

## Risks and Benefits of Evidence in Educational Practice\*

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*The aim of the present paper is to examine the risks and benefits of employing evidence in school safety education in Japan. In the past, evidence was typically not utilized in school safety (absence of evidence). Even when evidence is utilized, there are cases where measures are promoted based on misinterpreted numerical values (risks of evidence). It is important that evidence be adopted cautiously based on scientific procedures, and that is how substantial safety is attained (benefits of evidence).*

**Keywords:** evidence; school safety; numeracy; risk; bullying

### 1. Background of the Problem

The aim of the present paper is to examine the risks and benefits of using evidence in Japanese educational practice.

For many years, an evidence-based (= based on scientific grounds) approach has been considered important. Because the field of education has not necessarily been good at dealing with quantitative methods, it is in the position to pay particular attention to the importance of using evidence. That is why what needs to be questioned is the risk of using evidence. When discussions based on evidence are strongly called for, they can lead to an easy way of employing evidence. As we see in the proverb “More haste, less speed,” this is when such a way of thinking is required.

G. H. Guyatt et al. first advocated the importance of an evidence-based approach. It should be noted that in their article, entitled “Evidence-based medicine” (1991), they pointed

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out that the ability to critically examine information was one of the three skills clinicians need. It is undoubtedly important to utilize evidence; however, evidence that is not critically interpreted has the potential to become destructive.

As numeracy was assumed to be an ability that was beyond arithmetic in the basic skills of the 3Rs (reading, writing, arithmetic) in education, it is not sufficient for one to be able to use simply numbers. When the concept of numeracy first appeared in the 1950s, it was defined as “not only the ability to reason quantitatively but also some understanding of scientific method” (Madison, 2007, p.2 ). In this way, utilization of numbers that is supported by precise scientific examination is being demanded.

This paper is one of the many that recommends an evidence-based approach and explains the importance of using evidence. However, I would like to start this paper by first acknowledging the risks of using evidence. Although referring to evidence is recommended, keeping the trend of numeracy in mind, the ability to critically examine evidence will be stressed. The evidence-based approach does not support simply accepting evidence that was given. It is an approach that utilizes evidence based on scientific reasoning, without neglecting critical examination. This is when evidence becomes benign and not destructive.

To consider the risks and benefits of using evidence, “school safety” (measures for accidents and problematic actions, etc., under school management) is selected as the most appropriate topic. There are three reasons for this. The first reason is “lack of evidence.” In the field of school safety, evidence has not been utilized for a long time. The second reason is “risks of evidence.” Among accidents and problematic incidents, there are cases that go unreported. Despite the fact that there are hidden cases (cases not being reported) in the number of accidents and problematic incidents, there is the possibility that educational measures are promoted while numerical values are being misread. The third reason is “benefits of evidence.” With careful use of evidence based on scientific procedures, it is possible to actually attain safety.

For the above reasons, the following will be considered: “lack of evidence” in school safety in section two, “risks of evidence” in school safety in section three, and “benefits of evidence” in section four.

## **2. “Lack of Evidence” in School Safety**

### **2.1 New School Safety: the Significance of Evidence**

In April 2012, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) set up the “Plan on the Promotion of School Safety.” This was because planning of school safety became obligatory for the nation as a result of the enactment of the School Health and Safety Act (the former School Health Law was greatly revised, and the new act was enforced from 2009).

With “safety education” and “safety management,” “promotion of practical school safety measures” were included as the three major aims in the plan. This was based on the idea of “safety promotion” by World Health Organization (WHO), which aimed to collaborate with people of different sections and positions and prevent accidents through interventions that could be evaluated scientifically. The following is suggested in the plan:

It is necessary to promote measures that are based on scientific grounds and to develop

a system that can be evaluated. Therefore, by thoroughly considering the burden of school settings, it is important to gather information about accidents and disasters that occurred in schools and to tackle the problems practically to reduce future accidents and disasters based on analyses.

As seen in the expressions “measures that are based on scientific grounds” and “tackle the problems practically,” the aforementioned plan was a proclamation for employing an evidence-based approach in the field of school safety. In other words, this indicates that the use of evidence had not been considered seriously enough in the previous educational practice of school safety.

