containing radioactive soil in a beautiful landscape of Fukushima Prefecture. The public reading is accompanied by various music performances every year, focusing on local musicians. The range of performances reaches from school choirs to classical piano, violin, marimba, or jazz and is played during the readings and more prominently in between the readings and during the breaks. The event takes place in another disaster-affected city in the Tohoku (Northeast Japan) region every year since 2013. The event attracts about 700 to 1000 visitors each year.



Figure 1 Visitors of the 2013 Kataritsugi



Figure 2 Photographs used in the background of the stage in 2013



Figure 3 A picture inspired by the Disaster Management Building in Minamisanriku (by Kagawa, 2018)



Figure 4 Actress Keiko Takeshita reading the stories



Figure 5 Musicians accompanying the reading (2018)



2.1 The organization of the Kataritsugi

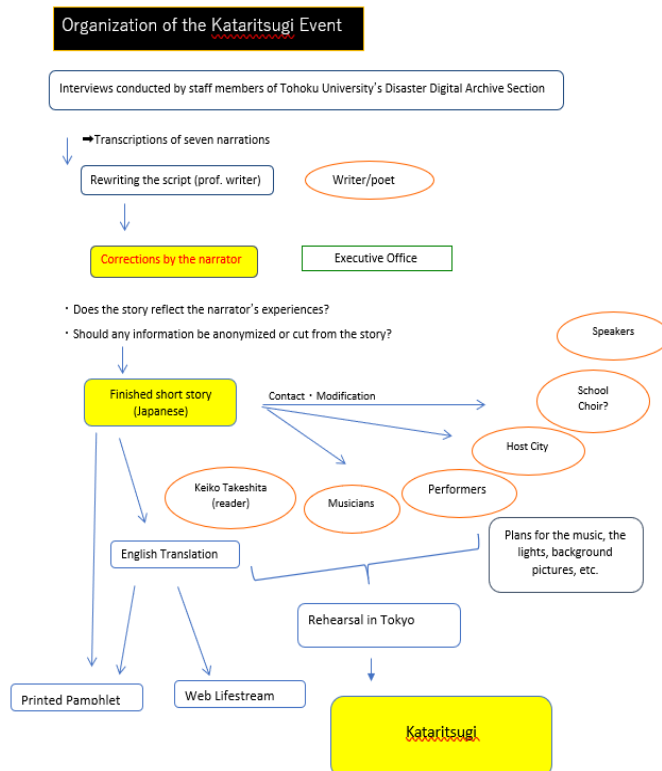
The Kataritsugi is mainly organized by Madoka Ono, a researcher at the Disaster Digital Archive of IRIDeS (International Research Institute of Disaster Science). In the very beginning, Ono travels through Northeast Japan and listens to various people affected by the 3.11 disasters. Although the first interviewees were



introduced to her by university professors, she extended her network and began interviewing people introduced by her acquaintances. The loosely guided interviews are recorded and transcribed.

As described in table 1, the transcribed narratives are then sent to a professional writer, who turns the transcripts into short stories of between 1500 and 2000 Japanese words. The short stories are handed to the narrators who give feedback and may ask for revisions. Additionally, the narrator may ask to anonymize or delete certain information. This process is repeated several times until the narrator is satisfied with his short story and is necessary to assure that the story reflects the will of the narrator. Since 2013, the seven stories are translated into English. The English version is not only used to hand out at the event but also for subtitles if the internet live-broadcast. Pamphlets of both versions are handed out at the event.

Table 1 – The Organization of the Kataritsugi Event (by Ono)



Once the short stories are finished, they are sent to the actress Keiko Takeshita, the host city, the musicians, and other people involved. The musicians choose the songs for their performances in relation to the stories read on stage. For instance, the Jazz quartet Nayuki Sachio that performed at the Kataritsugi in Sendai in 2019, played a song by Thelonious Monk to a story describing a tea place run by Buddhist monks so that survivors could meet there and speak about their experiences and problems. Once the performances are decided upon, rehearsals commence in Tokyo. The event itself starts with several speeches by the mayor of the host city, a representative of the university, and a keynote speaker who is often from an academic background. The event itself takes place in March in a different city within one of the most severely affected prefectures of Fukushima, Miyagi, or Iwate, each year.



2.2 The stories

During the years, the focus of the stories changed little by little, but what all of them have in common is that they begin with a description of the day of the Great East Japan Earthquake and what had happened to the narrators in the direct aftermath. The stories of the first years of the event mainly stayed with such descriptions and were also used to raise awareness of the various conditions of the people affected in the different prefectures. The stories focus on a variety of struggles after the 2011 disasters: a story of 2013 illustrates the life of a family from the destroyed Yuriage district in Natori City in temporary housing and the divide within people who want to move back to their hometown and those who decide against this option. Another story of 2014 is told from the viewpoint of a mother from Miyagi Prefecture who is worried about the mental health of her daughter that worsened after the disaster. Yet another short story talks about the struggle of a woman from Soma City in Fukushima Prefecture who did not evacuate because she had to care for her elderly parents.

