A Study on the Effectiveness of in-service Teacher Training on Olympic and Paralympic Education in Japan: Toward Realization of more effective Practice of Olympic and Paralympic Education

抄録

本稿の目的は、スポーツ庁委託事業「オリンピック・パラリンピック・ムーブメント全国展開事業」に協力しているA市で行われたオリンピック・パラリンピック教育に関する教員研修の効果検証を行うことである。このことは、今後、効果的なオリンピック・パラリンピック教育に関する教員研修の方法を明らかにするための基礎データを提供することにつながるため、意義があると考える。

この目的を達成するために、本稿では、先行研究を参照し、質問紙調査を実施した。質問項目は、興味、重要性、知識、方法、そしてオリンピック・パラリンピック教育を授業で行う自信の5項目で構成した。

結果は以下の通りである。まず、事前と事後の結果を比較すると、全ての質問項目で有意に向上が見られた。一方で、事後の結果の項目間の相関を検討すると、今回の教員研修が特に実践的な課題には十分に答えられていないことが明らかになった。

これらの結果から、今後の課題として、オリンピアン・パラリンピアンの役割を含む講演の内容の検討、より実践に向けた理解が深まる方法の検討、そして学校種に合わせた実践方法の検討の3点を指摘した。
1. Background

1.1. Olympic and Paralympic Movement for Tokyo 2020 Olympic and Paralympic Games

September 8th, 2013, International Olympic Committee decided Tokyo to the 2020 Olympic and Paralympic Games host city. It is already known that host city and country should be responsible for developing Olympic and Paralympic Education (OPE) as one of the task of Olympic and Paralympic Movement. Therefore, in Japan, some organizations already has taken OPE\(^1\). According to “The Knowledgeable Person Conference about Olympic and Paralympic Education” that was to make direction of OPE for 2020 and hold nine times, the purposes of OPE are as follows.

1. To improve the understanding and interesting of nation for the significance and value of sport
2. To settle and spread of a number of citizens, including people with disabilities, who participate actively in sport (doing, seeing, supporting, investigating, and creating) throughout their lives
3. To nurture qualities and abilities required for society of the future for young people including pupil and student

(Ministry of Education, Culture, Sports, Science and Technology, online)

To achieve this goal, especially in school, it was emphasized that because teacher was the “direct agent of OPE,” it was expected that the opportunity to understand deeply about the OPE would be ready for teacher as an in-service teacher training (The Knowledgeable Person Conference about Olympic and Paralympic Education, 2016, p.15). This policy leads one of the important subjects that is to conceive an effective method of in-service teacher training to develop an interest and understanding about OPE. In Japan, for example, in Tokyo Metropolitan Board of Education (TMBE) had in-service teacher training to develop OPE in school (TMBE, online). In addition, from the International Olympic Committee (2010), some countries also provided the project to involve the teacher in Olympic Education. Moreover, from the International Paralympic Committee (online), National Paralympic Committee was recommended to have training session for teacher to understand the policy of Paralympic Education and so on. However, these program have never verified the effect to teachers who participated in it.

On the other hands, in the previous study about OPE, there is lack of focusing on teacher who was in charge of it in school except Jorge and Otavio (2012) and Tomozoe et al (2018). Jorge and Otavio (2012) interviewed teachers who were taking Olympic Education program in Brazil, entitled “The Second Half Program,” about understanding of Olympic Education. In the conclusion, they indicated that teachers didn’t understand the Olympic Values and method to teach it. Then, they mentioned in conclusion that “The absence of planned and systematic pedagogical action in the informants’ answer can be related to the lack of training offered” (Jorge.K. and Otavio.T., 2012, p.362). This consequence supports the importance of the subject this study attempted. However, this study also didn’t mention the method of an in-service teacher training. Tomozoe et al (2018) clarified the effect of teacher training for OPE in Japan. However, in this study, there was no perspective of comparison by method\(^2\).

1.2. The system of in-service teacher training in Japan

In Japan, the Article 9 of the “Education Basic Law” and the Article 21 of the “Special Law for Education and Civil Servants” stipulate that teacher constantly engage in research and cultivation\(^3\). Based on these laws, 5 types of teacher training were imposed: the legal training including the initial training and 10-year experienced training, teacher training according to teaching experience, ability, long-term dispatch training, training on expert knowledge and technology. On this assumption, Ministry of Education, Culture, Sports, Science and Technology
indicates that “Because it is an era of intense change, the importance of surely acquiring the qualification and ability is increasing” (Ministry of Education, Culture, Sports, Science and Technology, online) and the in-service teacher training is one of the method to achieve it.