For many years, Japanese educational circles have been working on the issue of “school safety.” The term “school safety” can be traced back to the “Japan School Safety Society Act” established in 1959. According to this act, “school safety” indicates “safety education and safety management in schools” (Article 18). It is highly praiseworthy that for many years, educational circles have been making efforts toward the practice of safety education and safety management. However, there was an element that was missing from the school safety efforts, despite the fact that the element could play an important role in achieving school safety. That was “evidence.” The new school safety plan that was mentioned earlier has the feature of taking evidence seriously, and it can be described as the appearance of a new “school safety” perspective. This is a big reform.

## **2.2 Focus on Suspicious People Measures in the 2000s**

The subject of school safety covers three fields: “living environment safety,” “traffic safety,” and “disaster safety.” In reality, however, it is difficult to state that school safety measures have been promoted with such a broad view.

After 2000, the central points of school safety were “measures for suspicious people” and “disaster measures.” In the 2000s in particular, “school safety” was used at times as “measures for suspicious people.” Measures for suspicious people should be included in the “living environment safety” area within “school safety.” However, “measures for suspicious people” has often been treated as “school safety” itself. It started with the murder and injury of pupils and teachers (eight pupils killed and thirteen pupils and two teachers injured seriously or slightly) in Ikeda Elementary School, which is attached to Osaka Kyoiku University, on June 8, 2001. This case, the most atrocious and profoundly damaging one in Japanese school history, later referred to as “Ikeda Elementary School Shock,” brought about an “event-driven” (OECD 2005 = 2005) development of measures.

Since 1983, there have been two cases where pupils were killed by trespassers entering school territory. These were the case of Ikeda Elementary School attached to Osaka Kyoiku University (eight killed), and the case of Kyoto City Hino Elementary School (occurred in 1999; one male pupil in Grade Two killed). When considering cases of murder by suspicious people taking place outside of school but in a territory under school management, there were 29 cases from FY 1983 to FY 2013. Since the “Ikeda Elementary School Shock,” the axis of “school safety” inclined toward “measures for suspicious people.” As mentioned earlier, the former school safety measures were insufficient with regard to measures for suspicious people. However, it seems as though the “Ikeda Elementary School Shock” made dangers other than those posed by suspicious people less visible.

### 2.3 Unlimited Danger, Limited Resources

Cultural Theory pays attention to the question of why people are concerned with certain types of danger, and ignore others (cf. M. Douglas). Whether a certain type of danger is considered as a risk differs by culture and social relationships. In this sense, risk is something that is “selected” (Douglas and Wildavsky, 1982; Dake, 1992). Does that mean, is a school safety policy that “selected” suspicious people (and disaster) measures truly correct? When a realistic decrease of risk is pursued, the way of selecting becomes an issue is.

Danger is omnipresent in this world. On our way to school, we could get in a traffic accident or could trip over a small depression in the road. During class, we could get hurt from a pencil lead or could get bruised by hitting our leg on a desk. Moreover, a trespasser could attack us.

Even under the managed environment of a school, both small and big dangers can be assumed limitlessly. It is not possible to consider every single danger, and prevent all of them. This is because the resources (people, materials, money, information, time) available to avoid danger are limited. If a state of “danger is unlimited, resources are limited” is presupposed, we must select dangers that should be prevented from an unlimited number of dangers, considering the limited resources available.

A school safety view represented by measures for suspicious people is “event-driven,” and there is the perspective missing that the resources available for safety measures are limited. From an unlimited number of dangers, what sort of danger should be selected? This is precisely when an evidence-based approach is called for. Based on scientific procedures, by adopting indices such as the number and rate of accidents, accidents that occur more frequently should be ranked as the most prioritized matters in school safety. Furthermore, from the point of cost and benefit, it is permissible to examine cost effectiveness by calculating the number and rate of accidents occurring and the resources necessary to prevent accidents. Putting aside “event-driven” safety measures for a moment, it is necessary to look through all accidents and problematic actions under school management from the point of an empirical approach employing evidence.

