SCHMELING + CONSULTANTS

White Paper Problem Typology

Overview

Technical editors must consider a wide variety of problems when correcting text; usually things become difficult during the exact naming and identification of the problem. The problem typology assists the editor in identifying the error and also helps him edit more clearly and consistently.

Content

1 Problem types: Overview and abbreviations

Quality standard	Problem cause (found or assumed)	Abbreviation
Correctness and relevance	Incorrect information	**I-Inf**
	Lacking information	**L-Inf**
	Superfluous information	**S-Inf**
	Given information not sufficient or lacking details	**?-Inf**
Safety and legal conformance	Violation of laws, standards, directives	**§§**
	Safety or warning messages not internationally compliant	**§**
Precise language	Diction problem	**DP**
	Syntax problem	**SP**
	Writing conventions not adhered to	**WC**
	Style not functional or appropriate for target group	**Style**
	Typing error (correction characters according to DIN 16511)	**TE**
Clear reference	Reference to objects or cross-references not correct/not clear	**Ref**
	Reference to other information (cross-ref.) not correct/not clear	**IRef**
Clear function	Function of text or image not clear or false	**Fct**
Clear and consistent figures	Figure structure: Elements for guiding the attention not consistent, not functional or not compliant to the conventions	**FS**
	Figure orientation: Figures unclear, perspective or design laws not considered, quality or size of figure not sufficient, too many details	**FO**
	Figure conventions not met (not uniform, not aesthetic, corporate design not heeded)	**FC**
Clear order and structure	Content structure (structure of topics) deficient	**Struc**
	Sequencing of text section or image not correct	**Sequ**
	Serialization: Position of words or parts of a sentence inadequate	**Serial**
	Coordination of text and corresponding image(s) inadequate	**T-F**
Functional design of layout and typography	Layout not functional or not used according to the applicable conventions	**Lay**
	Typography not functional or not used according to the	**Typ**

	applicable conventions	
	Symbols or elements of text design used incorrectly	**Symb**
Didactic preparation	Design of information not compliant to didactic requirements	**Di**
Media Access	Medium not available when information needed	**MA**
	Control of the medium unclear or not comprehensible	**MC**
Economical production	Structure, wording and design of information leads to uneconomical effort in writing, translation and publication	**Eco**

2   A differentiated view of the problem areas

The previous page gave you an overview of the areas to which you can assign problems and problem solutions systematically. You need this overview in order to be able to zero in on a problem quickly and work purposefully toward a solution.

However, the rough overview is not sufficient to determine the individual problems truly individually. It is only reputed to be a "practical" solution if problem areas are named only roughly. The variety of problems is a fact; it does not help to close your eyes to them. Some problem areas must be subdivided into sub-areas.

The differentiated problem naming will assist you with this.

Example: A note that there are significant problems with your sentence structure is not a real help. If, however, you know precisely the grammatical traps into which you frequently fall, optimizing and avoiding these in the future will be much easier.

Therefore, please examine the individual problems in the following overviews precisely. This will sharpen your eye in order to detect the problematic "candidates" in the various problem areas right away.

2.1   Correctness and relevance

Incorrect information (I-Inf)

- Contradictory or probably incorrect information in the text or in the image – it should at least be checked whether the information is correct.
- Information or image in the manual does not match the program or machine version described
- Information no longer current
- Trustworthiness of the information is not assured
  - ▲ Solution approaches: research, linking to existing data source

Lacking information (L-Inf)

- Relevant information, text parts or illustrations are missing or are not complete – it should at least be checked whether additional information is required
- Relevant information can also be of a functional-structural nature, for example if results are missing or source information without which information is not trustworthy
  - ▲ Solution approaches: research, target group and activity analysis

Superfluous information (S-Inf)

- Information not required for the purpose and the target group – or it should at least be checked whether abbreviations are clear or even profitable
- Doubling of statements – the same information, frequently only

formulated a different way, frequently in warning messages, e.g. "Danger due to impermissible change – do not change product"

- Illustration or description not required, the user can get the information on the screen without a problem

  ▲ Solution approaches: research, target group analysis, rules for information depth and degree of detail in images, rules for redundancy

Correctness and relevance (?-Inf)

- Information not sufficiently informative (meaningful). Example: using the topic title, the user cannot decide precisely whether a section applies to his specific case, whether he needs the section

- Complex actions not broken down into executable partial steps appropriate for the user and the knowledge. Example: the user is asked "Update the data stock." The detailed breakdown into individual steps such as how the "update" is done, is lacking

- Required elements missing in the image (Im-Inf)

- The image is not meaningful (Im-Inf). Example: it is not possible to trace the connections on a block circuit diagram

  ▲ Solution approaches: research, target group and activity analysis and user tests, rules for information depth and degree of detail in images

2.2 Safety and legal conformance

Safety and legal conformance (§)

- Grouped safety messages incomplete, not compliant with laws and directives

- Increased risk of liability as consequence of a quality defect (…/§) for especially safety-relevant quality defects

