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# Quality Management in Talent Identification, Selection, and Development

## A comparative analysis of TID systems

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### 1 Introduction

Quality management in sport is a rarely discussed topic in the area of sports science. Especially, if it is used in the range of health and sport (Boes, Brehm, Oppen & Saam 2002; Huber 2000). Surprisingly, the topic of quality management has not emerged earlier in elite sports, although certain quality criteria have been emphasized in elite sports for years. The present approach is first to systematically apply quality management systems in order to provide a foundation for an understanding on a multidisciplinary level in elite sport.

At present, quality management includes the following issues:

- Which quality attributes are characteristic for different talent identification, selection and talent development (TID) systems regarding former TID-systems (GDR) as well as present-day systems (Germany, Australia, USA)?
- Which, if any, quality management systems are presently in use at the national and international level in talent identification, selection, and development?
- How could such a system be designed for Germany, and how could it be implemented?

These research questions will be investigated by a comparative international research project. The primary aim of this project is to provide suggestions for a modified system of identifying, selecting and developing athletic talent in Germany.

To achieve international success in competitive sport the appropriate structural, organizational, material, and personnel conditions must be provided. Under these circumstances federal and state level support is vital, but the local level also must be considered to be important. The local level of support becomes important because they serve two key functions in the TID scheme: on the one hand they serve as a foundation for TID programs in competitive sports with the collaboration of schools and sports organizations, and on the other hand they constitute the basis of a continuous feeder system to the overall TID

scheme. An efficient elite squad training group and an accompanying development program for elite athletes can not be accomplished without being based on a systematic talent search procedure and an initial talent development plan (Fessler 1999).

According to Carl (1988) the general TID situation of young talent at the upper level of sport in West Germany before the reunification of Germany could be characterized as follows:

- Instead of a standardized system of talent identification, selection and development, there were various individual methods.
- Autonomous Sports organisations have taken responsibility for collecting the TID data, i.e. autonomous sport clubs and sport associations are supervised, educated, and supported at the national level by the German sport association *Deutscher Sportbund*, the Federal Committee for Elite Sport, and by sport associations at the state level (*Landessportbünde*).
- The federal government does not accept any responsibility for the administration and success of the TID programs. Rather it supports existing activities financially such as programs which do not have the required resources to adequately provide for a TID program. Interventions by the federal government in talent identification, selection and development include:
  1. financial support, and
  2. support of the collaboration of free sports organizations with schools. However this is mainly limited to the lowest level of talent promotion. Moreover it must be kept in mind that promotion of talent through the federal government is mainly carried out by the individual German states and the municipalities. Therefore regional differences occur.

Even after the re-unification of Germany in 1990, the existing deficits of TID in Germany continue to occur. This is particularly true for the following issues:

1. Talent selection is carried out on a more or less random basis (Carl 1988; Martin, Nicolaus, Ostrowski & Rost 1999) and rational procedures of TID are not used systematically. For example, it is assumed that local sport clubs are attractive enough for a sufficient amount of young children to join.
2. The lack of collaboration between schools and sport clubs continues to be a problem (Brettschneider & Klimek 1998).
3. The talent selection process is not sufficiently directed towards pre-established standards.
4. Parents are insufficiently included in the TID process.
5. Deficit still occur in securing the children's education and professional career development.

Unfortunately, the empirical data upon which these preliminary statements are based, must be considered as being rather poor (Emrich, Fessler, & Knoll 1999).

Therefore, this project, has been designed to (a) provide an empirical data basis for existing approaches and structures of talent identification, selection and development on both a national and international level and (b) provide a theoretical guided comparative analysis of the data on TID systems should lead to a quality assured TID concept, and (c) finally, this concept can be used to improve existing concepts of TID in Germany and other countries.

## 2 Theoretical Modell

According to our present theoretical model (figure 1) the quality criteria of different TID systems are based on three qualitative variables as introduced by Donnadonian (1966), these are structure, process, and outcome.

