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संवेदी विश्लेषण — संवेदी मूल्यांकन  
प्रयोगशाला के कर्मचारियों के लिए सामान्य  
मार्गदर्शन  
भाग 1 कर्मचारियों की जिम्मेदारियाँ

**Sensory Analysis — General  
Guidance for the Staff of a Sensory  
Evaluation Laboratory  
Part 1 Staff Responsibilities**

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## NATIONAL FOREWORD

This Indian Standard (Part 1) which is identical to ISO 13300-1 : 2006 'Sensory analysis — General guidance for the staff of a sensory evaluation laboratory — Part 1: Staff responsibilities' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Test Methods for Food Products Sectional Committee and approval of the Food and Agriculture Division Council.

This Indian Standard is published in two parts. The other part in this series is:

Part 2 Recruitment and training of panel leaders

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'; and
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 5492 Sensory analysis — Vocabulary	IS 5126 : 2016/ISO 5492 : 2008 Sensory analysis — Vocabulary ( <i>second revision</i> )	Identical

In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'.

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*Indian Standard*

**SENSORY ANALYSIS — GENERAL GUIDANCE FOR THE  
STAFF OF A SENSORY EVALUATION LABORATORY  
PART 1 STAFF RESPONSIBILITIES**

**1 Scope**

This part of ISO 13300 provides guidance on staff functions in order to improve the organization of a sensory evaluation laboratory, to optimize the use of personnel, and to improve the efficiency of sensory tests.

It is applicable to any organization planning to establish a formal structure for sensory evaluation. The main aspects to be considered are

- the education, background and professional competence of staff members, and
- the responsibilities of staff members at three different functional levels: sensory manager; sensory analyst or panel leader; panel technician.

These guidelines are valid for all different types of sensory evaluation laboratories, in particular those in industry, in research and development organizations, in service organizations and in the field of official authorities concerned with product control. In principle, it can be assumed that the sensory evaluation laboratory can perform all types of sensory tests. This means analytical tests such as discrimination tests, descriptive analysis (sensory profile), as well as consumer tests (e.g. hedonic tests). The individual profile of sensory activities of an organization determines the boundaries and conditions to be considered for planning and implementing the sensory evaluation laboratory and its staff.

The application of this guidance by the organization is flexible and depends on the needs and possibilities within an organization. For example, personnel might not be available for three levels of staff function and, thus, the duties can be divided among staff accordingly. Also, in a staff of two persons the technical/scientific functions can be shared between a person handling the administrative/management functions and the individual handling the operational functions.

NOTE Elements that are common to all levels of staff, such as ability to maintain confidentiality, where needed, and motivation and enjoyment of the work are not described in this document.

**2 Normative references**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5492, *Sensory analysis — Vocabulary*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5492 and the following apply.

**3.1 sensory staff**  
personnel who fulfil the major functions of a sensory analysis laboratory (administrative/management, scientific/technical and operational)

NOTE 1 The staff may be given titles (such as sensory manager, sensory analyst, panel leaders and panel technicians) but the functional level performed, however, is the primary consideration as various titles may be used (see 3.2 to 3.5 for examples).

NOTE 2 Sensory assessors are not included as staff in this document because their primary function is not related to conducting or managing tests. The role of assessors is described in other standards.

**3.2 sensory manager**  
person with administrative and budgetary responsibility for the sensory evaluation laboratory within the top or middle management level of the organization with respect to the sensory evaluation programme

NOTE This person defines the training, technical, scientific and quality policies for the sensory organization.

**3.3 sensory analyst**  
person who fulfils scientific professional functions, who may supervise one or more panel leaders, design and conduct sensory studies, and who analyses and interprets the resulting data

**3.4 panel leader**  
person whose primary duties are to manage panel activities, and recruit, train and monitor the assessors

NOTE 1 This person may also design and conduct sensory tests, and analyse and interpret data.

NOTE 2 This person may be assisted by one or more panel technicians.

**3.5 panel technician**  
person who fulfils the operational functions by assisting the panel leader or sensory analyst in performing sensory tests, including necessary preparation measures before the tests and activities after the tests (e.g. waste disposal)

### 4 Competencies and responsibilities

Tables 1 and 2 give summaries of staff responsibilities and competencies, respectively.