1.3. The analysis of previous study about PE in-service teacher training

In Japan, OPE was basically researched in Pedagogy of the Physical Education. In the Pedagogy of Physical Education in Japan, few studies focused on the teaching method of in-service teacher training on the contrary that there were a lot of previous studies about the process of teacher growth(1). Still, there were some studies about a method of in-service teacher training (Mori, 2004; Matsumoto et al, 2013; Shimizu et al, 2014; Ohashi, 2015; Takane and Shinbo, 2017).

However, in these previous studies, there were some methodological problems. Mori (2004), Shimizu et al (2014) and Ohashi (2015) examined the effect of their arranged in-service teacher training, but these studies were insufficiently verified. Only Matsumoto et al (2013) examined the effect of arranged in-service teacher training by questionnaire survey, but they only collected and analyzed posterior data. Therefore, analysis of changes from before to after the program has been required.

1.4. The purpose and significance

The purpose of this study was to verify the effect of in-service teacher training of OPE in case of A city where participated in the program of “The Developing Olympic and Paralympic Movement to All Over Japan” by Japan Sport Agency. This study can contribute to providing basic data to clarify effective method of it.

In this program, the consortium was organized with JSA, Cabinet Secretary, Tokyo Metropolitan Board of Education, Tokyo Organizing Committee of Olympic and Paralympic Games, Japan Olympic Committee, Japanese Paralympic Committee, The Nippon Foundation Paralympic Support Center and three universities (University of Tsukuba, Waseda University, Nippon Sport Science University). Moreover, in 2017, twenty educational boards that ran for the promoting area of OPE were positioned under the consortium and carried out the in-service teacher training of OPE with one of three universities, officially entitled “Regional Seminar” (WASEDA ROPE, online).

The reason for choosing this program and A city which was located far from Tokyo was related to the degree of people’s interest in Tokyo 2020 Olympic and Paralympic Games. According to “The Opinion Poll on Tokyo 2020 Olympic and Paralympic Games” published by the Cabinet Office in 2015, the rate of people who were interested in Tokyo 2020 Olympic and Paralympic Games in each area were as follows (Figure 1).

As the Figure1 almost shows, the farther away from Tokyo, the less interested in the Tokyo 2020 Olympic Games. It also shows that in all areas, the less interested in Tokyo 2020 Paralympic Games in comparing with Tokyo 2020 Olympic Games. Of course, there is also a criticized view that the city and area except host city have no relation with the Olympic and Paralympic Games. However, Olympic and Paralympic Games itself aim to spread the ideal of Olympic and Paralympic, and Japanese Government think Tokyo 2020 Olympic and Paralympic Games as “a nation festival for all Japanese people” (The headquarter of promotion for Tokyo Olympic Games, Tokyo Paralympic Games, 2015, p.2). From this view, it is obvious that the importance of developing the interest of people lived in outside of Tokyo. Therefore, the program by JSA is more important. For it, to examine the effective method for in-service teacher training in OPE is required.

2. Research Methods

2.1. Outline of in-service teacher training and participant

The purpose of in-service teacher training was to understand the importance of OPE and to acquire
the practical knowledge. In A city, to achieve this goal, the content of in-service teacher training was provided by Olympic athlete, Paralympic athlete and researcher with lecture style. Their presentation consisted of the following contents and schedule (Table1).

As the Table1, from the Olympic and Paralympic athlete, their experiences in Olympic and Paralympic Games and message to children were told. From the researcher, the OPE’s policy, material and practice example were explained. In addition, these contents were set by the Educational Board of A city.

The number of participants divided by the grade of schools as follows (Table2).