Although the stories introduced in the more recent years state recommended behavior in case of an earthquake or tsunami more clearly, comments on certain evacuation behaviors have been included already in early stories of the event. The events of 2013 and 2020 both include a story about men who decided to sail out on the sea to save their ships instead of evacuation on land. The stories focus on what the men see out on the sea, how they managed to rescue others, and both stories end with an emphasis on the risks they took due to their decisions and that the correct way of evacuation would have been to evacuate on land to higher ground.

Themes of hope and positivity are additional important aspects of the Kataritsugi: stories included in the recent events introduce people conducting projects to revitalize their hometowns in Fukushima Prefecture by harvesting honey (2019) or planting flowers on idle land so that more people receive incentives to move there (2020), or survivors starting their own volunteer projects, and people expressing their thankfulness for all the support they received so far.

All the stories introduced at the Kataritsugi events are centered on true experiences and rewritten based on continuous discussions with and the consensus of the narrators. Nevertheless, a big difference to other forms of disaster-related storytelling in Japan is that the stories are altered and read by third parties. Hence the Kataritsugi event may be closer to forms of disaster-related theater than to the more common forms of “kataritsugu,” or passing on lessons learned in Japan. As pointed out by Fulco [12:9], an important criterion of Kataribe, or storytellers, is the narration of their own personal experiences and the emotions that are conveyed through the personal stories. Here, the Kataritsugi event attempts to combine emotional aspects of traditional Kataribe storytelling practices, readings, and music performances, with important messages about disaster preparedness and recovery. Although the aim of such alterations is a contribution to disaster risk education, they also lead to questions of authenticity and authority on the narratives. A more thorough discussion of these questions is out of the reach of this paper, but needs to be examined in further research projects.

3. Storytelling in Disaster Risk Education. Insights from the questionnaire

A questionnaire was handed to the visitors of the Kataritsugi each year to assess the impact of the event. The following analysis includes questionnaires from the years 2013 – 2018. In most of the years, about 50 percent of the visitors handed back the forms (in total N=3042). The questions included the respondent’s residence, age, gender, which aspect of the event and which story impressed them most, whether the event was helpful to learn about disasters and, recently, what they learned from the attendance and where they experienced the disasters (the latter is not included in this analysis yet). Further, a free-comment section invited the respondents to express their thoughts about the event or recovery freely. The collaborators could choose whether to reply to all questions and whether to stay anonymous. The free-comment section was analyzed with the Coding technique using the qualitative data analysis software MAXQDA. Coding refers to “naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data.” [15: 43]. This method allowed to summarize the responses by topic and see how certain variables relate to each other. The



authors hope that the responses in the free-comment section stress the impact on disaster risk awareness if the topic is mentioned without being exactly asked about it.

3.1 Replies to the questionnaire

3.1.1 Personal background information and reasons for the participation

The replies to the questionnaire draw a clear picture of the attendants of the event: about 70% of the visitors each year are females and between 60 and 70 years old. Moreover, the majority usually comes from either the host city of the event or a city close by. The authors assume that this is linked to the older age of the respondents and corresponding hardships in traveling far distances. Another reason might be a limited reach of advertisement measures that often concentrate on the host localities. A third reason can be understood from the replies to another question. The vast majority named Keiko Takeshita as the reason to join the event. The actress continuously enjoys popularity, especially among older generations, as she became famous in the late 1970s.

3.1.2 Opinions on Disaster Risk Education

More than 90% of the respondents found the event helpful in terms of disaster risk education. Surprisingly, even people living in a directly affected city like Sendai stated that they were not aware of the current situation of those who were directly affected by the Tsunami or who were from other prefectures. Although the whole island of Japan was shaken by the Great East Japan Earthquake, and especially severely in the Tohoku region, earthquake induced damages could be restored relatively quickly. In Sendai, for instance, four days after the disaster, most of the electricity supply of the city had been restored already, by mid-March the water supply and by mid-April the gas supply [16]. That means that for those not living in the areas directly hit by the tsunami or heavily affected by radiation, the impact of the disasters was not as visible anymore after a short time. Hence, depending on the site of residence and personal experiences, even within the Tohoku region, awareness levels differ tremendously. To increase the impact of the event in terms of risk awareness and education, several respondents suggested holding the event outside of the areas directly affected by the 2011 disasters (“*hisaichi*”). Tokyo, in particular, was named a couple of times.

