

The Instrument  
for  
specialists  
in job  
rehabilitation  
and integration

**IMBA**

*Introduction*

IMBA

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# IMBA

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# Foreword

The documentation procedure IMBA, an instrument of promoting the integration of disabled people into working life, is the outcome of longstanding research work by an interdisciplinary team from the fields of industrial medicine, labour research and psychology. It was developed on behalf of the Federal Ministry of Labour and Social Affairs.

As this IMBA version models itself on the concerns and demands of practical use, it is suitable for many fields of application. As far as the forerunners of this current version are concerned, the focus was on the development of a comprehensive scientific basis. Thus, during this development, quality criteria were formulated which reappear in the European resolution of the so-called Job Assessment Procedures for the Integration and Rehabilitation of Disabled People (AP95/3, and also in the Publications of Europe, 1997). Beyond that, current trends in the medical and rehabilitation classification (ICD-10 and ICDH version 2) were taken into account as well as scientific findings and practical experience in the field of assessment in medical

and job rehabilitation. The current, practice-oriented version of the IMBA instrumentation is based on the above-mentioned findings and experience as regards composition, structure and user guidelines. An additional method is now available which was developed from the IMBA procedure with its focus on the documentation of key qualifications (MELBA, 2<sup>nd</sup> edition, 1998).

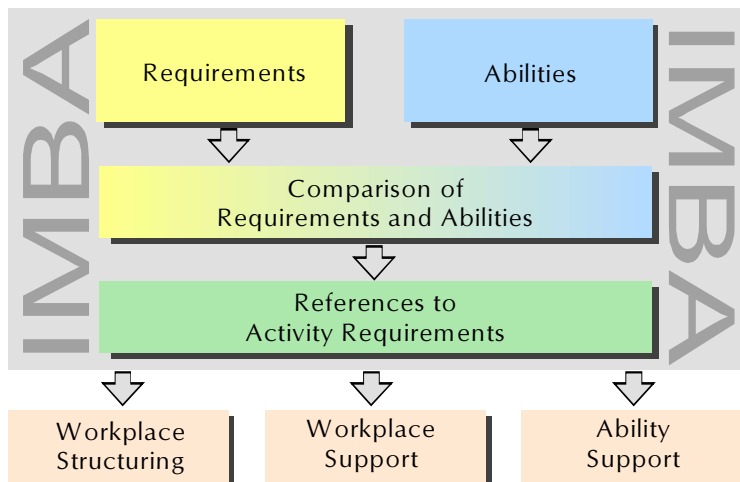
The introduction in hand gives the reader an overview of the structure and content of IMBA and points to its possible fields of application as regards work rehabilitation and integration. To enable the reader to get a quick overview, the comments have been kept short. Studying this introductory text cannot and is not meant to replace a course of training in the application of this procedure. For a sensible use of IMBA, an intensive analysis of the working material, as well as a thorough consideration of both the limitations and the possibilities of the method, are necessary.

# Introduction

The social standing of disabled people in our society is dependent on, among other things, the question as to whether they are able or allowed to participate in working life. Against the background of the current job situation, the question of suitable placement becomes the central issue. According to SchwbG § 14, Abs.2 (§ 14, section 2 of the German Disability Act) the basic idea of suitable placement is met when a job is offered in which the handicapped person can make full use of and further develop his or her abilities and qualifications. In order to achieve the best possible job placing under the given circumstances one needs detailed information of the requirements of the workplace as well as the working ability of the person concerned.

An **instrument of supporting an optimal placing** must therefore both allow the documentation of work ability and the documentation of the requirements at the workplace.

In addition, such an instrument must also allow for potential comparisons between workplace requirements and working abilities. On the basis of these comparisons, the user can, if necessary, deduce effective measures e.g. for the structuring of the workplace or the improvement of working abilities. The following illustration helps to demonstrate the procedure.



The procedure of profile comparison.

The IMBA procedure meets the above-mentioned requirements and is therefore an efficient instrument as regards placement decisions:

IMBA is based on a **standardized, systematic catalogue of distinguishing characteristics**. With this catalogue, work-related requirements can be described with the help of requirement profiles and, likewise, working abilities can be described with the help of ability profiles – using the same distinguishing characteristics. At the same time, the characteristics have been chosen in such a way that they are universally valid. A requirement profile can therefore be provided for every kind of work, independent of the sector of business, with these same characteristics also being appropriate for documenting the working abilities of every person, irrespective of a diagnosis and irrespective of qualifications. By the choice of these distinguishing characteristics and by their definition, IMBA has become an instrument which, by means of its common language, also creates a common basis of assessment for all its users.

The assessed characteristics can be used for a profile comparison. In this profile comparison requirements and abilities are directly compared and the different rehabilitation experts receive information which – together with other aspects - serves as a basis for decision making.