- Clear warning about personal injury or property damage not assured

- Warning is not internationally compliant (ANSI, etc.), formulated or identified insufficiently

  ▲ Solution approaches: legal and standard research, rules, quality assurance

2.3 Precise language

Diction problem (DP)

- Terminology standardization not taken into consideration, inconsistent word use

- Specialized and foreign terms not explained

- Superfluous filler and filler words, superfluous professional jargon

- Abbreviations not resolved

- Imprecise information, e.g. expressions such as "maybe, accordingly, possibly, essentially, largely"

- Metaphorical expressions not appropriate; lead the user to the wrong track

- No clear specification of the binding nature, e.g. due to imprecise use of the modal verbs should/must

- Superfluous prefix usage

  ▲ Solution approaches: terminology work, basic language rules, quality assurance, language checker, controlled language

Syntax problem (SP)

- Nominalization: imprecise and incomplete due to superfluous transformation of verbs into main words

- Clamping construction: word groups shoved in between articles / numerals / prepositions and main word

- Non-functional passive: acting subject not named, it is unclear who is doing what or should do what

- Verbal bracket: parts of the predicate are torn apart

- Subject and predicate or parts of a sentence torn apart by list elements

- Nested sentence: too many and/or too complex facts linked in one sentence. The sentence will not be understood on first reading

- Superfluous or double negatives

- Prepositional phrases in sequence, many linked expressions such as "near, over, with, from, out," etc.

- The opportunity for clear structuring through list or table was not taken

- Topic development in paragraphs and sections not logical, sentences do not build on one another (theme-rheme principle not heeded)

- Due to unclear references, the sentence can be read several ways – it is not logically unambiguous. This causes it to be less informative (SP/Inf)

  ▲ Solution approaches: basic language rules, functional language rules (functional units in functional design®), quality assurance, language checker, controlled language

Writing conventions not adhered to (WC)

- Rules for text design elements not adhered to

- Regulated writing of compound words with/without hyphen not adhered to

- Structuring and display of lists not compliant with rules

- Writing of units or depiction in technical drawings not compliant with rules or the market

    ▲ Solution approaches: writing rules, graphic rules, quality assurance

Style (Style)
- Style not appropriate to addressee or according to the company-specific corporate identity (too "uncouth," too stiff or even arrogant)

- Image displays do not consider the cultural context, e.g. in case of depictions of bodies or body parts

    ▲ Solution approaches: target group analysis, localization, style rules, proofreading

Typing error (TR)
- Typing errors are pointed out in correction runs continuously according to the DUDEN, Volume 1, Spelling correction characters. The correction characters comply with standard sheet DIN 16511

    ▲ Solution approaches: spelling rules, checking tool, proofreading

2.4 Clear reference

Reference to objects or cross-references not correct/not clear (Ref)
- Clear reference to objects not assured.
Example: object not visible in image (I-ref), degree of abstraction in image or pictogram too high (I-ref) or object designated with a word cannot be identified (DP/Ref)

- Author / source of the information not named or unclear (thus information not trustworthy, factual correctness not assured: (Ref/I-Inf)

- Local deictic problem: position of objects not clear / not described to do justice to work (Ref) or shown in the image (FS/Ref or FO/Ref)

- Temporal deictic problem: time or time duration not named precisely

    ▲ Solution approaches: rules and examples for the reference, regulated functional image elements such as emphasis and magnifiers, quality assurance, user tests

Reference to text passages or illustrations (IRef)
- Clear reference to text passages or illustrations not assured: the object of the reference is not sufficiently precisely located or confusion is possible

- References point nowhere, the object of the reference is missing or is not specified correctly

- Orientation aids for quick information access are lacking or are not optimally formulated and designed

- References are not designed uniformly (WC/Ref)

- Combinations of references (e.g. link lists) are incomplete (L-Inf)

- References to other information provide no information about the object of the reference; users cannot decide whether to

follow the references (Inf/Ref)

▲ Solution approaches: rules for references (functional design®), media-specific reference and navigation concept, reference planning in the creation process, layout, quality assurance

2.5 Clear function

Function of text or image (Fct)

■ Function(s) of text parts, sentences or images not clear. Rules of functional design for consistent text production in functional units not taken into consideration

■ Lacking or incorrect use of orienting and schematic text elements (orientation, summary, functional explanation)

■ Alternatives not clearly introduced and clearly marked

▲ Solution approaches: functional units and sequence patterns (function design®)

2.6 Clear and consistent figures

Figure structure (FS)

■ Specialized display conventions not heeded or not introduced

■ Communicative or didactic function of the design elements unclear (color, hatching, line styles)

■ Image elements for guiding the attention not functional or not used consistently (arrows, reference lines, magnifiers)

▲ Solution approaches: graphic rules, graphic library

Figure orientation (FO)

■ Sensible course of gaze / sequence of observation not supported (eye catcher, emphasis, arrangement)

■ Design guidelines not heeded, incorrect arrangement of the objects in the image

■ Image quality defective or size not functional (too small or too large for overview or details)

■ Perspectives not functional / not appropriate for learning goal

■ Image complexity not functional (unimportant / distracting details)

▲ Solution approaches: graphic rules, training, cooperation between editorial/graphic staff

Figure conventions (FC)

■ Figure conventions not met (not uniform, not aesthetic, corporate design not heeded)

▲ Solution approaches: graphic design

2.7 Clear order and structure

Content structure (CS)

■ Content structure or arrangement not appropriate to topic (not logical, not consistent, not appropriate to content).