Strictly speaking, being “event-driven” is not necessarily problematic. What is problematic is for “event-driven” reactions to be slanted toward certain types of accidents without evidence. If “event-driven” measures are based on evidence, such as serious accidents that are frequently occurring, or if the number of accidents can be decreased with a low cost (cost effectiveness), they should rather be promoted.

## 3. Risks of Evidence

### 3.1 Field of Education and Evidence

“Lack of evidence” in school safety is starting to be reviewed in new school safety measures. However, even when the importance of evidence is acknowledged, one should not utilize evidence uncritically.

É. Durkheim called the sociology of education as the “science of education,” which describes and explains education of the past and present. At the same time, Durkheim viewed the study of education as a field that considers how the state of future education should be (Durkheim, 1922 = 1982). The field of education is future oriented rather than focusing on

the conditions of the past and present. Therefore, in education studies or in educational circles, there was a tendency to not take the use of evidence seriously enough, not just in the area of school safety. This is why the active utilization of evidence in the study of education is demanded today.

While the evidence-based approach is gaining momentum, there is a danger in uncritically accepting evidence. Because the field of education had not been specializing in handling quantitative data, will the content of evidence be introduced uncritically in cases where evidence was once viewed as something worthwhile?

Because the benefits of evidence are emphasized, one should be careful with the introduction of evidence in the field of school education. Therefore, in this section, the negative side of evidence will be examined to contrast the benefits of using evidence. I would like to mention the “risks of evidence” to discover the “benefits of evidence.”

“Bullying” is selected here as an example of the risk of employing evidence. Bullying is a phenomenon that receives special attention not only from the area of modern school safety but also from the view of evaluating the state of Japanese school education. Despite the fact that this is an important topic, evidence of bullying is often completely misunderstood. Furthermore, there are cases when educational measures are taken based on such misinterpretation. The danger of accepting evidence uncritically will be considered thoroughly.

### 3.2 Misinterpreting Evidence

Although evidence is shown in numbers, one should not automatically accept them. Especially in the area of school safety, the ability to critically read numbers (numeracy) with scientific thinking is necessary. This is because there is a high chance that many hidden cases are included in the total number of reported accidents and problematic actions.

To consider “hidden cases,” it is first necessary to clearly distinguish concepts between “recognized cases” (or “found cases”) and “incident cases.” A recognized case is the number of cases where someone found or admitted something and reported it, whereas an incident case is the number of cases that actually occurred, including hidden cases.

Hidden cases that are not included in official statistics or, in other words, cases that are not found, are called “hidden cases.” “Recognized cases + hidden cases = incident cases.” In a case where there is hardly any hidden information, it is possible to read simply the number of recognized cases as the number of incident cases. Yet, this is not possible in a case where a large number of hidden cases is assumed to exist. Discussions that clearly distinguish found cases and incident cases are necessary. One needs to be equipped with such knowledge when reading about the number of accidents and problematic actions. In reality, however, the number of cases recorded by statistics is, in many cases, understood as the number of incidents.

In October 2014, MEXT announced the 2013 survey results on bullying<sup>1</sup> and on students not attending school<sup>2</sup>. What drew most attention in media headlines was “a record high in elementary schools.” In the media articles, expressions such as “increase,” “a record high” or “an era of 200,000 cases of bullying (elementary, junior, and senior high school)” were often used, and these were manipulated to convey the impression that society was heading toward a worse direction.

However, it is not being recognized that a large number of hidden cases are included in the instances of bullying in these reports. The instances of bullying directly reflect how peo-