In particular, it can be recognized if action has to be taken and if respectively appropriate measures have to be implemented.

Thus, IMBA is a practicable procedure which can be employed as regards jobs in the fields of

- prevention,
- rehabilitation and
- integration

and represents a suitable instrument for the **documentation of the state and course** of intervention measures.

On the one hand, the **prevention** refers to the early recognition of change in performance with the goal of counteracting a threatening separation. On the other hand, prevention also means the recognition and avoidance of too much strain which, as it is a health hazard, can lead to work-related physical and mental illnesses.



In contrast, work **rehabilitation** means the recovery process of a disabled person to become fit for work again, e.g. after a longer illness or after an accident. Work rehabilitation focuses on the development and support of job-related abilities. The final aspect of re-integration is the search for a suitable occupation if the previous job cannot be carried out any more.

**Work integration** means the placing of a disabled person in a job which suits his or her abilities and which enables this person to participate in working life on an equal basis to a non-handicapped employee.

# IMBA – the Instrument

The documentation procedure IMBA is based on the principle of the profile comparison method and consists of three elements – the **requirement profile**, the **ability profile** and the **profile comparison**.

## Requirement Profile and Ability Profile

The requirement profile of the workplace as well as the ability profile of a disabled person both consist of **job-related/relevant characteristics**. They are categorized in the following complexes of characteristics:

- Body Posture
- Bodily Locomotion
- Body Part Movement
- Information
- Complex Physical Characteristics
- Environmental Influences
- Occupational Safety
- Work Organisation
- Key Qualifications

**IMBA**

**Ability Profile**  
Main Characteristics

Name: \_\_\_\_\_ Job No.: \_\_\_\_\_  
 License: \_\_\_\_\_ Date: \_\_\_\_\_  
 Diagnosis: \_\_\_\_\_

**Occupational Safety**  
 Accident Record: \_\_\_\_\_  
 Wearing Occupational Safety Equip: \_\_\_\_\_  
 Working Time (per day/week): \_\_\_\_\_

**Body Posture**  
 Calf: \_\_\_\_\_  
 Standing: \_\_\_\_\_  
 Kneeling/Crouching: \_\_\_\_\_  
 Lifting: \_\_\_\_\_  
 Self-overhead: \_\_\_\_\_  
 Arms in/overhead: \_\_\_\_\_  
 Arms in/overhead: \_\_\_\_\_

**Body Location**  
 Walking: \_\_\_\_\_  
 Crawling: \_\_\_\_\_  
 Crouching: \_\_\_\_\_

**Body Movement**  
 Neck Movement: \_\_\_\_\_  
 Trunk Movement: \_\_\_\_\_  
 Arm Movement: \_\_\_\_\_  
 Hand/Finger Movement: \_\_\_\_\_  
 Leg/Foot Movement: \_\_\_\_\_

**Information**  
 Vision: \_\_\_\_\_  
 Audition/Speech: \_\_\_\_\_  
 Touch: \_\_\_\_\_  
 Taste: \_\_\_\_\_  
 Smell: \_\_\_\_\_  
 Pain: \_\_\_\_\_  
 Temperature: \_\_\_\_\_  
 Balance: \_\_\_\_\_  
 Hearing: \_\_\_\_\_  
 Vision: \_\_\_\_\_  
 Audition: \_\_\_\_\_  
 Touch: \_\_\_\_\_  
 Taste: \_\_\_\_\_  
 Smell: \_\_\_\_\_  
 Pain: \_\_\_\_\_  
 Temperature: \_\_\_\_\_  
 Balance: \_\_\_\_\_  
 Hearing: \_\_\_\_\_

**Complex Physical Characteristics**  
 Lifting: \_\_\_\_\_  
 Carrying: \_\_\_\_\_  
 Pushing/Pulling: \_\_\_\_\_  
 Pressing: \_\_\_\_\_  
 Endurance: \_\_\_\_\_  
 Reaction: \_\_\_\_\_  
 Balance: \_\_\_\_\_  
 Muscle: \_\_\_\_\_  
 Motor: \_\_\_\_\_  
 Activity: \_\_\_\_\_

**Environmental Interests**  
 Climate: \_\_\_\_\_  
 Sound/Vibration: \_\_\_\_\_  
 Vibration/Shaking: \_\_\_\_\_  
 Light: \_\_\_\_\_  
 Vibration/Shaking: \_\_\_\_\_  
 Clashes/Aggravated: \_\_\_\_\_  
 Lapses/Slips: \_\_\_\_\_

**Rating Scale**  
 1. Not at all  
 2. Only a little  
 3. Somewhat  
 4. High  
 5. Very high  
 6. Detailed Analysis required

**Job/Task Method (JAT)**  
 A. No Judgment  
 B. Substantial  
 C. Considerable  
 D. Complex  
 E. Difficult  
 F. Very Difficult

