

REQUIREMENTS ELICITATION TECHNIQUES

ACCORDING TO IREB CPRE

Authors:

Radosław Grębski and Joanna Kalabińska

Partners:



Gathering techniques	3
Questioning techniques	3
Interviews	
Questionnaires	
Collaboration techniques	6
Workshop	
Crowd-based requirements engineering	
Observation techniques	9
Field observation	
Apprenticing	
Artifact-based techniques	12
Perspective-based reading	
System archaeology	
Feedback analysis	
Reuse of requirements	
Design and idea-generating techniques	17
Brainstorming	17
Analogy technique	19
Prototyping	19
Scenarios and storyboards	21
Sources	22

1

Gathering techniques

Gathering techniques make it possible to obtain requirements from previously identified sources. These sources are most often stakeholders, documents or other existing systems. They are typically used to elicit requirements that can be classified as dissatisfiers or satisfiers according to the Kano Model.

Gathering techniques are divided into: questioning techniques, collaboration techniques, observation techniques and artifact-based techniques. The general description of individual groups of techniques and examples of specific techniques included in them can be found in the following section.

A Questioning techniques

These techniques make it possible to elicit requirements from stakeholders by asking them questions in various forms and then analysing the obtained answers. This can be a form of direct interaction in real time (interview) or asking questions in the form of submitted forms (questionnaires).

Questioning techniques are particularly well suited to obtaining satisfiers (performance factors) according to the Kano Model, i.e. those requirements about which stakeholders usually report directly.

Interviews

Interviews are one of the most popular and most commonly used techniques for requirement elicitation. Its distinguishing feature is the real-time interaction between the requirements engineer and a single stakeholder or a small group of stakeholders.

Interviews can be conducted during a direct meeting or remotely (using a messenger, phone, etc.). A great advantage of interviews is their versatility and flexibility. Due to these characteristics, interviews can be widely used to acquire requirements of different types and at different levels of abstraction.

Interviews can be divided into structured and unstructured. In the first case, the conversation proceeds according to a predetermined scenario and a set list of questions. For the latter, there is no predefined list and questions are prepared on an ongoing basis. Most often, a mixed form is used, i.e. there is a predetermined general goal and an initial list of questions, but it is sometimes modified during the interview depending on its course.

ADVANTAGES

→ Flexibility

Interviewing allows you to match a specific stakeholder. Depending on how the conversation goes and what information we want to obtain, we can modify the list of questions by adding further or omitting previously prepared questions.

→ Versatility

Interviews can be used to acquire requirements of different types and at different levels of abstraction.

→ Affordability

Interviews are a widely used technique. They usually do not require lengthy stakeholder introductions or explaining complicated rules. They also usually do not require the use of advanced and expensive hardware or software.

→ Validation of common understanding

An interview allows you to check and confirm whether the interlocutors understand each other correctly. This is achieved by observing non-verbal messages (if the interlocutors can see each other), the possibility of asking both parties additional (clarifying) questions, paraphrasing and asking the interlocutor to confirm the understanding, as well as making corrections if necessary.

→ Stakeholder openness potential

Direct contact with stakeholders encourages them to be open. This technique gives a relatively large (certainly larger than in other techniques) opportunity to obtain information that is uncomfortable, informal and unpopular among individual stakeholders. This is particularly the case for interviews with individual stakeholders and in situations where the outcome of the interview is not widely disclosed.

DISADVANTAGES

→ Time-consuming

Conducting an interview can be time-consuming. Eliciting requirements in this form from a large number of stakeholders may be inefficient.

→ Possible unintentional influence

During the interview, there is a possibility of unintended influence on the stakeholder by asking biased questions, inadequate non-verbal communication, etc. This should be avoided in order not to interfere with the course of the interview and not to affect its result.

■ Questionnaires

Questionnaires (surveys) are a technique that allows for obtaining information, including requirements, from a large group of stakeholders. Each respondent answers an identical set of questions prepared in advance. This can be done using both electronic and traditional paper forms.

The questionnaires can be divided into those with open- and closed-ended questions. Open-ended questions are particularly well suited to obtaining new, previously unknown information. Closed questions are usually used to validate assumptions and obtain statistical data.

ADVANTAGES

→ Large group of respondents

Questionnaires allow for obtaining information from a large group of stakeholders. This information can be collected and analysed in a time-efficient manner. This applies in particular to closed-ended questions.