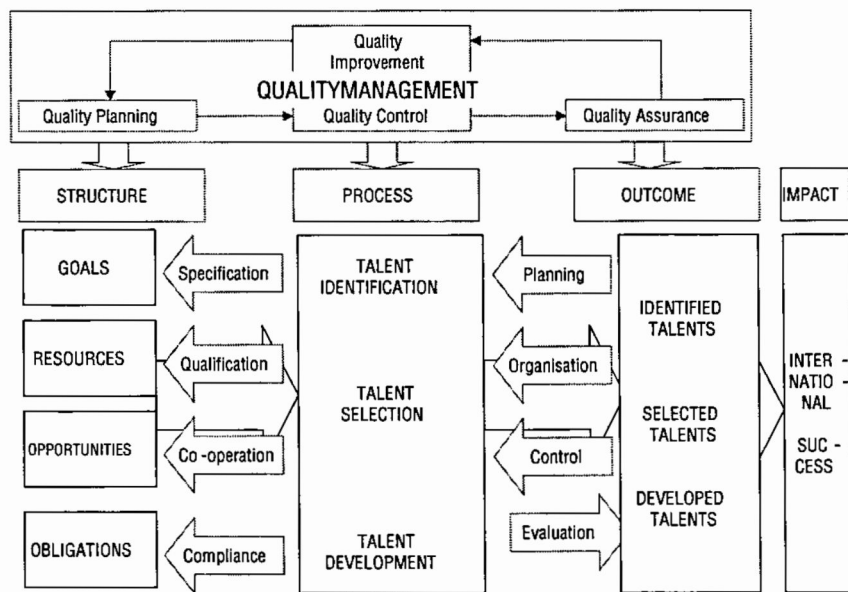


figure 1. The model of quality and quality management in TID.

*Structure* describes the physical, organizational, and other characteristics of the talent identification, selection, and development system and its environment. *Process* means what is actually performed to identify, select, and develop talent. *Outcome* summarizes the achievements of the TID system, e.g. what is the final

outcome of the selected and developed athletic talent and those athletes that dropped out.

### Structure

The theoretical frame work used as a reference for the project was based on von Wright's (1976) logical model of events. This model consists of four key determinants that are important for the structure outcomes: (1) goals, (2) resources, (3) obligations, and (4) opportunities. While von Wright basically refers to individual actions, it was assumed that the transfer of actions to systems, in this case the TID system, was entirely in line with von Wright's theory. The application of von Wright's theory in the analysis of organizations or systems was initially carried out by Ruetten, Lueschen & Lengerke et al. (2000).

The following example will be used from von Wright's determinants of actions to connect his work to the current project. In case of his election as a responsible person for TID (*new opportunities*), a person might intend to implement a new TID-program given that developing this new offer does not require additional *resources*, that it corresponds to present *goals* (e.g. want to support national success at the olympic games 2008), and the *obligations* related to this job. It is possibly that the persons reasoning to implement such a TID-program is backed by his personal goals. However, his "political goals" may possibly be motivation enough if they are directed towards benefits in elite sport or the project falls in line with previously established goals set by a sport organisation. These politically motivated decisions are often the actual cause for the implementation of TID programs. At the same time, political motivations can be pursued by both the individual political representatives and collectives (e.g. parliamentary parties or organised sport groups). Thus, concrete actions usually are not simply determined by personal desires of an individual person, but by the desires of a group or people (e.g. parties, ministries, municipal authorities).

Consequently, we use the term (1) *goals* in the TID context, considering their formal characteristics (e.g. specification of goals in written form or concreteness of goals). Additionally the time frame for applying the goals and their practical relevance will be included. For example, the persons intention to implement a TID program may take into account that the national authorities are competent to get the sport organisations developing respective offers, thus utilising the resources for implementing the TID program. Correspondingly the model includes (2) *resources*, referring to capacities of the system, e.g. personnel and financial resources, as well as infrastructural resources and internal cooperation. With regard to von Wright's theory TID is characterised by a specific set of (3) *obligations*. These are not only related to the personal and professional duties of officials or coaches, but also to the institutional arrangements of the TID system.

