Talent selection, - identification and - development exemplified in the Australian TALENT SEARCH Programme

by Heiko Ziemainz, Jason Gulbin

A general and differentiated development of high-performance sport in Germany is necessary for any sport to attain success at national and international levels. This can only be put into practice successfully under specific, well-planned structural, organizational, material and personal conditions. Hence, the development of sport must be preceded by a thorough analysis and evaluation of the individual development systems, the circumstances peculiar to a given sport and the social context within which each sport system operates, respectively. Consequently, an efficient formation of athlete pools and an efficient development of pool athletes can hardly be ensured if the substructure of a specific talent identification and an initial talent development strategy is missing. In this article the Australian Talent Search Programme is closely examined as an example of a successful sport development system.

Already after the Olympic Games in Atlanta in 1996, but especially after the Olympic Games in Sydney in 2000 there were and still are many discussions on all possible levels about how improvements in talent selection, -identification and -development are possible. Additionally the question for the efficiency and effectiveness of present processes and procedures has arisen and still arises.

A general and differentiated development of serious sports in Germany shall make it possible to reach the national and international level in top sport responsibly. This can only be put into practice successfully under the equivalent structural, organizational, material and personal conditions. Hence development must be preceded by a thorough analysis and evaluation of the individual development systems (e.g. of some sport associations, some nations) and their various circumstances in the particular sports, respectively their social systems. Consequently an efficient formation of athlete pools and an efficient development of pool athletes can hardly be ensured if the substructure of a specific talent identification and an initial talent development is missing (compare FESSLER 1999, JOCH 1992).

Thus MARTIN / ZIEGLER 1997 formulated the Leipzig theses for the further development of the national training system for the young at an IAT / BL workshop. In thesis 4 an improved organisational structure of training (forms of concentration for pools) was demanded, among other items, and an institutionalised system of early talent identification.

In this article the Australian TALENT SEARCH Programme is closely looked at as an example for a successfully working development system.

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1. Presentation of the Problem

The criteria according to CARL (1988) for the general description of elite sport-oriented young talent training are listed. They are true for the old states (of Germany = former western Federal Republic, the editor) and have, in the meantime, become true for the new states (of Germany = former eastern German Democratic Republic, the editor):

◆ There is no uniform, definite or even dirigiste system of talent identification, -selection and -development, but an individually accentuated variety of action in elite sport-oriented young talent training.

◆ Free sport is responsible for acting in this field as well as autonomous clubs and sport associations; they are advised and supported by the German Sports Federation, especially the Federal Board of Elite Sports and on state level by the state committees for elite sports.

◆ The Federal Republic of Germany does not take over any responsibility for contents and success of acting. It supports by subsidies, i.e. it finances tasks for which the responsible units, namely the unified community of sportsmen (clubs and associations) do not have the necessary funds. Influencing control on young elite sport is practised by allocation of funds and by cooperation of free sport with schools, however mainly restricted to the lowest level of talent support. It has to be noted that support of the young on the part of the government is mainly practised by the individual states and communities which is regionally handled very differently.

◆ The following deficits can be detected in Germany’s talent system of today:

1. Talent identification is more or less left to chance (compare CARL 1988, MARTIN et.al. 1999), respectively possible measures are not implemented systematically. One is usually working on the assumption that the club is so attractive for the population that a sufficiently large number of children will “automatically” turn to the club.

2. A further problem consists of the not adequately developed cooperation between school and club. Equivalent resources can be assumed in this field, as well (compare BRETTSCHEIDER / KLIMEK 1998).

3. In talent selection there is a lack of orienta-
tion towards fixed test parameters. This is true because in the course of a certain prognosis reliability, it is inevitable to orientate oneself by objective criteria.

4. The inclusion of parents, respectively the support of parents as a central performance influencing factor is missing or are inadequately pronounced.