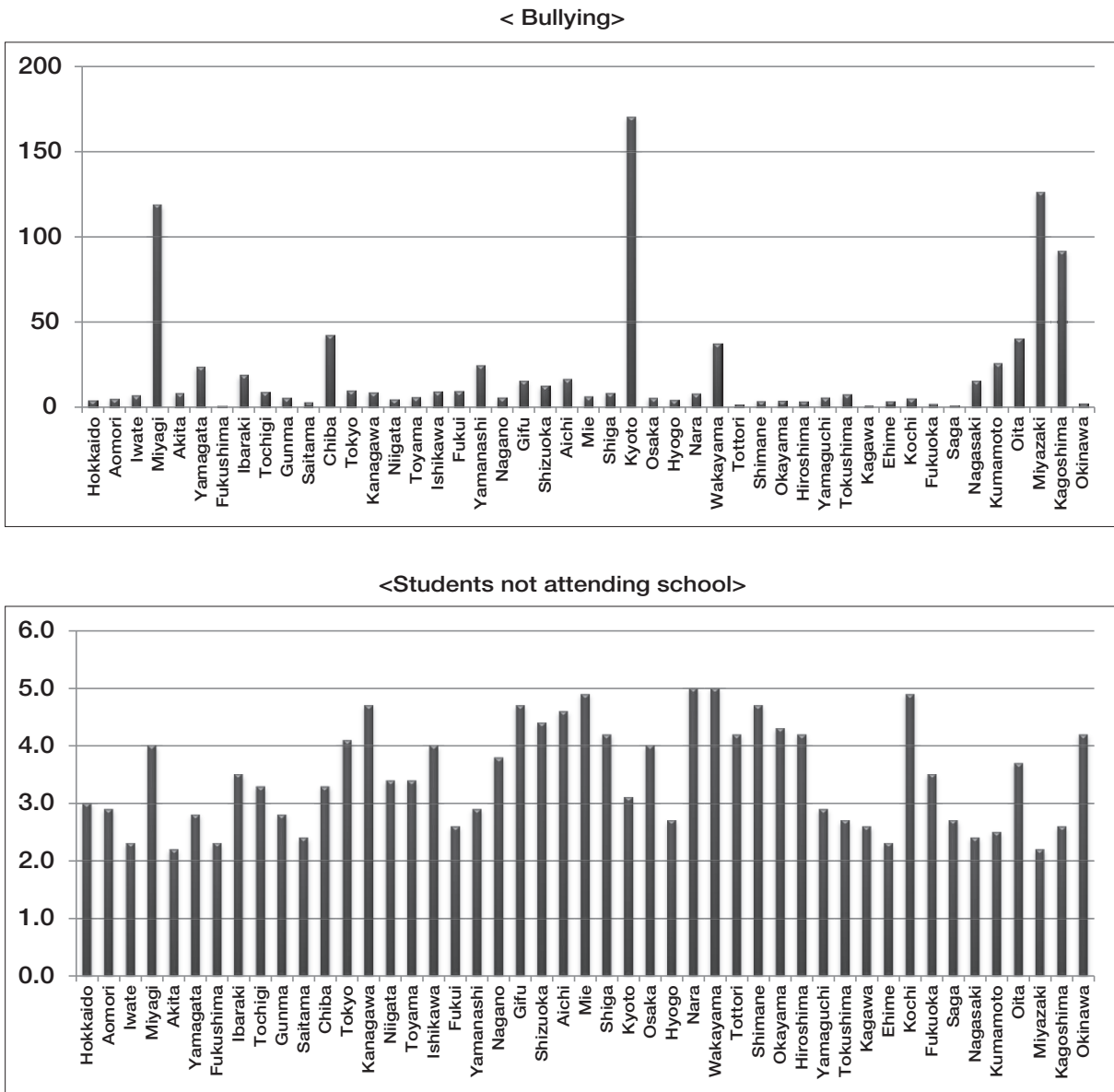


Figure 1 Number of bullying and students not attending school in primary school (in every 1, 000 pupils, FY 2013)

ple “view” them. In other words, when teachers become sensitive toward bullying, the number increases, but the number becomes zero when teachers are indifferent. MEXT revised the term “bullying cases” as “recognized cases” in 2006 (the original term was “incident cases”). An increase in the number of bullying cases indicates that teachers made efforts to actively detect bullying. A “record high” was the result of teachers’ effort.

The number of bullying cases involves recognized cases that include many hidden cases. This is evident from the recognized cases of bullying and of students not attending school recorded by prefecture. Figure 1 shows the calculation of the number of cases in every one thousand for bullying and of students not attending elementary schools by prefecture. Compared to students not attending school, it is clear that a bigger discrepancy exists among pre-



Table 1 Data shown by the Ministry of Finance

	FY 2006-2010 (before the adoption of the class size of 35 pupils)	FY 2011-2012 (after the adoption of the class size of 35 pupils)
Bullying	10.6%	11.2%
Violent actions	3.9%	4.3%
Not attending school	4.7%	4.5%

fectures for bullying.