### 2.2. Measures

The method applied in this study was a questionnaire survey. In the previous studies about PE in-service teacher training, few studies measured the effect of it except Matsumoto et al (2013) and Takane and Shimbo (2017). They applied questionnaire survey and Semi-structured interview respectively. Then, in this study, the questionnaire survey was applied because of the prediction that there were many subjects and it was difficult to interview to all participants.
The process of creating question items with reference to the preceding research was as follows. Matsumoto et al (2013) applied the questionnaire survey to research the Dance practical training for Physical Education teacher. The question items were composed six questionnaires, “I felt fun with teaching Dance,” “I understood something about teaching Dance,” “I acquired the method of teaching Dance,” “I have anxiety about teaching Dance,” “My anxiety was resolved,” and “I want to teach Dance in PE class.” In this questionnaire, all items other than Q4 were asked about the effect of the training session. Also, the question of whether I have anxiety was vague and it might be said that they should investigate participants’ anxiety in advance and create the contents of the in-service teacher training for resolve them as Murai et al (2011). Moreover, regarding the relationship between Q 6 and Q 4, Q 5, if anxiety was resolved, I would like to teach Dance, and vice versa. Therefore, in this study, in order to pay more attention to effects of in-service teacher training, Q4, Q5 and Q6 were combined into one item. On the other hands, in the previous studies of other subjects, also few studies measured the effect of in-service teacher training by applying questionnaire survey. A representative study was Sudou and Fujii (2012). They examined the change of consciousness for collaborative learning in information studies teachers’ training by the questionnaire survey that composed five questions including about interest, understanding, knowledge, confidence and significance. Compared with Matsumoto et al (2013), the items other than significance were same. Then, in this research, we set the following items by developing the question items of these previous studies (Table 3).

| Questionnaire                  |
|-------------------------------|
| 1 I am interesting in OPE.     |
| 2 I am aware of the significance of OPE. |
| 3 I have knowledge about OPE.   |
| 4 I acquire the method of OPE.  |
| 5 I am confident that OPE will be held in class. |

2.3. Procedures and Statistical analysis

This study was carried out in the in-service teacher training for OPE that was one of the programs by JSA. The questionnaire with free description was also carried out before and after session. A 4-point Likert scale that included yes, probably yes, probably no and no was used to record response by participants. Also, in this study, scores were totaled by assigning a number value to each level of the Likert scale: yes=4, probably yes=3, probably no=2, no=1. The questionnaire date was processed applying SPSS ver.24. Also, the differences between pre-test and post-test were calculated using t-test at the level of .05.

3. Results

The verification results of t-test were presented in (Table 4).

From Table 4, it was found that the numerical values of all the question items were significantly improved as follows. The average rate of interesting of OPE was improved from 2.81 to 3.36. The average rate of the aware of the importance of OPE was improved from 2.45 to 3.30. The average rate of the knowledge of OPE was improved from 1.69 to 2.89.

| Table 3. Arranged Question items in this study                  |
|---------------------------------------------------------------|
| 1 I am interesting in OPE.                                    |
| 2 I am aware of the significance of OPE.                      |
| 3 I have knowledge about OPE.                                 |
| 4 I acquire the method of OPE.                                |
| 5 I am confident that OPE will be held in class.              |

| Table 4. The results of pre-post test                          |
|---------------------------------------------------------------|
| pre/post | Average | Standard Deviation | t value |
|---|--------|-------------------|---------|
| 1 | pre     | 2.81              | 0.82    | -8.47* |
|   | post    | 3.36              | 0.65    |         |
| 2 | pre     | 2.45              | 0.85    | -10.2* |
|   | post    | 3.30              | 0.73    |         |
| 3 | pre     | 1.69              | 0.64    | -15.57*|
|   | post    | 2.89              | 0.60    |         |
| 4 | pre     | 1.57              | 0.54    | -14.55*|
|   | post    | 2.69              | 0.70    |         |
| 5 | pre     | 1.56              | 0.65    | -10.88*|
|   | post    | 2.29              | 0.74    |         |

(*p<0.05)
The average rate of the method of OPE was improved from 1.57 to 2.69. The average rate of the confidence of implementing the OPE was improved from 1.56 to 2.29. Also, these improvement were confirmed by statistical methods for significance.

The results of analyzing the difference between each item of the post test were as follows (Table 5).

Table 5. The results of difference between post test items

|   | Average Difference | 95 Confidence Interval |   |
|---|-------------------|------------------------|---|
|   |                   | Lower Limit            | Upper Limit |
| 2 | 0.06              | -0.21                  | 0.34 | 3 | 0.47* | 0.22 | 0.72 |
| 4 | 0.67*             | 0.40                  | 0.94 | 5 | 1.07* | 0.79 | 1.36 |
| 3 | 0.40*             | 0.14                  | 0.67 | 4 | 0.61* | 0.32 | 0.89 |
| 5 | 1.01*             | 0.71                  | 1.31 | 4 | 0.20 | -0.06 | 0.46 |
| 3 | 0.61              | 0.34                  | 0.88 | 5 | 0.40* | 0.11 | 0.69 |

(\(*, p < 0.05\))

From Table 5, especially, the rate of Q.3, Q.4 and Q.5 were significantly lower than Q.1 and Q.2. Q.1 and Q.2 were items of interesting and recognition of importance of OPE. On the other hand, Q.3, Q.4 and Q.5 were items of knowledge, method, and confidence. That was, Q.3, Q.4, and Q.5 were items related directly to practice. Therefore, this in-service teacher training could not contribute enough to improve practical tasks.

