

# Experiences in sport and the level of motor abilities of Japanese university students

Harald Polster

## 1. Purpose

Fundamental investigations with second grade students of the Hitotsubashi University were accomplished as a part of the general sport education. They served the goal to analyse student's personal experiences in sport, enabling conclusions to the particularities of sport driving among the Japanese youth. By interest was, which types of sport are most popular and most frequent trained. Besides was explored, whether the influence of traditional sport is demonstrable. One important part of the project existed also in looking for relations between practical experiences in sport and the level of actual motor abilities. The idea was taken as a basis, that traditional movement experiences lead to typical profiles of abilities. Movement culture and sports have consequently a considerably value for development of the individuals. The investigations were planed as pilot study to find continuous evidence for experiments concerning intercultural context.

## 2. Test persons

A number of 78 students was selected to become test persons. The average of age was 20 years. Because of the reason for composition the classes only 14 female students were among the test persons. The investigations were realised in 6 regular lessons within 2 weeks. At first all participants had to fulfil a questionnaire and afterwards to complete several test stations. All participants were introduced orally before beginning the exercise at the test stations and also the test procedure was demonstrated.

## 3. Investigation method

### 3.1. Questionnaire

The questionnaire aimed to the individual motivation and sports practical experiences according to the participation in sports during the childhood and adolescence. One sample of the questionnaire is enclosed at the end of that article (Appendix).

### 3.2. Motor tests

The motor tests were assembled to some extent from international known methods. Mainly the conditional tests were taken from the *Eurofit*<sup>1</sup> test battery. Enabling investigations on psychomotor aspects were some methods added. These focused on special sensory and psychic features of movement (cp. Tab. 1).

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<sup>1</sup> Handbook for the EUROFIT Tests of Physical Fitness: Italian National Olympic Committee. - Rom 1988

CONTROL METHODS		FEATURES
Hand-Leg-Sensitivity	(HLS)	Kinaesthetically differentiation
Body Dimension Estimation	(BDE)	Body awareness
Goal Reaching	(GRN)	Spatial-temporal imagination
Flamingo Balance Test	(FLB)	General body co-ordination and balance
Plate Tapping	(PLT)	Speed of arm movement
Shuttle Run	(SHR)	Running speed and agility
Sit-Ups	(SUP)	Trunk strength
Standing Broad Jump	(SBJ)	Explosive strength of legs
Cooper Running Test	(CRT)	Endurance

Tab. 1: Features of motor tests

Some features have been summarised. They are standing for the following abilities:

HLS	Perceptual Ability	PERCEPTION	
BDE + GRN	Mental Ability during movement	COGNITION	<i>PSYCHOMOTOR</i>
FLB	Coordinative Ability	CO-ORDINATION	<i>ABILITIES</i>
PLT + SHR	Speed	SPEED	<i>CONDITIONAL</i>
SUP + SBJ	Strength	STRENGTH	<i>MOTOR</i>
CRT	Endurance	ENDURANCE	<i>ABILITIES</i>

## 4. Results

The discussions of results refer mostly to the several items coming from the questionnaire (cp. appendix).

### 4.1. Popularity versus Experience

The popularity of sports (upper scale of values) and according that, the practical experiences (lower scale of values) are shown in Fig. 1. In some types of sport a large difference between the general interests and the personal experiences can be recognised. This effects among others Sumo Wrestling, Skiing, Soccer, Baseball and American Football. In Basketball, Tennis, Swimming and Judo both items are more balanced. However, Kendo is the only type of sport, where the value of experience climbs over the public popularity. Certainly the value of popularity among the asked students is in the case of kendo relative low. That is a first indication for decreasing popularity of traditional sports compared to modern sports among the Japanese youth. Traditions in movement culture like Archery, Aikido, Kendo and Judo, mostly martial arts of sport, are to be find only in the middle until lower ranks of interest fields (Fig. 1).