**Requirement Profile**  
Main Characteristics

Competency: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_

**Occupational Safety**  
 Accident Record: \_\_\_\_\_  
 Wearing Occupational Safety Equip: \_\_\_\_\_  
 Working Time (per day/week): \_\_\_\_\_

**Work Organization**  
 Shift Work: \_\_\_\_\_  
 Night Shift: \_\_\_\_\_  
 Personnel/According: \_\_\_\_\_  
 Time Difference/Overhead: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Control: \_\_\_\_\_  
 Workplace: \_\_\_\_\_

**Work Organization**  
 Working Time (per day/week): \_\_\_\_\_

**Remarks**  
 \_\_\_\_\_

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## IMBA Requirement and Ability Profile

In addition, some of these characteristics offer the possibility of an even more detailed documentation of requirements and abilities in order to be able to describe more complex combinations. For this purpose appropriate **detailed analysis forms** can be added to the requirement profile and the ability profile.

Each characteristic in the two profiles and in the detailed

analysis forms is clearly **defined** both as a requirement characteristic and as an ability characteristic. To enable the documentation of the respective level of requirement or shape of ability the individual characteristics are backed up with an **assessment range** consisting, as a rule, of six stages.

Where necessary, supplementary references and advice in the assessment of distinctive characteristics support the assessment of the requirement standards and ability standards. The following illustrations demonstrate this by the example of the characteristic of *vision* taken from the characteristic complex *information*.

### ***Vision***

**This requirement consists in having to optically receive information. Demands upon the following partial functions are significant: visual acuity near and far, depth perception, field of vision, colour vision and twilight vision.**

Definitions of Requirements by the characteristic: *Vision*

## ***Vision***

**This is the ability to optically receive information. Demands upon the following partial functions are significant: visual acuity near and far, depth perception, field of vision, colour vision and twilight vision.**

Specially note: the various forms and expressions of faulty vision (myopia etc.), the dioptric figure for vision correction, and malpositioning of the eyes.

Further information for the assessment of the expression of the characteristics is found in the recommendations of the German Ophthalmological Society.

Definitions of Abilities by the characteristic: Vision

For a more accurate documentation of these requirements and abilities the detailed analysis forms offer the following characteristics:

- near acuity
- far acuity
- depth perception
- field of vision
- colour vision
- twilight vision

The image shows four overlapping forms titled 'IMBA Detailed Analysis Requirement Profile'. The forms are numbered 1, 2, 3, and 4. The most prominent form (numbered 1) is titled 'Detailed Analysis Requirement Profile' and includes sections for 'Basic Data', 'Near Vision', 'Far Vision', 'Depth Perception', 'Field of Vision', 'Colour Vision', and 'Twilight Vision'. Each section contains a grid for recording data. A large yellow vertical bar is present on the right side of the form.

IMBA Detailed Analysis Form

The IMBA procedure offers the user three elements: requirement profiles, ability profiles and profile comparisons. When using IMBA it is, however, not necessary to work with all three elements at the same time. Depending on the problem, it may in some cases be even more practical to use the requirement profiles and ability profiles independently of each other and to do without the profile comparisons.

## **Making of Profiles**

In order to draw the profiles, the relevant data have to be recorded. Following this diagnostic phase, the results - i.e. the **assessment** of the respective characteristic distinctions is documented in profile forms.

The guidelines of the IMBA method refer to the documentation of the collected and evaluated information. As regards the diagnostic methods IMBA does not give any instructions. Thus, in spite of the manifold methods in existence, a concerted documentation standard is nevertheless ensured.

In principle, even the most different statistical and diagnostic instruments can be included in the collection of data for IMBA.

When providing requirement profiles it is appropriate to take the following data sources into consideration:

- Written material on the workplace (workplace description, statistics etc.),
- Observations at the workplace,
- Interviewing the employee, a superior, a colleague,
- Taking measurements and recordings at the workplace (sound, intensity of light, weights etc.).

For the provision of ability profiles a variety of diagnostic instruments is available which can be worked into the documentation of the abilities at issue:

- A medical questionnaire and medical check-up,
- Information from the employee him-/herself,
- an impartial medical history and
- the results of technical tests (i.e. with the help of FCE-systems)

All these factors give insight into the physical condition of the employee.

Within the framework of the psychological appraisal

- an exploration or a medical history,
- an impartial medical history,
- behavioural observations as well as
- the completion of standardized tasks and psychometric tests

can be called upon. The data collected on the basis of various methods are then interpreted by means of the IMBA material (definitions, assessment advice and assessment keys). The information obtained is then transferred into the profiles thereby documenting the respective requirement and ability grade(s).



# Profile Comparison

The definitions co-ordinated with each other as regards content, the identical rating scale and the standardized structure of the requirement and ability profiles make possible a direct profile comparison.