5. Academic and professional careers are poorly safeguarded.

6. However, the empirical data basis on these aspects has to be called rather weak (compare EMRICH/FESSLER/KNOLL 1999).

In order to approach at least some of these problems and questions a glance at other national talent systems should be permitted. Some nations, e.g. Australia, have succeeded in implementing a system which enables an efficient, effective and hence successful talent identification, talent search and talent support. There are surely a number of good models of talent identification, search and support, however, only a few nations have been successful in implementing these in the long run.

In this article the authors are mainly focussing on two questions:

◆ Which different kinds of talent systems are there and in which social systems are they implemented or have they been implemented?

◆ Which aspects were the guarantors for the success or failure of these systems and which possible conclusions have to be drawn from them for a future talent system in Germany?

2. Definition of Terms

First of all the terms, as used by the authors in the following text, shall be defined (see table below, following WARR 2000).

Definitions

◆ Talent identification as a screening of children and adolescents using selected tests of physical, physiological and skill attributes in order to identify those with potential for success in a designated sport.

◆ Talent selection is the screening of athletes currently participating in a sport using different tests in order to identify those most likely to succeed in that sport.
Talent development is defined as following the talent identification/selection process the athlete must be provided with an adequate infrastructure to enable them to develop to their full potential.

It is important to the authors to point out the difference between talent selection and talent identification as both will take a central role in the course of this article. Talent identifications refers to a systematic examination of children and youths, among others in schools, to discover sportive talents for various sports. Talent selection refers to the discovery of sportive talents for a certain sport. In the end talent development is the process that follows talent identification and talent selection. Only this process makes it possible, assuming an adequate infrastructure, to develop the athletes to their full potential. In the following section existing programmes (TID) are going to be introduced shortly, focussing on the Australian TALENT SEARCH Programme.

3. Existing TID Programmes

Some of the best developed TID programmes existed, respectively exist in the former Eastern Bloc Countries (e.g. GDR, USSR and China) (compare HONG WU 1992, PELTOLA 1992, HARTMANN 1997). Their system, their cooperation with schools and implementation in the education of movements was surely unique in comparison to other countries. On the other hand it is quite clear that these programmes could only be put into practice under the given social systems in these countries.

In the following the main characteristics of talent identification and development shall be presented shortly using the example of the GDR (compare ROST 1991, HARTMANN 1997). The programme consisted mainly of three stages (compare HARTMANN 1997):

In the first step equivalent aptitude tests were carried out at roughly 5000 schools of the former GDR at pupils (n = roughly 230 000) at the age of 8 to 10 years. Among others body height, body weight, agility, strength and the attitude towards sports was measured. If the norms were fulfilled, respectively if one counted those, who had done extraordinarily well in a test, one was offered the possibility to practise at a training centre. This phase lasted for roughly 2 to 3 years and about 10 per cent of the original sample were admitted. Medical check-ups every half year, an extensive staff of coaches and persons in charge, as well as central training programmes were characteristic of that phase. After one year roughly 33 per cent of the athletes dropped out of this process (compare HARTMANN 1997). Having fulfilled equivalent performance norms it was possible afterwards for children to change to youth sport schools (KJS). About one per cent of the original sample made this, and a lengthy procedure until the final admittance started. Special characteristics of the KJS were extraordinary good training facilities, continuing medical care, an extensive staff of coaches and persons in charge, as well as the possibilities of extending school, of separate lessons and lessons with special training measures.

In other nations, as well, talent development programmes have been initiated, e.g. in Finland and in Sweden (compare PELTOLA 1992). The greatest deficit of these programmes probably lies in the lack of uniform and standardised talent identification and talent selection. Further considerations can be found in the example of New Zealand (compare MC GLYMONT 1996), where intended courses of action were not followed. They are now planning to follow the Australian model. Here and there one can find programmes, e.g. in Quatar, in which talent identification and selection is carried out on the streets and in backyards, due to the given circumstances. One merely relies on the “good eye” of the coaches, respectively scouts (compare PELTOLA 1992).

In recent times, i.e. at the beginning of the 90s, Australia began to develop and implement a TID programme, which can be called extremely successful. This programme is called NATIONAL TALENT SEARCH (compare HOARE 1998). In the following section this programme shall be described in more detail. It has been implemented for seven years and in certain areas it shows strong parallels to the programme of the former GDR. Due to the implementation in a pluralistic social system derivations and consequences for Germany are rather permissible.

