# Developing a Design of a Pocketbook of Fencing Refereeing as Learning Media for Athletes

Faidillah Kurniawan<sup>1</sup>, Nur Shodrina Zakiroh<sup>1</sup>

<sup>1</sup>Sport Coaching Department, Universitas Negeri Yogyakarta, Jl. Colombo No. 1, Yogyakarta, Indonesia

#### Keywords: Books, Refereeing, Fencing.

Abstract: This study aimed to develop a design of a pocketbook of fencing refereeing as learning media for athletes and coaches in refereeing training. The study is triggered by the researcher's concern about athletes' lack of understanding of the rules of refereeing. The concept used in the study was development efforts accompanied by the validation and try-out data using the purposive sampling technique. The research population comprised athletes of Indonesian Fencing Association, Special Region of Yogyakarta. The tryout samples in this study included the small group try-out sample consisting of 1 coach and 8 athletes and the research sample consisting of 2 coaches and 16 athletes of Indonesian Fencing Association, Special Region of Yogyakarta. The data were collected using a questionnaire. The data were analyzed by a technique using percentages. The results of the study indicated that the pocketbook of fencing refereeing as media for fencing athletes and coaches was very good. The results were obtained from the validation involving: a) the materials expert by 96%, which was very good; and b) the media expert by 93%, which was very good. The small group try-out involving athletes yielded 84%, which was very good, and that involving one coach yielded 83%, which was very good. The large group try-out involving athletes yielded 84%, which was very good, and that involving coaches yielded 87%, which was very good. Therefore, it can be concluded that the pocketbook of fencing refereeing has been rated very good to be used as a reference for athletes and coaches rules of fencing refereeing.

SCIENCE AND TECHNOLOGY PUBLICATIONS

### **1 INTRODUCTION**

Fencing is the branch of sports derived from the sword fighting art. This sport is the martial art which combined the attacking agility and self defense using swords. Fencing is the sport that demonstrate the agility, as well as motion agility or yet the skill agility in utilizing the weapon by emphasizing the cutting, thrusting, or countering techniques of the opponent's weapon (William, 1999).

Fencing fighting is escorted by the referee who has the right to judge the penalty (punishment) to the athletes if they do certain fault. The first fault, the referee discharges the yellow card. The second fault, the referee releases the red card. The third fault, the referee releases the black card. The black card demonstrates the rigorous fault, and the player will be disqualified from the combat. The researcher initiates to develop the pocket book aims to facilitate the athletes in learning the rules of fencing. The book begins with the explanation of the regulation of being a fencing referee, the prohibitions, understanding the referee terms and the motions. This pocket book is wrapped by an eye-catching book design completed with the explanation and the motion image samples.

The researcher instigates to develop the pocket book targeted to help the athletes learning the rules of fencing. The book explicates about the rules of being the referee, stating with the prohibitions in fencing, and introducing the terms in being the referee and the image of the motions. This pocket book is wrapped by an attractive book design completed by the movement picture sample. In this case, the athletes will easily comprehend the movements and gain knowledge of refereeing motions stated in the pocket book. Obliquely, the athletes will recognize the rules of fencing.

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Kurniawan, F. and Zakiroh, N.

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# 2 RESEARCH METHODS

### 2.1 Research Type

This research applies the Research and Development method (R&D), the method applies to construct and test the effectiveness of one product. The researcher applies these steps in conducting the research and development (Sugiyono, 2007), the steps are: 1) potential and problem, 2) data collecting, 3) product design, 4) design validity, 5) design revision, 6) product trial test, 7) final product.

### 2.2 Research Time and Place

The research was completed in March 2018 at SMK 4 Yogyakarta during the *POPDA* match exhibition.

### 2.3 Research Subjects

The subjects of the research were the athletes and the fencing coaches of *IKASI DIY*. The sampling technique employed was the purposive sampling, which means the technique of source data collecting applied by certain consideration.

# 2.4 Research Operational Variable Definition

The variable of the research is the development of referee pocket book of fencing, which endeavored to broaden the insights of the athletes about the rules of fencing and as the training media of the fencing rules and fencing referee. This book can be used along with the act of coaching or without coaching (autodidact), so the athletes are able to learn by themselves. The book was validated by the materials expert and media expert, therefore that the researcher distinguishes if the book is valid and qualified by consulting to the experts. The product is able to be applied as the self-training media for the athletes and as the reference for the coaches to conduct the fencing referee program, the essential discussion in this fencing referee pocket book are as follows: (a) The definition and the authority of the referee. (b) The referee equipment. (c) The posture model / 17 motions of referee signal (d) The explanation and the appearance of piste in fencing match. (e) The referee's body position. (f) The rules of rightful attack. (g) The characteristics of 3 fencing weapons.