On the **profile comparison forms** designed for this purpose, the divergence between the individual characteristics

Main Characteristic Form  
Profile Comparison

of the applied requirement and the ability profiles as regards over- or under challenging and as regards their value becomes immediately transparent. The decision whether the divergence is significant enough to call for action has to be taken **individually in each case**.

A profile comparison is not restricted to a comparison between a concrete requirement- and a concrete ability profile. Within the scope of IMBA other comparisons are possible, too. For example, as a software IMBA offers the possibility of comparing different requirement profiles with each other. By comparing several ability profiles which have been provided for one person at various times/ points in time, information can likewise be gathered on the course of rehabilitation or the success of applied promotional measures.

## **The MELBA method**

In the contexts of job integration, rehabilitation and prophylaxis, questions concerning the analysis of **psychological** abilities and requirements are often asked.

In order to take this intentional focussing on particular fields of job-related abilities and requirements into account, the MELBA procedure (characteristic profiles for the integration of people with a change in performance or impediment at work) has been designed as an **independent method**. Apart from single characteristics taken from other

IMBA characteristic groups it contains the psychological characteristics of the group key qualifications.

#### Requirement Profil Form of the MELBA method

In the software version of IMBA the provision of a MELBA profile is optional. Vice versa, MELBA profiles can be integrated into IMBA profiles.

The MELBA method has already been established in many fields of application.

# Applications

IMBA can be employed within the framework of job integration, rehabilitation and prevention and makes it easier for a number of practitioners to work on respective problems. Users, among others, are work organizers, physicians (particularly rehabilitation-, social medicine-, and company doctors) ergotherapists, specialists in work safety, health

## Fields of Application

- ◆ rehabilitation clinics
- ◆ in context of expert witness
- ◆ sheltered workshops
- ◆ vocational training centers
- ◆ rehabilitation counseling and medical service of social insurance
- ◆ integration services
- ◆ companies, administrations
- ◆ main welfare institutions
- ◆ professional education centers
- ◆ ...

advisors, physiotherapists, psychologists, rehabilitation advisors of social security bodies, social workers and social educationists, sport therapists, technical advisors of the main welfare institutions (Hauptfürsorgestellen) and employment offices, as well as the teaching staff of the above-mentioned professions.

Correspondingly, IMBA is of practical use in the highly differing organisations and institutions which are concerned with work or medical rehabilitation and integration respectively (see box).

IMBA lends itself among other things to tackling the following problems:

- Finding a workplace which matches the abilities of the disabled person,
- Assessing the requirements at existing workplaces,
- Multi day work capacity evaluation
- Describing the process of rehabilitation,
- Self-assessment and assessment by others as regards abilities,
- Socio-medical assessments and disability evaluations.

The IMBA method consists of the following components:

- Introduction into the IMBA procedure
- IMBA definitions of requirements
- IMBA requirement profiles

- IMBA definitions of abilities
- IMBA ability profiles
- IMBA documentation forms for the profile comparisons
- Software IMBA 2000

The IMBA procedure is available as a **software** version (IMBA 2000) and in **printed form**.

In addition, a brochure exists in which the links between the IMBA characteristics and the ICD (versions 9 and 10) as well as the ICDH2 are presented.

## **The IMBA Software**

The IMBA software in its network version 2000 enables the user to work with the instrument and all its potentialities quickly and efficiently. This includes, for example, a data base with example profiles of primary labour market jobs.

The following advantages of applying the software are:

1. The software enables a fast, automated comparison of, for example:
  - an ability profile with one or several requirement profiles;
  - ability profiles with example profiles of the jobs available on the primary labour market;
2. The software enables a fast access to comparable cases.
3. The software offers a link with the organization examples on the data base REHADAT.

# IMBA and Quality Assurance

An important concern of the developers of IMBA is the quality assurance as regards all questions concerning IMBA. What, above all, must be ensured in this context is that all users apply the method in the same way. Only thus can a reliable and valid use be guaranteed.

Elements of quality assurance are above all found in the following measures:

- Courses of training
- User licences
- User support

In the **training courses**, the IMBA users are taught the basics and the procedure of how to apply IMBA. They practise statistics, documentation and comparisons of job profiles and abilities and also learn to deduce from the information given if action has to be taken and which measures to apply. Both live and video examples are employed and several training components are on offer with



their focus orientated to the different issues the respective IMBA-users' demands.

Recognized attendance at an IMBA training course is certified by a **user licence**. It is possible to acquire various licences which document precisely which kind of course a user has attended.

Finally, the offer of **user support** can be taken advantage of, whereby the IMBA team supports the practitioner by giving practical on the job advice and the offer of regular meetings for those involved.

More detailed information on offers as regards training and advisory services can be found under the addresses given at the beginning.