4. The TALENT SEARCH Programme

The origin of the TALENT SEARCH programme lies in the year 1988, when a programme for the
identification and development of rowers was initiated by the Australian Institute of Sports (compare HAHN et al. 1995). The success of this programme led to an increasing interest of other sport associations to take part in this programme (e.g. athletics and cycling). In the end this success and the allocation of the Olympic Games to Sydney in 2000 led the Australian government to calling the TALENT SEARCH programme into being in 1994.

Principles of the Programme

The TALENT SEARCH programme consists mainly of three principles:

◆ Talent identification and development is seen as an offer, respectively a service to young athletes, who have been identified as a talent and are ready to take up the path of serious sports.

◆ The relatively low number of inhabitants in Australia (c. 19 millions) makes it necessary to carry out talent identification systematically, in order not to lose any talents (“slip through the net”). Likewise one cannot afford to lose any talents through too much or wrong training, which makes a high number of qualified coaches necessary.

◆ TALENT SEARCH is not needed in all sports. There are a number of sports in which a good talent development and selection is carried out already and where there is a sound basis. TALENT SEARCH is rather meant for those sports who have a low number of participants at their disposal, respectively who have a weak basis.

Starting from these principles the persons in charge had to deal with the question for which sports TALENT SEARCH would be a possibility. The following arguments were the basis of these considerations (compare HOARE 1995; 1998):

◆ Such sports, in which anthropometric and physiological parameters play a decisive role, as these are easier to measure and hence talents are easier to identify (e.g. rowing). In sports like archery or in many team sports, where technical and tactical qualities and skills are dominant, they can only be measured with difficulty or with much technical apparatus.

◆ Olympic sports that have a chance of winning medals at Olympic Games. The following sports finally took part in the TALENT SEARCH programme: athletics, cycling, swimming, water polo, canoeing, rowing, triathlon, weight lifting. More than 40 per cent of all medals at the Olympic Games were given away in these sports.

How has one proceeded? Which phases, i.e. steps did children and youths have to go through until they were admitted to sport development?

Sequence, respectively Structure of the TALENT SEARCH Programme

The programme falls into three parts. In the first phase the actual talent identification takes place, in the second phase a further series of sports specific tests are carried out with the children and youths. In the case of aptitude they are admitted to the talent development programme in phase three (illustration 1). As shown in table 1, it was and is the aim to

Illustration 1: Sequence and Structure of the TALENT SEARCH programme

- phase 1: tests with pupils between 14 to 16 years of age at possibly all schools of Australia (c. 2000)
- Leisure or Club sport
- State TALENT SEARCH coordinator (STSC) selects athletes for phase 2
- phase 2: carrying out sport specific tests (e.g. sprints for athletics)
- phase 3: carrying out sport specific tests on national or regional level at a Sport Institute or Sport Academy
In phase equivalent sport specific tests are carried out (compare GORE 1998), to check the validity of the first test and to gain more detailed data on the individual athlete.

Once this step has been taken, as well, talks with the parents are held and the athlete is presented the possibility to practise at a State Institute or a State Academy within the scope of a development programme (phase 3). These institutes are equipped with an excellent training infra structure and cooperate closely with the sport research facilities at the institute or with the Australian Institute of Sport in Canberra. Those pupils, respectively athletes who are not selected, are requested to take part in equivalent leisure sport or club sport activities, respectively to keep on playing sports individually (compare illustration 1).

The success of Australian serious sports or top sports at Olympic Games or World Championships cannot merely be explained by the TALENT SEARCH programme solely. The programme has surely not been implemented long enough for that. However, if one takes a look at the success of the TALENT SEARCH athletes of the past five years in the field of youth or junior championships on national or international level, one can register a significant increase in the accumulation of placing and titles (compare table 2).