## 2.5 Research Instrument

Instrument is a tool used to assess the nature or social phenomenon observed (Sugiyono, 2010). Instrument is required on behalf of research data collecting and research data discovering, the examples of instruments are:

### 2.5.1 The Expert Assessment Guide

The validation sheet is provided to the materials, media and language experts. The assessment validity is aimed to comprehend the validity of the book through the assessment prearranged by the materials, media and language experts. (a) *Material Expert:* The evaluation from the material expert applies the validation sheet consisted of the validity aspects of the book contents. (b) *Media Expert:* The evaluation from the media expert applies the validation sheet consisted of the product wrapping design.

### 2.5.2 Data Analysis Technique

Data analysis technique is the manner to understand the ongoing research. Data analysis technique from the assessment result of fencing referee pocket book had been finished by doing these steps explained. The data obtained in the form of percentage is renewed into the conversion table extracted by Sugiyono (2013) as follow:

$$\frac{\sum the amount of score obtained}{\sum the maximum score} \times 100\%$$
(1)

Table 1: Score conversion in percentage						
No.	Percentage	Score	Category			
1.	81% - 100%	А	Very Good			
2.	61% - 80%	В	Good			
3.	41% - 60%	С	Fair			
4.	21% - 40%	D	Poor			
5.	0% - 20%	Е	Very Poor			

Table 1: Score conversion in percentage

### 3 RESEARCH RESULT AND DISCUSSION

Table 2: The result of trial questionnaires in small group of athletes

No.	Assessed Aspects	The Score Gained	Max Score	%	Category
1	Content	202	240	84%	Very Good
2	Book	299	320	93%	Very Good
3	Product Quality	206	280	74%	Good
То	tal Score	707	842	84%	Very Good

Table 3: The result of trial questionnaires in small group of coaches

No.	Assessed Aspects	The Score Gained	Max. Score	%	Category
1	Content	27	35	77%	Good
2	Book	33	40	83%	Very Good
3	Product Quality	31	35	86%	Very Good
Total Score		91	110	83%	Very Good

The result of the questionnaires about the Fencing Referee Pocket Book proved that the content aspect was 84% and categorized as "Very Good" from the book aspect was 93% categorized as "Very Good" and from the product quality was 74% and categorized as "Good", meanwhile the total score for the validity assessment of Fencing Referee Pocket Book based on the athlete respondents was 84% categorized as "Very Good" which can be implicitly stated that the product is in a very good quality.

The questionnaire results from the coaches about the Fencing Referee showed that the score for the content aspect was 77% categorized as "Very Good" and from the book aspect was 83% categorized as "Very Good", and from the Product Quality was 86% categorized as "Very Good", the total of the validity test for the Fencing Referee Pocket Book from coach respondents was 83% and categorized as "Very Good".

Table 4: The result of trial questionnaires in large group of athletes

No.	Assessed Aspects	The Score Gained	Max. Score	%	Category
1	Content	395	480	82%	Very Good
2	Book	615	640	96%	Very Good
3	Product Quality	407	560	73%	Good
То	tal Score	1417	1680	84%	Very Good

Table 5: The result of trial questionnaires in large group of coaches.

N	١o.	Assessed Aspects	The Score Gained	Max. Score	%	Category
	1	Content	30	35	86%	Very Good
	2	Book	36	40	90%	Very Good
	3	Product Quality	30	35	86%	Very Good
	Total Score		96	110	87%	Very Good

The result of the questionnaires about the fencing Referee Pocket Book showed that the score from the content aspect was 82% categorized as "Very Good", from the book aspect was 96% categorized as "Very Good "and from the product quality aspect was 73% categorized as "Good" and the total score for the Book Validity of Fencing Refereeing Pocket Book from the athletes respondents was 84% categorized as "Very Good" thus it is concluded that the product included into a very good scoring.

The questionnaire from the coaches about the Fencing Refereeing Pocket Book showed that the content aspect scored 76% categorized as "Good" the book aspect scored 90% categorized as "Very Good" and from the Product Quality scored 86% categorized as "Very Good". Thus it made the validity test for the Fencing Refereeing Pocket Book from the coach respondents scored 87% and categorized as "Very Good".

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# **4** CONCLUSIONS

The result from the research and development of the Fencing Refereeing Pocket Book shows the "Very Good" category. The result of this research can be used as the training manual and rules guidebook for the athletes and coaches. This can be seen from the research result from the material expert scored 96% and from media expert scored 84%, from the coaches scored 83%, and large group of athletes scored athletes 84%, while coaches 87%.

### REFERENCES

Sugiyono, 2011. Metode Penelitian Kualitatif Kuantitatif dan R & D. Alfabeta. Bandung.William, G.M., 1999. The Science of Fencing. Edisi Ke-2.

Laureate-Press. Bangor, Maine.