Of course, hidden cases are included in the number of students not attending school. It is true that the definition and judgment of students not attending school may not be very clear. However, it is possible to judge objectively whether students come to school or not. It can be said that simply counting the number of cases and judging scientifically leads to a smaller gap among prefectures for the number of students not attending school. The number of students not attending school can be reflected in the official statistics relatively easily. However, bullying is strongly influenced by how it is being recognized. Thus, differences in the way bullying is tackled by local governments is strongly related to its level in official data.

The manipulation of the impression that Japanese school education is moving in a worse direction is being created through the wrong way of reading the number of cases. An increase in the number of cases indicates people's stronger awareness of bullying and, as a whole, it should be stated that the situation is moving in a positive direction. After that is acknowledged, the gap among prefectures should be viewed as a crucial issue. The highest value of Kyoto prefecture (170.3 cases) is 196 times greater than the lowest value of Saga prefecture (0.87 cases). Depending on the prefectures that pupils spend their school lives in, this is how great the difference can be with regard to the ways in which bullying is tackled. Considering children's safety, this big gap should not be dismissed.

### 3.3 Educational Measures Based on Misinterpretation

One week after the number of cases for bullying in 2013 was announced by MEXT, the Ministry of Finance launched a new policy based on the number of cases. The policy was to "bring back a class size of 35 students to 40 students" in public elementary schools.

The class size of 35 students had just started from grade one in public elementary schools in 2011. When the class size becomes small, the total number of classes and number of teachers increase. The cost necessary for hiring teachers is by no means small. According to an approximate calculation in the document of the Sectional Committee on the Financial System of the Financial System Council (held on October 27, 2014), it was considered possible to cut down 8,600 million yen on labor costs (for personnel expenditure) by taking the class size back to 40 students, leading to a reduction of about 4,000 teachers and staff. The Ministry of Finance made this suggestion based on the number of cases of bullying, students not attending school, and violence. The Ministry of Finance did not simply make an appeal to "cut down the number of teachers (budget cuts)" but made the claim by employing statistics as evidence. This appears to be an evidence-based policy or policy making.

The Ministry of Finance used the statistics shown in Table 1. Comparing earlier periods

(from 2006–2010) and later ones (from 2011–2012), after the introduction of a class size of 35 students, the rate of first-year student cases in all elementary school grades increased for bullying, slightly increased for violence, and slightly decreased for students not attending school. Although the rate for students not attending school decreased slightly, the rate for bullying increased, and the rate for violent incidents increased slightly. Based on this, the Ministry of Finance judged that there was “no noticeable improvement,” and concluded that the class size of 35 students has no effect<sup>3</sup>.

However, as has been pointed out, the number of bullying cases is a recognized number that often includes many hidden cases. This is the same with the number of violent incidents. On the other hand, the number of students not attending school includes fewer hidden cases, and it tends to be close to the number of cases that actually occurred. An increase in the number of bullying and violent cases should be assessed basically positively. Furthermore, a slight decrease in the number of students not attending school should also be viewed positively (if going to school is considered good). In other words, it is concluded that “the effect of a small class size was wonderfully shown.”<sup>4</sup>

What we can understand from this example is the reality where educational measures can be adopted while evidence is being misused. Evidence was certainly used, but it was unreliable evidence that lacked careful scientific examination. It is a poison that skewers reality. The evidence-based approach requires not only arithmetic but also numeracy abilities to examine numbers scientifically and critically.

## **4. Merits of Evidence—Using the Case of Judo Accidents**

### **4.1 Quantifying School Danger**

In this section, an example is summarized where a school safety movement was promoted while employing closely and scientifically examined evidence. Evidence using the concept of numeracy can positively enhance school education. By reflecting on the sequence of the process I undertook, I would like to confirm the importance of putting together and analyzing evidence.