→ Opportunity for statistical analysis

In the case of closed-ended questions, it is possible to submit the obtained information to statistical analysis. This is especially useful when collecting large amounts of data from a properly curated group of respondents, as it allows you to draw appropriate conclusions based on data analysis.

→ **Applicable to distributed stakeholders**

Where stakeholders are geographically dispersed (e.g. located in different countries or even in remote time zones), collecting information using questionnaires may be more effective than organising interviews or workshops.

DISADVANTAGES

→ **Lack of validation of common understanding**

Unfortunately, it is not certain whether the respondents correctly understood the questions contained in the questionnaire and answered them accurately.

→ **Work-intensive analysis of open-ended questions**

In the case of open-ended questions, the analysis of answers can be complicated and time-consuming. In addition, the answers to such questions may be laconic, incomplete or may deviate from the topic.

B Collaboration techniques

Collaborative techniques make it possible to obtain requirements from stakeholders through interaction and cooperation. These techniques usually actively involve stakeholders focused on a given goal (during a workshop) or associated within a specific community focused on the development of a given idea or product (crowd-based requirements engineering).

■ Workshop

The definition of a workshop is broad. It can be said that a workshop is any event that gathers a selected group of stakeholders in a specific place (also virtual) and with a specific goal. Workshops can be used for acquiring early and general requirements, clarifying and discussing the acquired requirements, prioritising requirements, presenting and discussing solutions, etc. It is a universal technique and allows you to quickly get results.

ADVANTAGES

→ Fast results

By involving a group of stakeholders, they make it possible to make quick decisions, discuss questions and disputes, get feedback, etc. Usually, the results are obtained faster than in the case of one-to-one meetings and interviews.

→ Common understanding

They help to achieve a common, multilateral understanding within the group of stakeholders involved. This is obtained through discussions, talking about problems and possible solutions, etc.

→ Versatility

They can be used for many different purposes: acquiring requirements, clarifying requirements, prioritising requirements, discussing solutions, obtaining feedback, etc.

DISADVANTAGES

→ Stakeholder availability

Workshops require the participation of a group of stakeholders at a specific place and time in order to achieve their goal. Gathering the necessary group of stakeholders in a given place and at a given time can be difficult due to time or geographical availability. In a situation where workshops require the involvement of many stakeholders, they usually have to be scheduled well in advance.

→ Right group of participants

The success of the workshop depends to a great extent on the selection of the right group of participants. A group that is too narrow, lacking stakeholders with the necessary competences, knowledge or decision-making powers, will not be able to achieve its goal. On the other hand, a group that is too large and includes unnecessary stakeholders will make the workshop inefficient.

→ Group influence

During workshops, the influence of the group on individual participants is often noticeable. This may result in less openness, restraint in expressing opinions and greater conformity. The degree to which the influence of the group is noticeable often depends on the selection of workshop participants and the prevailing organisational culture.

■ Crowd-based requirements engineering

Crowd-based requirements engineering is a technique of eliciting requirements consisting in jointly proposing, discussing and prioritising them by a group of stakeholders who form a community focused on the development of a specific system or, more broadly, a product.

A group of stakeholders, who are most often users, report potential requirements usually based on their own experience and expectations from the product being developed. Then these ideas are discussed, jointly refined, and sometimes prioritised.

ADVANTAGES

→ Group “wisdom”

Thanks to the diverse and complementary skills, needs and perspectives of community members, it is often possible to acquire a wide range of diverse requirements.

→ User engagement

The crowd-based requirements engineering technique directly engages stakeholders, especially users. It therefore gives them the opportunity to participate directly in product development.

→ Short communication chain

Requirements are reported, developed and prioritised directly by stakeholders. This shortens the communication chain to a minimum, reducing the risk of potential misunderstandings.

DISADVANTAGES

→ Difficulty in accessing the right group of users

The effectiveness of this technique requires an active and engaged community of users. It is usually not easy to create, especially at the beginning, when the system is just being created or is just gaining popularity. In addition, in the case of software used internally in the organisation, the possibility of creating such a group depends on the organisational culture.

→ Potential conflicts

Various points of view and the associated expectations of individual users may differ significantly. This, in turn, can give rise to conflicts that can be difficult to resolve.