### Table 1: Imparted Schools and Number of Athletes

<table>
<thead>
<tr>
<th>schools / phases</th>
<th>year (number of involved sports)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1994 1) (10)</td>
</tr>
<tr>
<td>imparted schools</td>
<td>800</td>
</tr>
<tr>
<td>phase 1: tested children and youths</td>
<td>200 000+</td>
</tr>
<tr>
<td>phase 2: tested athletes</td>
<td>20 000</td>
</tr>
<tr>
<td>phase 3: number of athletes in the development programme</td>
<td>400</td>
</tr>
</tbody>
</table>

1) HOARE 1995, 2) HOARE 1998

### Table 2: Success

<table>
<thead>
<tr>
<th>success</th>
<th>years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1998 1)</td>
</tr>
<tr>
<td>top 3 placing at YWC 3)</td>
<td>14</td>
</tr>
<tr>
<td>participants at YWC</td>
<td>32</td>
</tr>
<tr>
<td>winners at national championships</td>
<td>134</td>
</tr>
<tr>
<td>top 3 placing at national championships</td>
<td>312</td>
</tr>
</tbody>
</table>

1) HOARE 1998, 2) Australian Sports Commission 2000, 3) Youth World Championship

1) sitting height has proven a very good parameter for some sports like e.g. weight lifting or canoeing (compare NORTON / OLDS 1996)
5. Discussion

Success and failure of a talent system can be explained with many things. In the example of the TALENT SEARCH programme it shall be made clear that it seems possible to carry out systematic talent identification and development in a pluralistic social system. Parallels with the system of the GDR are clearly recognizable.

The following question arises in order to draw conclusions from the programme for Germany’s present approach: What are the main reasons for the success of such a programme?

◆ All levels, i.e. starting with leading positions to state presidents, the representatives of sport associations, of schools etc., have to be in the same boat and have to take joint action to put it into practice.
◆ Appropriate training and educational facilities have to be available.
◆ The number of pupils who are willing to participate in such a programme, respectively the number of the sample that is at hand for the tests.
◆ An appropriate competition structure (compare KYUNG-WONG 1996).
◆ The age and sex of the tested pupils, respectively athletes. In Australia phase 1 of the talent identification is started at the age of 12 to 14, whereas in the GDR it was already started at the age of 8 to 10. In some sports one has to and does start much earlier (e.g. gymnastics, figure skating) if one strives to get world class athletes.

Some of these five items surely need to be discussed in more detail, e.g. the age group, mentioned in the last item, and the influence of pubescence on the test results or the advantages of a late start of top sports in the context of the burnout syndrome. Nevertheless, the decisive item is the first one. Australia has been successful in bringing everybody together and having round-table talks so that a strategy was jointly elaborated and afterwards put into practice. This did not always proceed without obstacles. Problems with the budget and with some states had to be solved. To this day not all Australian states are taking part in this programme. Nevertheless, other countries are now trying to make use of this knowledge and these experiences and to establish such a system in their turn with Australian help (e.g. South Africa, Singapore, Great Britain and New Zealand).

6. Outlook

Certainly the success of Australian sport is not merely based on the TALENT SEARCH programme. The complementary strategy rather seems to be responsible for the fact that Australia is the leading sport nation in the world in relation to its population (compare COMMONWEALTH OF AUSTRALIA 1999). Complementary strategy meaning the TALENT SEARCH programme on the one hand (systematic talent identification) and various programmes of particular clubs and associations (talent selection) on the other, with subsequent supply of both to a well-balanced talent development programme. The authors believe this complementary strategy to be applicable in Germany, as well. A number of sport associations would have to cooperate and get such a project started under common leadership. Such a TALENT SEARCH programme similar to the one in Australia would make sense for such sports that show a low number of members, respectively do not have good recruiting possibilities. Team sports can also be integrated, which was done in Australia, when basketball was included with tremendous success in 1998, after the equivalent elaboration of identification criteria (compare HOARE 2000). Building up an equivalent infrastructure, respectively the coordination departments surely takes some time and money. But if, on the other hand, one keeps in mind the possibilities that the implementation of such a programme offers, the following saying should be permitted: It’s worth it!