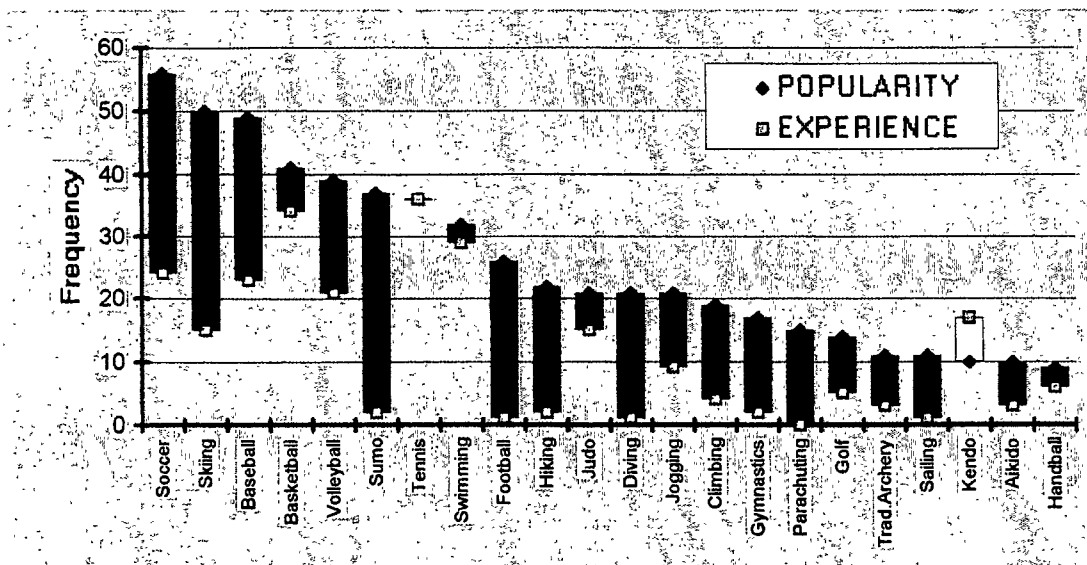


Fig. 1: Relation between experiences in sport and popularity

#### 4.2. Motivation

One item of the questionnaire treated the motivational structure of the test persons. The reasons for exercising sports were asked. The answers in that case are typically for Japanese social circumstances. On the first places stand the healthy care, followed by spending a meaningful freetime and communicative purposes (Fig. 2). The competition character of sport (Fighting each other, Be the best) is judged lowest, which is getting close to the tendency of avoiding interindividual comparisons in Japanese general sports. It seems, that the Japanese youth understands motor movement and sports more as a field of winning suitable experiences, learning and communication. In the motivational structure the performance aspect of sports is subordinated.

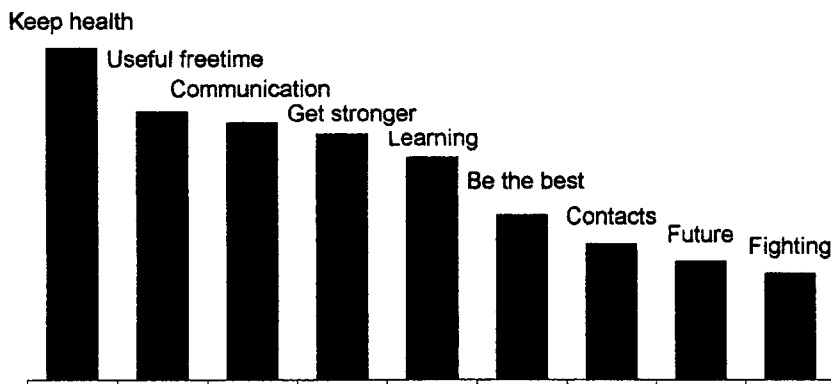


Fig. 2: Motivation for participation in sport (Frequency of mentioning)

### 4.3. Place of exercising

The main locality for winning movement experiences before entering the university is the school, that means the compulsory teaching. Sporting occasions, which are going over the compulsory lessons are realised in sport clubs. However, just these clubs are related mostly to the school (teachers, ground, facilities). Private offers of sports are relative rare in Japan. Likewise the fact, that children and youth rarely play sports by oneself or within the family does not surprise, because freetime is extremely limited especially during the school age (Fig. 3).