For many years, there was a lack of evidence in the field of school safety. However, diverse evidence was accumulated in the field of risk study. In the field of natural science, where environmental issues, disaster, and health damage were studied, risk has been quantified through scientific measurement and experiments. What is most useful in the process of quantification is data on “deaths.” Because of its critical nature, the number of occurring death cases can be understood relatively accurately. In risk studies in natural science, “the worst state that should be avoided” is called the “end point” of risk, and “deaths” are used as the strongest index that represents that “end point” (Nakanishi, 2004).

R. Wilson, for instance, a researcher who represents the early stage of risk comparison studies, examined which daily actions (smoking, drinking, moving on bicycles, automobiles, airplanes, living near a nuclear power plant, etc.) had a higher degree of damage by utilizing death rates obtainable from the number of deaths in each action (Wilson, 1979). When a light injury is placed as an end point, judgment about whether injuries “exist” or not depends heavily on the time, cultural value criteria, or the context of that particular situation, as cultural theory points out. “Death” is a tangible loss that has little to do with people’s sensitive



views, and it is an effective index that helps us understand the existence of risk.

Until today, school safety in Japan was distanced from the workings of quantification. When paying attention to the situation of “death,” what becomes apparent from the school’s reality?

For death cases that occurred under school management in Japan, the Japan Sport Council annually published “Cases of Death and Injury under School Management and Consideration for the Prevention of Accidents” (“Disasters under school management” from the 2013 edition). In the publication, a summary is given in a few sentences of each death and injury that occurred under school management. The publication of the first volume goes back to the 1985 edition (accident cases go back to 1983).

The author looked through all death cases that occurred under school management after 1985, and classified them into different categories by pasting the summary of each case on separate cards. When the most recent (2016) edition of the publication is included, the total number of death cases reaches about 7,000.

One of the issues that became apparent in this process was “judo accidents.” While categorizing, a high frequency of judo accidents was noticeable. What is problematic is not only the large number of death cases but also the extremely low amount of interest paid to the issue by the public, despite its frequent occurrence. Actually, back then, the issue was not widely known socially, and physical education (P. E.) and sports researchers were also not aware of the problem (Yamamoto, 2013). Despite the fact that there were over one hundred death cases, there was no social interest paid to the issue. In cases such as those where trespassers harmed children, the media reported on them instantly, and people often became frightened after reading the news. It was absolutely a contrasting situation.

Furthermore, it became apparent that there were many death cases during sports club activities and P. E. classes in school back then. Looking at past records, out of the 795<sup>5</sup> death cases that occurred in the ten years from FY 2001 to FY 2010 in primary, junior, and senior high schools, 364 cases (or 45.8%) took place during sports activities. Because roughly half of the total death cases were sports related, it became clear that preventing sports accidents is a crucial issue. Moreover, accidents most frequently occurred during club activities. Among the 364 death cases that occurred during sports activities, they occurred as follows: 198 cases (54.4%), over half of them during club activities, 107 cases during P. E. classes, and 49 cases (13.5%) during school events. Death cases during club activities were occurring frequently under school management, and this should be considered as an issue that needs to be prioritized.

#### **4.2 Making “Judo Accidents” Tangible through Evidence**

The following three points were revealed from the evidence of judo death cases put together by the author:

- 1) There have been over one hundred death cases<sup>6</sup> in junior and senior high schools since 1983.
- 2) Regarding the features of death cases, head injuries caused by *nage waza* (throwing techniques) make up many death cases, and the ratio is high for first-year students (beginners) in both junior and senior high schools.
- 3) Compared to the death rate of major club activities, the death rate during judo is quite high (Figure 2).