The event not only proved helpful in terms of raising awareness regarding the current situation of disaster-affected people. According to the survey, it also contributed to disaster risk awareness and risk education. Some visitors of earlier versions of the Kataritsugi expressed that they would like to learn more concrete examples of what to do in case of an earthquake or tsunami warning (2013,2014). Although some stories focus on conveying the ongoing struggle for recovery, others clearly state advice in case of an emergency such as to “never head out on the sea in case of a tsunami warning” (2013, 2020) or to “evacuate to higher ground immediately.” Further, a story by a man cultivating honey in Fukushima Prefecture directly addressed people in the audience to support the region by buying foodstuff as the measured radiation levels were under the safety limits proposed by the government. In doing so, the audience is challenged to think about their own disaster preparedness measures and is taken into the responsibility to engage in recovery.

Until 2019, there was no specific question about what exactly had been learned so most of the free comments regarding disaster risk awareness remained vague. Nevertheless, those who did write on the topic mentioned the necessity of evacuation drills and the need to include disaster risk education in schools. Through all the years the survey has been conducted, a large part of the comments stated that events like the Kataritsugi would be needed and helpful “not to forget the disaster,” the “ongoing struggle of the affected areas,” or the “achievements of the affected people.”

3.1.3 Opinions on the various art forms: reading, music, pictures, and photographs



The readings enjoyed the biggest appreciation among the respondents. This may not be surprising due to Keiko Takeshita's popularity and the announcement of the event as an "evening of reading and music." Further, public readings of short stories and poems are common events in Japan and enjoy ongoing popularity. Although Ms. Takeshita is seen as the main reason for people attending the event, some respondents suggested having survivors read the stories themselves in addition to the actress. Reading firsthand accounts by eyewitnesses would reflect the importance of Kataribe in a more traditional sense, as pointed out by Fulco [12]. Each year, about a third of the respondents described that they were overcome with emotions when listening to the stories, and many mentioned that they cried during the performance.

In 2012 no pictures were used in the background, in 2013 a PowerPoint with photographs of the disaster-affected areas, and in 2019 a time-laps video of pictures of the sea. Apart from those mentioned years, several meters tall hand-painted pictures depicting various scenes of the 2011 disasters by Hiroshige Kagawa are used in the background. The photograph slideshow was mentioned negatively by five people as it would be hard for some of the victims to see the pictures only two years after the disaster. Two persons commented that the photographs were distracting from the readings, and two more that too many things were happening at the same time. The time-lapse video of 2019 was not mentioned in the survey, but Ono received positive feedback orally as it was seen to not interfere with the other performances and matched the stories without showing scenes of disaster. The biggest impact among the background had the hand-painted pictures. The pictures were mentioned more than 10 times each year and by all genders and age groups likewise. The combination of the reading, the light and the picture were praised as well as the content of the pictures themselves. Many guests went closer to the stage after the event finished to see the pictures.

The opinions on the musical contributions were divided among the guests: In the free writing section, many people would praise the musical performances, but some critical voices can also be seen each year. The most outstanding comments included the song selection being too cheerful or interfering with the readings. Overall, the comments regarding the music were praising the combination. Many stressed how they were moved by the music and how they felt a greater impact of the stories as they were accompanied by the songs. Especially the music performances in between the readings were complimented. Among the performances, those done by choirs, including children choirs, stood out. Most of the songs with lyrics focused on optimistic or nostalgic messages and were thus seen as particularly moving.

3.1.4 Critique

In general, male respondents were more critical than females. While in 2014 85.3% of the women gave the highest possible rating for the event, only 74.6% did so among the men. In early versions (2013-2014) a few people criticized the combination of music and the readings and two persons suggested to have clearer instructions on disaster risk reduction, for instance how to evacuate. In all the surveys conducted, most of the critique targeted the music volume which some found too loud and voices especially by elderly older than 60 years. Some in their 70s or older voiced difficulties to understand the readings. Others noted that the early versions (2013, 2015) had too much variation among the content. Some elderly criticized the length of the event as it was hard for them to sit for such a long time.

After the event, the critique is evaluated carefully, and the team led by Ono discusses possible ways to improve the Kataritsugi. Some of the changes included choosing softer instruments and turning down the volume of them. Except for 2019, moving photographs in the back have been replaced with not moving hand-painted pictures. This change was appreciated by the audience (the time-lapse video of 2019 was not mentioned negatively). In response to various improvements, the percentage of those not finding the event very useful in terms of disaster risk reduction decreased from 13.6% in 2013 (*maa, yokatta, and amari yokunakatta*) to stable 5-6% in the following years (*sukoshi wa kōkateki, and omowanai*).