4. Discussion

From the results above, it could be suggested that the importance to improve the method of in-service teacher training that develop the practical knowledge. Also, from the view of it, it could lead some future tasks.

At first, from the viewpoint of contents, it is possible to think that they couldn’t provide the knowledge about the method of OPE compared with the importance and interesting. In relation with it, in the previous study about the effect of OPE, the role of Olympic and Paralympic athlete was discussed. For example, Lenskyj (2012) mentioned that “to hold up Olympic athletes as positive example ("role models") for children and youth is problematic” (Lenskyi, 2012, p.272). This claim were from the statistical reality that whether athletes succeeds or not depends on the genetic anomalies, not “amount of training, determination, and pursuit of the “Olympic dream”” (Lenskyi, 2012, p.272). From this study, the criticism from Lenskyj (2012) raises the question of whether the presentation by Olympic and Paralympic athletes are effective for developing the practical knowledge of teachers about OPE.

At second, in this study, the lecture by researcher and Olympic and Paralympic athletes were applied as the method of in-service teacher training. However, generally, the methods of in-service teacher training were distinguished four types as follows (Table 6).

From Table 6, it is necessary to verify the effect not only lecture this study applied but also different types of method. Especially, Sudou and Fujii (2012) proved that the in-service teacher training with participatory was effective to develop not only the interesting

Table 6. Type and Example of in-service teacher training

| Type        | Example                        |
|-------------|--------------------------------|
| Lecture     | Symposium, forum, panel discussion |
| Discussion  | Workshop, Poster session, etc   |
| Problem search | Case study, research program  |
| Experience  | Training, Tour, Practice, Field work, project method |

Center for teacher education (2012)
and understanding but also acquiring method and confidence of new teaching method. From this study, the in-service teacher training about OPE with participatory style might contribute to develop the practical knowledge.

At third, it is also important to analyze from the perspective of faculty’s expertise. In Japan, a teacher in elementary school have class about all subjects. On the other hands, a teacher in junior high school and high school have class about the subject of their major. Such conditions indicate the necessity of examining the method adapted to the each school type.

5. Conclusion

The results of this study were as follows. All items were significantly improved in this study. On the other hands, looking at each item of posterior data, this in-service teacher training could not contribute enough to improve practical knowledge.

From these results, this study indicated 3 future tasks to improve the method of in-service teacher training for increasing the practical knowledge.

At first, it was pointed out that the necessity of verification of different types of in-service teacher training. Especially, participatory in-service teacher training was recommended. At second, it was suggested that verification on the function Olympic and Paralympic athletes plays is necessary. At third, it was indicate the necessity of examining the method adapted to the faculty of each school type.

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Note

1) International Olympic Committee and International Paralympic Committee created official Olympic and Paralympic Educational program which called “Olympic Values Education Programme” and “Paralympic School Day”. Moreover, they published educational material, “Teaching Values: An Olympic Education Toolkit” and “I’mPOSSIBLE” (IOC, online: IPC, online). The relationship between OPE being held in Japan and these programs were “cooperative” (Ministry of Education, Culture, Sports, Science and Technology, online). Therefore, these official programs are positioned as reference materials.

2) Tomozoe et al (2018) clarified the date that combined 5 dates collected other seminars. In this study, part of the date clarified in Tomozoe et al (2018) was used. Also, this work was modified what was orally announced at the 69th Annual Meeting of the Japan Society of Physical Education, Health and Sport Sciences (Tokushima University).

3) The law regarding teacher session is as follows: The article 9 of the Fundamental Law of Education, “School faculty stipulated by law must be deeply aware of his sublime mission, constantly encourage research and cultivation, and strive to fulfill its responsibilities.” The article 21 of the Law for Special Regulations Concerning Educational Public Service Personnel, “Education civil servants must constantly strive for research and cultivation to fulfill their duties.”

4) For example, “The presence of Physical Education and Sport,” published in 2016, did not mention the in-service teacher training even though the aim of this book was to review. It indicates the less interesting for in-service teacher training. Therefore, this study tried to examine with study about other subjects not PE.

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Okada : A Study on the Effectiveness of in-service Teacher Training on Olympic and Paralympic Education in Japan

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— 59 —