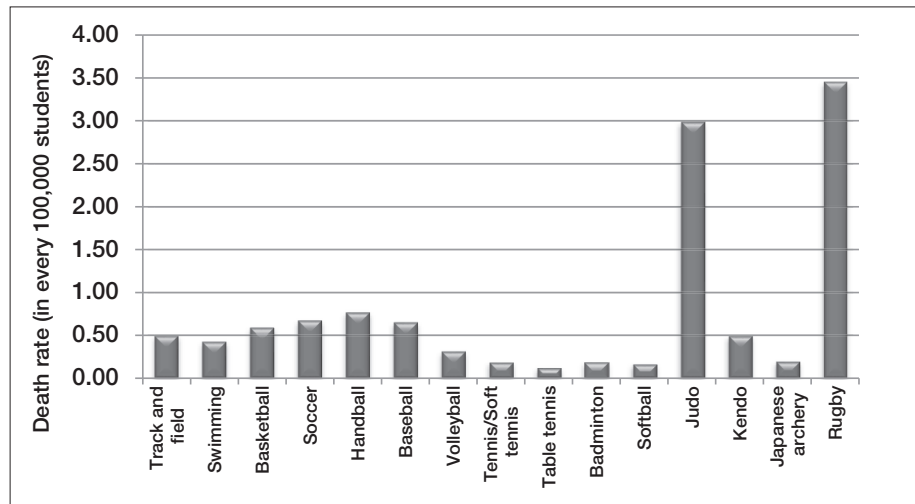


Figure 2 Death rate of major club activities in junior and senior high schools (in every 100,000 students) [FY 1994-2013 (for 20 years)]

After putting the data of judo death accidents together and analyzing them, the aforementioned findings were published on the website “Research Institute for Risk in School”<sup>7</sup> managed by the author in mid-September 2009, and an appeal was made for improvement. By the next month, the family of one victim of a judo accident learned about these data. The data became “a big motivation,” and the “National Association of Judo Accident Victims and Surviving Families” was established in March 2010 (Uchida, 2010).

In 2010, not only the victims’ side but also judo agencies took action in response to the victims’ appeals. The All Japan Judo Federation included neurosurgeons in the “Medical Science Committee” of a committee of experts in May and strengthened measures for head injuries, and began the “Special Committee for Safety Instruction Project” in June. Furthermore, it was announced that the organization would create the third edition of a pamphlet entitled “Judo Safety Instruction” that was first published in 2006 and revised in 2009. The pamphlet would include measures for serious head and neck accidents (published in June 2011).

Given the state of “continuing occurrence of judo-related accidents,” MEXT, which is in charge of the All Japan Judo Federation, sent out a notice entitled “(Request) About Safety Instruction during Playing Judo in School, etc.” to concerned agencies. Even after that, MEXT sent out a notice in March, April, and December in 2011 and March 2012. In August 2011, it launched the “Council of Research Collaborators for Accident Prevention During Physical Education Activities” and handled issues of judo accidents intensively (according to a report announced in July 2012).

From around October 2011 to March 2012, news about judo accidents was at its peak. In addition to frequent occurrences of crucial accidents, including deaths, the fact that martial arts was set to become compulsory in junior high school from April 2012 attracted the media’s interest. Different newspapers had feature stories and mentioned judo accidents in their editorials. Television stations also made an appeal about the issue through their news reports and documentary programs. In each case, evidence of judo accidents was almost always mentioned. Media reports disseminated to the broader world the real situation of judo accidents, which had not been noticed before. At the same time, they pressured the judo and ed-

ucation world for improvement.

#### 4.3 Enhancement of Problems—Prevention of Head Injuries

Problems of head injuries became apparent from the analysis of judo death cases. The discovery of judo accidents was also the discovery of head injuries caused by playing judo. According to Yuji Futamura, the vice-chairman of the Medical Science Committee of the All Japan Judo Federation, committee members, when given the data on death cases in December 2009, received the data with a shock. This was the period when problems with judo accidents began to be discussed. Actually, even within the Medical Science Committee, which was structured with twenty to thirty doctors involved in judo back then, there was no neurosurgeon who was an expert on head injuries (NHK ONLINE, 2012). Even among the All Japan Judo Federation, which manages players throughout Japan, concern regarding “head injuries” was close to nil. There was much less chance of judo club supervisors and P. E. teachers having knowledge or a critical sense of head injuries. The use of evidence about the issue of head injuries appealed broadly to those concerned.

After 2010, efforts to implement safety measures, with the central concern being head injury prevention, were being made by the All Japan Judo Federation. There are various measures we can take to prevent accidents. They are, for example, the establishment of a license system for official instructors, the creation of an instructors’ manual for schools, and the establishment of a special committee for safety instruction project that oversees this. Of course, preventing head injuries is the top priority. In the preface of the All Japan Judo Federation’s “Judo Safety Instruction” (2006 edition; the first edition), critical accidents were assessed as follows: “its causes are almost uncontrollable,” but such attitudes vanished completely in the 2011 edition (the third edition). “Injuries of head and neck areas” are “considered as something that were directly connected to serious accidents,” and many pages are devoted to explaining the developmental mechanism and prevention measures.