#### 4.1 Administrative/Management (Sensory manager)

##### 4.1.1 Education and position in the company

To be effective in an organization, the sensory manager should belong to middle or senior management of the company or organization, and should interface with other departments. A background in a product science (e.g. food science), psychology or other related sciences (e.g. chemist, technologist, engineer, biologist) is recommended. The individual should have good interpersonal and management skills and good written and verbal skills.

#### 4.1.2 Competencies

With respect to the different functions, the necessary competencies are the following.

a) **Management competencies:**

- organizational and planning capabilities;
- administrative capabilities (budgeting, reporting, programme updating);
- knowledge of the business and the environment;
- knowledge of the ethics and the control of tests with human subjects;
- knowledge of health and safety requirements.

b) **Scientific and technical competencies:**

- product knowledge (development, formulation aspects);
- technical knowledge with respect to production and packaging;
- knowledge of laboratory systems, including computerized systems and software, if needed.

c) **Sensorial competencies:**

- theoretical knowledge in the field of sensory analysis;
- knowledge of the sensory methodology;
- knowledge of sensory data collection and analysis methods.

d) **Communication/Liaison competencies:**

- contacts with other departments and clients within the organization;
- contacts outside the organization (e.g. clients, industry organizations, authorities);
- writing skills.

#### 4.1.3 Responsibilities

The following list gives examples of possible responsibilities:

- maintaining liaison with all other departments that use sensory information;
- organization and administration of all department activities;
- planning and development of resources;
- planning and supervising the application of quality policy;
- advising on the feasibility of test requests;
- supervision of testing activities;
- provision of progress reports;

- planning and conducting research on new methods;
- planning and supervising of research activities;
- developing and maintaining standard operating procedures.

## **4.2 Scientific/Technical position**

### **4.2.1 General**

In some organizations, the person who has this function is called “Sensory analyst” or “Panel leader”. However, the position of the panel leader for descriptive analysis is a special case with respect to competencies and responsibilities; detailed information is provided in ISO 13300-2.

### **4.2.2 Education and position in the company**

Such a person should belong to middle management in the organization. Because education in sensory analysis is not standardized today, the background required cannot be completely described, but education in a field of product science (e.g. food science) and/or psychology is desirable. The qualification may be achieved through theoretical knowledge and practical experience used in conjunction with specialized short courses in sensory science.

### **4.2.3 Competencies**

With respect to the different functions, the competencies needed are the following.

#### **a) Management competencies:**

- organizational and planning capabilities;
- administrative capabilities;
- knowledge of the business and environment.

#### **b) Scientific and technical competencies:**

- product knowledge;
- technological knowledge;
- science background;
- training in statistics.

#### **c) Sensorial competencies:**

- theoretical knowledge in the field of sensory analysis;
- knowledge of sensory methodology;
- practical experience as panel leader or panel member;
- capability to plan, carry out and evaluate sensory tests;
- interpretation and reporting of results.



d) **Leadership competencies:**

- group leadership capabilities;
- good interpersonal communication skills;
- good decision making;
- able to motivate a panel.

Some competencies may require assistance from other trained professionals. For example, designing studies and analysis of data may be handled by other consulting, part time or full time individuals.

It is imperative that the person in a scientific/technical position has basic understanding of areas such as statistics and is able to interpret data based on sound principles.

#### **4.2.4 Responsibilities**

The following list gives examples of possible responsibilities:

- carrying out the duties assigned by the sensory manager;
- selection of test procedures, experimental design and analysis;
- coordinating new assessor orientation and screening;
- recruiting, selecting and training of assessors;
- assisting with the planning and development of resources;
- collaborating with others in the organization;
- determining the needs for special panels;
- establishing test schedules;
- supervising all phases of product preparation and testing;
- training subordinates to handle routine assignments;
- analysing data and reporting results;
- preparing articles for publication;
- developing and updating all programme plans;
- planning and conducting research on new methods;
- coordinating new projects.

### **4.3 Operational position (Panel technician)**

#### **4.3.1 General**

These positions are necessary to carry out sensory tests from preparation measures to waste disposal. Special competencies with respect to the educational background may be of interest (e.g. basic chemistry training for safety purposes, knowledge in laboratory methodology to prepare solutions properly).

#### **4.3.2 Competencies**

The following competencies are recommended:

- knowledge of the most important sensory tests and how to conduct them;
- sense of responsibility;
- conscientiousness;
- ability to follow detailed instructions;
- attention to detail;
- organization and planning skills;
- prompt and good sense of timing;
- tact;
- ability to maintain good records;
- knowledge of sanitation/hygiene.