▲ Solution approaches: research, target group and activity

analysis, content design for information products (functional design®)

Sequencing (Sequ)
- Learning and action-logical structure of the chapter structure questionable or standardized chapter division not taken into consideration
- Fine organization in sections and sentences incorrect
- Thematic or functional relationship between sentences and sections not clear
- Incorrect (usually too-late) sequencing of warnings, action requirements, test criteria, reference-assuring text or images
- Coordination of manual and screen not taken into consideration
  - ▲ Solution approaches: rules for sequence patterns (functional design®)

Serialization (Serial)
- Position of the words or parts of a sentence (serialization) not optimal. (Optimal can be: access-friendly, factually logical, chronological)
  - ▲ Solution approaches: basic language rules, functional language rules (functional units in functional design®), quality assurance, language checker

Coordination of text and images (T-F)
- Text-figure coordination incorrect due to wrong image sequencing or lacking clarification of the image function(s) in the text
- Text and image do not complement one another
  - ▲ Solution approaches: agreement on reference design, graphic design, layout, functional sequencing of text and image (functional design®), cooperation editorial / graphic staff

2.8 Functional design of layout and typography

Layout (Lay)
- Layout conventions not adhered to or page design incorrect
- The layout does not correctly support the quick detection of thematic or functional blocks
- Enumeration or overview not depicted as clearly-structured table or list
- Wrong, avoidable page break

Typography (Typ)
- Typographical conventions not adhered to
- Legibility lacking, e.g. due to font that is too large or too small, spacing too small, etc.
- Wrong, avoidable line break

Use of symbols (Symb)
- Unknown or non-compliant symbols used
- Display conventions in flow charts not adhered to

2.9   Didactic presentation

Didactic presentation (DI)

- Insufficient matching with the teaching-learning situations (instructional design)
- Learning goals not specified clearly
- Lacking didactic structure, insufficient schematics, insufficient visualization
- Lacking previous orientation, lacking summaries, lacking connecting elements
- Lacking relation to practice, lacking examples, lacking action orientation
- Lacking or insufficient exercises, lacking solutions, exercises cannot be done
- Design of the information and use of media not attractive, e.g. slight use of images, color, whitespace
  - ▲ Solution approaches: instructional design, connection of instructional design and information design

2.10 Media access

Media access and embedding (MA)

- Medium is unsuitable or not available where documentation is used
  - ▲ Solution approaches: analysis of the use situations, selection of suitable media and information logistics

Controllability (MC)

- Control of the medium unclear or not comprehensible
- Medium cannot be controlled sufficiently, e.g. lacking entry into parts of a video, view of a 3D object from relevant perspectives
  - ▲ Solution approaches: optimize control of the medium technically, explain control

2.11 Economical production

Economical production (Eco)

- Insufficient reuse
- Complicated information design with little benefit for the user
- Potential for abbreviation
  - ▲ Solution approaches: standardization and modularization, determine and assess alternative information designs

3 Notes about conducting the problem typological analysis

The following conventions serve to create a consistent procedure for the analysis and a purposeful location of problem points.

Note **The labeling of the problem is not decisive**, but rather its exact description, the solution approach, and last but not least the suitable measure. However, the right labeling eases the assessment and the location of particular problem points.

3.1 One problem type leads to additional problem types

If you assign a problem point to the problem types, it frequently happens that several problem areas are affected and therefore must be named.

Example: the expression is unknown (WC), **which causes** (/) the user to have a reference problem (Ref). In this case, identify the problem point with both abbreviations, separated by a slash "WC/Ref."

The cause is in the first position, the consequence for the user in the second. Thanks to the prioritization of the cause, we can establish greater proximity to the solution approaches.

3.2 Several problem types can be affected at once

Example: information is in the wrong position **or** it is superfluous. The problem should be located both from the point of view of sequencing (Sequ) as well as from the point of view of abbreviation (S-Inf).

In this case, identify the problem point with both abbreviations, separated by a vertical line "Sequ|S-Inf."

3.3 Problem point is especially important

Identify especially important problem points with a special character, e.g. with "#*."

Example: a text passage that is unclear creates a legal problem and is marked with "Inf/§." This text passage is especially well-suited for being discussed as an example. In order to locate the text passage quickly, the person analyzing it marks it with "#* Inf/§." A search in the PDF for the string "#*" will quickly find the relevant passages.

3.4 Solution approaches

If necessary and sensible, initial solution approaches can be formulated. Introduce suggestions for optimization with an arrow "->."

Example: a title says "General activities." This is not informative and is also a typical example that should be discussed.

The problem typological note says:

#* Inf: title not meaningful

--> "Work before start-up"