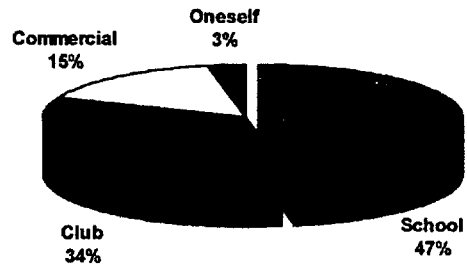


Fig. 3: Place of exercising

### 4.4. Continuity

If the duration of spending time for sports is analysed, getting clear again, that sport serves mainly relaxation and improvement of varied bodily experiences. For the investigated

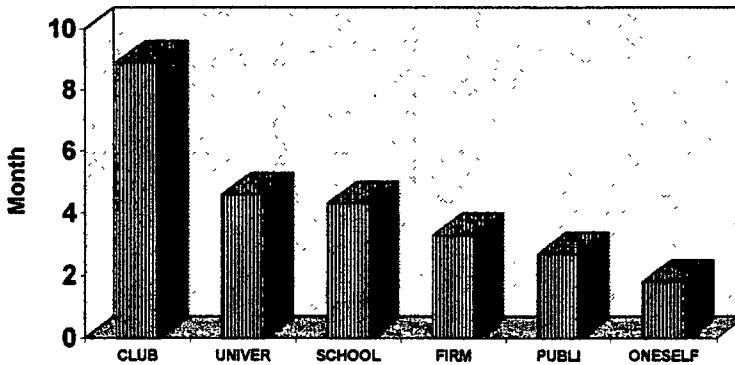


Fig. 4: Average of spending time in sport sporting activities

population in average no participation could be found, which persists longer than one year (Fig. 4). If it is taken in consideration, that more than half of the test persons indicated experiences in at least two types of sport, it is obvious that the touch to sport among Japanese youth is relative slightly.

### 4.5. Teaching persons

Concerning to the results of the previous items, even the variable influence of certain persons on learning process is justified. A special group of persons can not be emphasised (Fig. 5). On the contrary, under social point of view the influence on movement learning in Japan is very multifarious and not determinable to one authoritarian person.

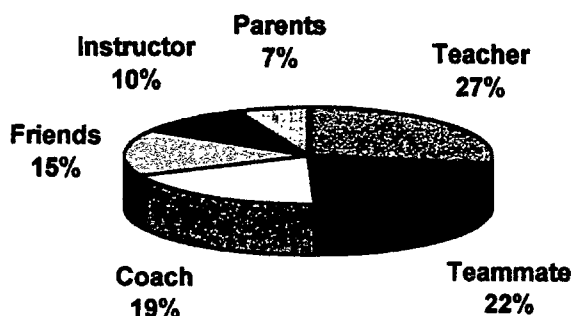


Fig. 5: Influence of several persons

#### 4.6. Importance for abilities

The theory of motor movement postulates, that various disciplines of sport develop individual abilities in different ways. This thesis should be proved for the Japanese circumstances with the help of motor tests. Considering the unstable participation in sport among the involved test persons, some problems of argumentation were anticipated.

In the following interpretation in each case 10 subjects with the best motor performances were analysed in view of their trained sports in the past. For the development of psychomotor abilities were determined the importance of following types of sport: Tennis, Basketball, Judo, Baseball and Soccer (Fig. 6 a). In the same manner the distribution of importance for the conditional motor abilities was calculated (Fig. 6 b).

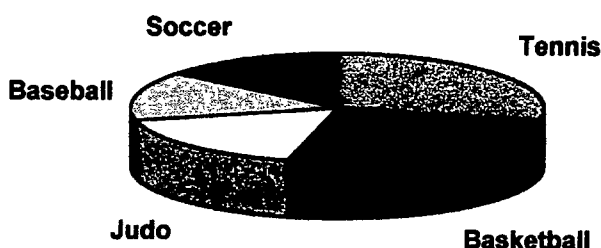


Fig. 6a: Psychomotor abilities

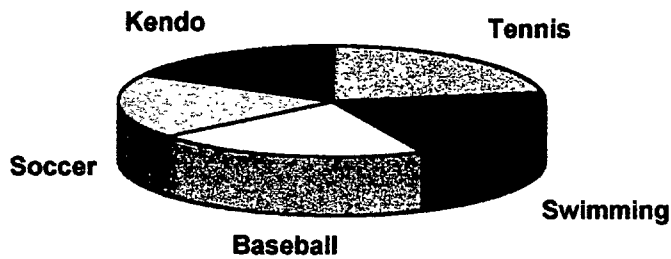


Fig. 6b: Conditional motor abilities

#### 4.7. Types of sport

In a closing question was raised the problem of relation between team sport, individual sport and traditional sport concerning the effects for developing personal requirements.