#### **4.3.3 Responsibilities**

Examples of responsibilities are as follows:

- preparation of the test room;
- preparation/arrangement of the samples to be evaluated;
- coding of the samples;
- notification of assessors to attend and monitor attendance;
- preparation and distribution of the test-sheets;
- taking care of the assessors throughout the tests;
- preparation and implementation of tests;
- data input;
- storage of test and other materials;
- waste disposal.

**Table 1 — Indicative list of staff activities and responsibilities**

Sensory manager	Sensory analyst/Panel leader	Panel technician
<p>Maintaining liaison with all other departments that use sensory information</p> <p>Organization and administration of all activities of sensory department</p> <p>Advising on feasibility of test request</p> <p>Supervision of testing activities</p> <p>Preparation of progress reports</p> <p>Planning and supervision of research activities</p> <p>Planning and conducting research on new methods</p> <p>Planning and development of resources</p>	<p>Planning and conducting research on new methods</p> <p>Planning and development of resources</p> <p>Carrying out duties as assigned by the sensory manager</p> <p>Selection and training of assessors</p> <p>Recruiting of assessors</p> <p>Selection of test procedures, experimental design, and analysis</p> <p>Determination of the needs of special panels</p> <p>Supervising all phases of product preparation and testing</p> <p>Training subordinates to handle routine assignments</p> <p>Coordinating new subject orientation and screening</p> <p>Responsibility for preparation and reporting of results</p> <p>Establishing test schedules</p> <p>Analysing data for reporting</p> <p>Development and updating of all programme plans</p>	<p>Preparation of the test room</p> <p>Preparation/arrangement of the samples to be evaluated</p> <p>Coding of samples</p> <p>Preparation and distribution of test-sheets</p> <p>Oversee assessors' needs throughout tests</p> <p>Preparation and implementation of tests</p> <p>Data input</p> <p>Preliminary data examination</p> <p>Storage of products, test materials, and other materials needed</p> <p>Waste disposal</p>

**Table 2 — Indicative list of staff competencies**

<b>Skills required</b>	<b>Sensory manager</b>	<b>Sensory analyst/Panel leader</b>	<b>Panel technician</b>
<b>Administrative and managerial</b>	<p>Organization and planning capabilities</p> <p>Administrative capabilities (budgeting, reporting, programme updating)</p> <p>Knowledge of the business and the environment</p> <p>Technical knowledge relative to production, packaging, storage, and distribution</p>	<p>Organization and planning capabilities</p> <p>Administrative capabilities (budgeting, reporting, programme updating)</p> <p>Knowledge of the business and the environment</p>	
<b>Scientific and technical</b>	<p>Product knowledge (development, formulation aspects)</p> <p>Technical knowledge relative to production and packaging</p>	<p>Product knowledge</p> <p>Technological knowledge</p> <p>Science background</p> <p>Statistical knowledge</p>	<p>Knowledge of general laboratory procedures and safety</p> <p>Basic knowledge of food hygiene</p>
<b>Sensory</b>	<p>Theoretical knowledge in the field of sensory analysis</p> <p>Knowledge of sensory methodology</p>	<p>Theoretical knowledge in the field of sensory analysis</p> <p>Knowledge of sensory methodology</p> <p>Practical experience as panel leader or panel member</p> <p>Capability to plan, carry out, and evaluate sensory tests</p> <p>Interpretation and reporting of results</p>	<p>Theoretical knowledge of arrangement and conduct of sensory tests</p> <p>Ability to follow detailed outlines</p>
<b>Other skills</b>	<p>Liaison and contact with other departments within the organization</p> <p>Liaison and contact outside the organization (clients, industry organizations, authorities)</p> <p>Communication (written and verbal)</p> <p>Interpersonal skills</p> <p>Understanding of and ability to handle group dynamics</p>	<p>Interpersonal skills</p> <p>Understanding of and ability to handle group dynamics</p> <p>Competent decision maker</p> <p>Motivates panel</p> <p>Trained in psychology</p> <p>Leadership skills for groups</p>	<p>Motivated for job</p> <p>Responsible, dependable</p> <p>Conscientious</p>

## Bibliography

- [1] ISO 6658, *Sensory analysis — Methodology — General guidance*
- [2] ISO 13300-2, *Sensory analysis — General guidance for the staff of a sensory evaluation laboratory — Part 2: Recruitment and training of panel leaders*





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