Among others, there are more formal obligations, e.g. laws or regulations, as well as obligations concerning professional roles and personal commitment of people in the TID system (e.g. former GDR). (4) *Opportunities* end up being the crucial starting point for these processes. For example, opportunities can result internally from changes in the TID system (e.g. new decision structures) and externally in the inter-organisational settings (e.g. collaborations between schools and sport clubs). Moreover, opportunities for TID may either increase or decrease corresponding to changes in public awareness, engagement of the population, and media interest.

### *Process*

Recommended to Donnabedian (1966) *process* is defined as a set of activities that go on within and between persons involved in TID. The set of activities referred to consists of 3 variables: planning, implementation, and control. (1) Planning refers to the master plan, or big picture, of the training plan. The term (2) implementation includes different methods of carrying out talent identification, selection, and development programs and refers to the actual performance outcome of talent selection tests or the size of training groups. (3) Control involves the procedures for auditing talent identification, selection, and development programs, i.e. the documentation of training and selection tests.

### *Outcome*

International success at the world championships or Olympic games is generally considered as the ultimate goal of TID (Hartmann 1997; Hoare w.y.). But from a quality management point of view, outcome indicates the satisfaction with the achieved effects of the TID system. Consequently outcome in the present context focuses on the assessment of the system by its participants (officials, coaches, and athletes).

As pointed out earlier, the main purpose of this project was to compare different TID systems under both perspectives: Their qualities and their particular quality management activities related to these qualities.

Quality management is defined as

“All activities of the overall management function that determine the quality policy, objectives, and responsibilities, and implement them by means of quality planning, quality control, quality assurance, and quality improvement within the quality system” (DIN 1995 p. 15).

For the purposes of this paper, quality management includes the functional view of activities within the talent system. A systematic process analysis replaces an incomplete or unstructured description of the processes. The processes are thus carried out as closed loop systems for improvement which are verifiable by

experts through corresponding audits. An equivalent documentation process makes it easier for new staff (coaches, assistants, and officials) to familiarize themselves with the prevailing conditions and with their own specific assignments.

To evaluate quality management more objectively quality indicators<sup>5</sup> are needed. In this case an indicator is a quantitative measurement that can be used to monitor and evaluate the quality of important administrative, management, support functions, etc. that effect TID outcomes. An indicator is not a direct measure of quality. Rather it is a tool that can be used to assess performance that can direct attention to potential performance issues that may require more intense review within a system (Blumenstock 1994).

As shown in figure 1, possible indicators are:

- Specification
- Qualification
- Collaboration
- Compliance
- Planning
- Organisation
- Documentation
- Evaluation

The first indicator deals with the *specification* of goals. The existing goals which can be acted upon must be specified, i.e. if talent should be exclusively identified according to physiological and anthropometric criteria, or if it shall include other aspects. In addition the specification of the time frame applying to the goals and their practical relevance must also be determined.

The second indicator deals with the *qualifications* and the demands placed on coaches and their assistants. What is the structure of the qualification process? In many sport associations in Germany a coaches diploma at the German Coaches Academy in Cologne is needed as qualification for a national coach. What are the contents of those qualification measures? For example, Sport Psychology is under-represented during the qualification process in many sport associations in Germany (Seeliger 2002). Is there any additional qualification available? Are there any other factors that need to be included in this process?

The third indicator deals with the degree and the quality of the internal and external *collaborations* and the communication process, e.g. the collaboration between schools, sport clubs, and public relations. This aspect mainly focuses on the following issues:

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5. RUMBA-Rule: For each indicator it is necessary to be relevant for the selected problem, understandable for providers and athletes, measureable with high reliability and validity, behaviourable i.e. changeable by behaviour, achievable, and feasible (Reerink 1990).