The spread of safety measures that focused on the prevention of head injuries, or to put it more broadly, the rise of awareness of safety when instructing judo classes led to the decrease of serious accidents. Although children’s death cases continued, such as four cases in 2009, seven cases (including two cases that occurred in local town *dojos* [a training place]) in 2010, and three cases in 2011, the number of accidents quickly became zero after 2012, when judo accidents suddenly became a social issue. The judo world used to be completely uninterested in head injuries. As soon as it suddenly became interested in head injuries, the number of death cases reached zero. Death cases that unfortunately continued became evidence, brought the real state of accidents to light, and led to considerations for accident prevention and for the improvement of the situation. Evidence allowed the judo accidents to become tangible and contributed greatly toward the improvement of the problem.

### 5. Summary and Conclusion

In this paper, “lack of evidence” was first pointed out by using school safety as an example. Although the importance of school safety had been pointed out for many years, problems that should have been tackled were not selected by examining the whole school safety. People today have stronger expectations of the role of evidence. However, one should avoid

accepting evidence easily. Regarding the “risk of evidence,” the danger was pointed out where it was possible for evidence to be misinterpreted and, further, be reflected in measures. Numerical values that include hidden cases such as “bullying” should be handled with care. Only with the ability to view evidence critically and to be able to examine it scientifically can the “merits of evidence” be displayed. Judo death cases first became apparent through evidence, and consequently, death cases were controlled.

Evidence at times has an impact on the world. That is why it needs to be handled with care. Related to this, one limitation of the current study is stated. This paper claimed that evidence supported by close scientific screening should be used. What I prefer to add here is that although numbers can be interpreted accurately through a scientific method, whether to prioritize what evidence instructs always depends on the context.

Guyatt (1991), who first advocated an evidence-based approach, demanded that we free ourselves from believing in authority (textbooks, lectures by experts, senior doctors). However, when people start to claim the effectiveness of evidence, there is a danger that evidence itself becomes the authority. In the arguments that followed Guyatt’s initial 1991 examination, it was stressed that evidence only is completely insufficient. In the case of doctors, it is necessary for doctors to match their specialized knowledge and evidence (Sackette, 1992). Furthermore, it is important for them to face the value of patients and their own (Guyatt et al, 2002).

In the case of educational practice, where real people are the subject, the adoption of an evidence-based approach does not certainly become an end in itself. How can people be helped through the use of evidence? The quest to find the answer to this question has just begun.

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### Notes

- 1 In the study, “bullying” is defined as follows: “Bullying” is “an action that a pupil receives psychologically or physically (including those through the Internet) from a different pupil who holds a certain relationship with that pupil within the same school, etc. (Anti-Bullying Act [Heisei 25 Law Number 71; hereinafter “Law”] Chapter 2 Item 1). Moreover, it does not matter whether bullying takes place in or out of school.
- 2 In the study, “not attending school” is defined as the following: Regarding “pupils and students that were absent for more than thirty days successively or intermittently,” “not attending school” indicates either those not attending school or cannot attend school although they wish to because of some psychological, emotional, physical or social factors and/or backgrounds (those who are “ill” and/or have an “economic reason” are excluded.).
- 3 Based on MEXT’s research results on problematic actions, this calculation was analyzed by the Ministry of Finance on its own. In the case of bullying, for instance, the rate was calculated for Grade 1 and for Grades 2 to 6 annually from FY 2006 to FY 2010; the average was calculated for each year from FY 2006 to FY 2010.
- 4 In the end, the idea of the revival of the class size of 40 students was abandoned.
- 5 Excludes accidents when students are on their way to school. Almost all of accidents that occurred when students were on their way to school were traffic accidents.
- 6 For the most recent data, 118 death accidents occurred in the 31 years from FY 1983 to FY

2013.

- 7 Diverse information related to school risks has been released: <http://www.dadala.net/>

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