To form these 3 groups always the three highest classified types of sport were selected.

Team Sport -	Baseball
	Soccer
	Basketball
Individual Sport -	Swimming
	Tennis
	Track & Field
Traditional Sport -	Kendo
	Judo
	Archery

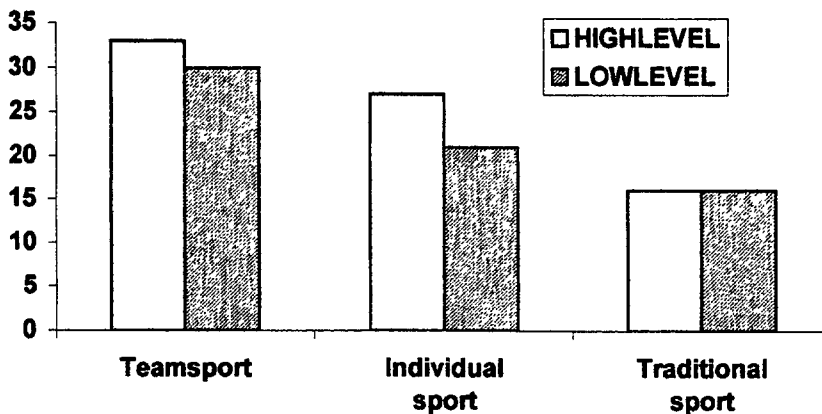


Fig. 7: Effects on motor abilities of several groups of sport

Highlevel: Better trained students

Lowlevel: Worse trained students

The main conclusion to the latter topic is: It seems, that it can not be proved a special effect of practising a certain type of sport. In all three groups the distribution between better and worse trained students is nearly the same. From this appears two questions:

- Every type of sport is useful for everybody?
- Is the manner of practising sport among the Japanese youth effective?

5. Appendix

QUESTIONNAIRE

NAME : ..... STUDY-NUMBER .....

AGE : ..... SEX :      Male      female

1. Which sport do you like watching, reading and discussing about mostly? You must not practise these types of sports by yourself!

Sport	I like it	Medium	I do not like it	I do not know it
Baseball				
Basketball				
Golf				
Volleyball				
Judo				
Diving				
Soccer				
American Football				
Tennis				
Parachuting				
Wrestling				
Sport Gymnastics				
Handball				
Running				
Traditional Archery				
Hiking/Climbing				
Swimming				
Kendo				
Sailing				
Track and Field				
Skiing				
Aikido				
Rugby				
Table Tennis				

2. Which types of sport have you practised already? You can use the list of question No. 1 or write down other sports, which you have experiences on!

	Kind of sport	School	University	Club	Public facilities	Company	Yourself
No. 1							
No. 2							
No. 3							
No. 4							

3. How long have you practised these types of sports? Use your answers from question No. 2!

	Kind of sport	School	University	Club	Public facilities	Company	Yourself
No. 1							
No. 2							
No. 3							
No. 4							

**Information in:** month or/ and years! **For example:** 2 years/ 6 month

4. How many hours per week have you practised these kinds of sports? Use your answers from question No.2!

	Kind of sport	School	University	Club	Public facilities	Company	Yourself
No. 1							
No. 2							
No. 3							
No. 4							

**Information in:** hours per week! **For example:** 9 h

5. Who has taught you these types of sport?

	Teacher	Coach	Team-mate	Friends	Parents	Instructor
School						
University						
Club						
Public facilities						
Company						
Yourself						

6. What is important for you to enjoy sport?

Reason	Important	Medium	Not important
1. to get strong			
2. to be better than others			
3. to keep health			
4. to learn something for your future			
5. to spend freetime useful			
6. to relax			
7. to communicate			
8. to fight each other			
9. to learn something new			
10. to get social contacts			