Were there partnerships that have been established with clubs, schools and the business community? Was there relevant documentation available for the participants? Was there equivalent documentation available for coaches (curriculum)? Are there any supporting measures such as nutritional advice, and what are the costs for implementing these concepts? How many clubs and associations either support the concept or are integrated in it?

What is the *compliance* of groups which are included? Are there some clearly defined contents? Are those contents easily understood by participating groups?

The indicators *planning*, *organisation* and *control* means:

What has actually been planned in the process of TID?

- How is it actually organized?
- How is it controlled?

The last indicator focuses on *evaluation*. Are there any relevant test manuals, and are there any documents or publications containing previous results or relevant methods? Furthermore, this includes questions about the development and implementation of plans with scientific standards and the documentation of results.

### 3 Objective and methods

Within the scope of a comprehensive comparison of systems, the differences and similarities of various TID systems from various social systems were evaluated in this study (compare figure 2).

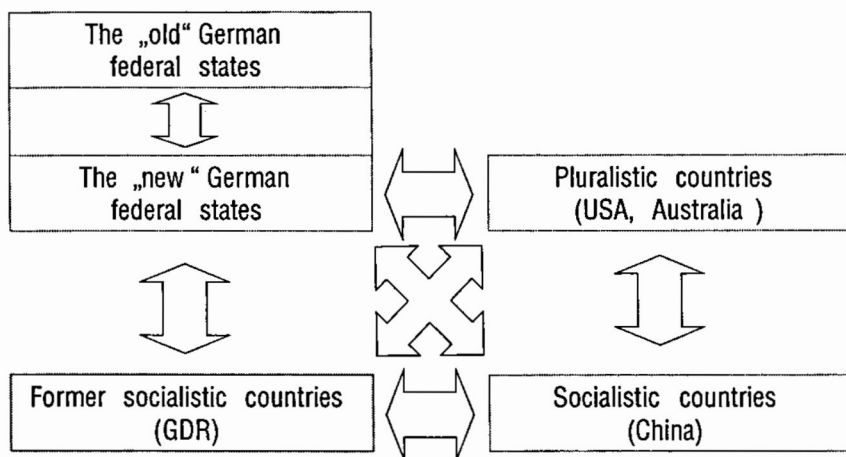


figure 2. Comparison of the various social systems.

The question regarding the use of quality management is:

How are the quality variables and indicators mentioned above (goals, specification, obligations, compliance, networks, etc.) represented in different pluralistic nations (e.g. USA vs. Germany) and in pluralistic vs. non pluralistic nations (GDR, China)?

The scope of this project will include the investigation of four different sports:

- Gymnastics
- Swimming
- Track and field
- Volleyball (Team sport)

These sports have been selected, because of their Olympic representation. Furthermore, they are popular in most of the evaluated nations and provide different demands in TID.

To summarize, three objectives were pursued in the present study:

The first objective is to analyse the possible variables, determinants, and indicators of talent systems and their representation in different countries (see Table 1) and at different levels (national, state, and local level) from a qualitative point of view. Phase 1 results have been presented with this booklet.

The second objective is to develop a self-administered questionnaire for a larger, more quantitative, data collection scheme. The questionnaire will be based on the results of the qualitative study. The current state of TID in different social systems (see figure 2) will be analyzed more objectively. Furthermore pros and cons of the various systems and levels will be discussed.

The third objective is to answer the question of whether or not consequences can be derived from this international comparison for the development of a quality managed TID system in Germany. Further questions will deal with the issue of how such a modified and optimized TID system could be designed. Finally, such a system might be implemented as a pilot project at the local level.

The application of a modified TID system as formulated in the third objective should be based on the results of the first two phases. It is meant to allow the implementation of an optimal talent system and its scientific evaluation with regard to success or failure.

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