3.2 Analysis and potential improvements

The Kataritsugi event managed to draw about 1000 visitors every year, making it one of the biggest and longest-running memorial events in the Tohoku region. Holding an event at about the same time each year with a celebrity proved to be helpful in terms of advertisement and attracting visitors. However, Keiko Takeshita's popularity among the elderly population reflects in the age and gender distribution of the visitors, as the large majority are female pensioners.

Although almost all the participants come from the Tohoku region (99% from the host prefecture, mostly Miyagi), many respondents stated that they learned aspects of the 2011 disasters that they did not know before or useful information about disaster preparedness. This shows, on the one hand, the complexity of the so-called 2011 triple disasters and, on the other hand, the difficulties to continuously receive updated information as time passes. As some of the visitors suggested, to increase the effectiveness of the event holding satellite events in areas not severely affected by the 2011 disasters, would be desirable. This is especially true as further large-scale disasters are predicted to happen in the near future within the larger Tokyo metropolitan area and among the Nankai trough. Facilitating easier access to the Kataritsugi event in such areas may help to raise risk awareness among those who may be affected by coming disasters but who are likely to be less informed about the effects and lessons of the Great East Japan Earthquake.

According to the survey, listening to personal accounts led many to think about the disaster and the actions they took. Many participants mentioned concrete examples of how to improve their own disaster preparedness, such as participating in disaster drills. This is especially compelling as the open question in the surveys from 2013-2018 did not specifically ask for lessons learned. Further, the arrangement of music and pictures was seen as especially moving. Combining emotional experiences with "lessons learned" seems to be a successful approach as the importance of passing on the experiences from the Great East Japan Earthquake were often mentioned together with descriptions of being moved by the performances. This is an important finding as the emotions linked to listening to first-hand accounts of eyewitnesses are seen as a significant aspect of disaster risk education through kataribe storytelling. Although some survey respondents pointed to the benefits of and the additional emotional effect of first-hand accounts, the overall positive reactions to the altered stories told by a third party, promises important insights to future possibilities in disaster storytelling and disaster risk education.

Drawing from speeches of and interviews with survivors of the Holocaust, the atomic bombings from 1945, or the Hanshin-Awaji Earthquake, the survivors themselves, as well as others, fear that with growing older, the burden of conveying their experiences might become too heavy and at some point in the near future those able to tell the story as a firsthand account may be gone forever. Here, events like the Kataritsugi that bridge first-hand accounts and people who were not directly heavily affected by the disaster (*hisaiisha*) and combine such accounts with additional emotional aspects such as music and images can be helpful to continue telling the memories and lessons learned from such disasters. As the survey showed, the audience considered the event as very effective "to not forget the disaster." To further improve the effects, some survey respondents suggested to include survivors reading some of the stories. Another suggestion could be to hold a competition among interested people from the general audience who can then read some of the stories in a special section, as it is currently done in the much smaller Kobe version of the event. Therefore, the aim is to improve the reach of the event further and to raise its inclusiveness. However, to do so, an increase in the budget and staff would be needed.

5. Conclusion

This study showed that the combination of first-hand accounts, public readings, theater, music, and images in a public event emotionally reached the audience while conveying lessons learned from the 2011 Great East Japan Earthquake. The vast majority of the survey respondents stated to have gained new knowledge on the



effects of the Great East Japan Earthquake, and the current situation and state of recovery of other municipalities and affected people. This is remarkable as 99% of the respondents came from the Tohoku area that is said to have a high awareness level regarding the 2011 disasters due to being the region which was and still is affected the most.

Storytelling by eyewitnesses is seen as an important educational tool and is already conducted to convey messages about the importance of peace, as it is done by survivors of the Holocaust and the atomic bombings, or in disaster risk education, as it is done by survivors of the Hanshin-Awaji Earthquake or other natural hazard induced disasters in Japan. To decrease the burden on elderly survivors and to continue passing on lessons learned even in cases when eyewitnesses may not be able to do so any longer, events such as the Kataritsugi can be a helpful means to reach a larger audience and secure the transmission of knowledge. Telling personal accounts on disasters accompanied by other art forms, such as music and pictures, contributed to the emotional experience of the listeners. Conducting disaster risk education in an emotional, event-like way proved helpful in attracting large numbers of visitors continuously and raising their interest in disaster preparedness. Drawing on survey results, we conclude that this interest could be further increased by adding elements such as including the audience or disaster survivors as readers on stage, or by widening the reach of the event by holding additional performances in other areas in Japan.

Further studies and follow-up interviews with the visitors are needed to understand the long-term effect of storytelling within the Kataritsugi event in terms of disaster risk education. First adaptations to better evaluate the learning effects have been made in the survey starting from 2019 and will be continued in the coming events. The authors hope that the results of this and coming studies will contribute to effective disaster risk education and ultimately saving lives in future disasters.

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