Observation techniques

Observation techniques consist in eliciting requirements by observing stakeholders, their processes, performed tasks, etc. Through observation, we can gather information which stakeholders would not tell us directly because they do not know them (e.g. they perform some activities unwittingly and unconsciously), they do not want to pass them on (e.g. they bypass official instructions and procedures and do not want to talk about it) or they consider them to be obvious and therefore not worth paying attention to and communicating (e.g. something is obvious from their point of view, because they have been doing it every day for years).

Observation techniques are great for acquiring requirements classified as dissatisfiers (basic factors) in the Kano Model. Stakeholders usually do not speak directly about the basic factors (because they take them for granted), so it is usually more effective to learn about them through observations.

■ Field observation

Field observation consists in collecting information and, consequently, requirements, by looking at stakeholders during their work, the implementation of a specific task or activity, etc. Thanks to this technique, we can learn a lot of information that could potentially be missed because stakeholders would probably not talk about it directly for the reasons described above.

Observations can be divided into overt and secret. Overt observations are characterised by the fact that the observed persons are aware of them. In the case of secret observations, of course, they do not know that they are being watched. Overt observations are associated with some risk. Often, knowing that they are being watched, people behave not as usual, but as expected (e.g. they strictly follow the rules, regulations, etc.), or as they would like to be perceived. To avoid this distortion and learn about standard behaviours, it is worth considering secret observations. However, they are often difficult to organise (for technical or sometimes even legal or ethical reasons). Another way for dividing observations is the division into active and passive observations. During passive observations, you do not interact with the people observed. Active observations, on the other hand, allow interaction in the form of asking questions, asking for additional clarification, etc. Therefore, they provide an additional channel for obtaining information.

ADVANTAGES

→ Reducing the risk of overlooking requirements

Using observation, we can reduce the risk of overlooking possible requirements that stakeholders will not explicitly report (because they do not know, do not want to report them or take something for granted).

→ **Access to real data**

When conducting observations (especially secret ones), we have direct access to the data. We can analyse, measure, count, etc. instead of just relying on declarations that may not always be in line with reality.

→ **Information on deviations, omissions and shortcuts**

By observing, we can potentially notice the implementation of certain activities not in accordance with the instructions and procedures or assumptions of their creator. We may also notice the omission of some steps, the addition of activities and any other deviations which stakeholders are usually not willing to explicitly report.

→ **No communication restrictions**

In the case of observations, there are no restrictions resulting from the need to verbalise the description. Observations are therefore useful when stakeholders are not communicative, do not speak our language or the issues are difficult to precisely express in words and it is easier to demonstrate and observe them.

DISADVANTAGES

→ **Risk of pretending**

In the case of overt observations, there is a risk that the observers will behave not as usual, but as expected. For this reason, the information obtained may be incorrect or incomplete.

→ **Possibility of disrupting work**

Observations can negatively affect the work of the people observed. They can interfere with it and reduce its effectiveness.

→ **Cost and technical difficulties**

Observations can be costly. It may require a lot of sophisticated equipment to carry them out (especially in the case of secret observations).

→ **Reluctance and resistance**

Observations often arouse reluctance and resistance. They can be perceived negatively by the people who are to be observed as interference and excessive surveillance.

■ Apprenticing

In contrast to observation, apprenticing is not only about watching how others perform a given activity, but also about performing it independently. Therefore, we appear on the site of a given stakeholder and carry out a specific work, process or task under certain conditions and using certain tools. This gives us the opportunity to learn about the requirements first-hand. Relying on one's own experience allows for an in-depth understanding of the stakeholders' needs. It also reduces the risk of missing important requirements.

ADVANTAGES

→ Direct experience

Apprenticing gives the opportunity to gain direct experience and, therefore, allows you to understand the needs of stakeholders (especially users) and the resulting requirements.

→ Reduced risk of overlooking requirements

By apprenticing, we reduce the risk of missing important requirements. This is due to the fact that it is harder not to notice something when we perform a given activity ourselves and rely on our own experience.

DISADVANTAGES

→ Own subjective point of view

Apprenticing makes us to acquire personal experiences, and therefore we assess them through our own preferences and expectations. Unsupported by other techniques, it can cause the appropriate distance to be lost and the information to be distorted by perceiving it only from your own subjective perspective.

→ Difficult access

In many cases, apprenticing is difficult or even impossible due to the inability to perform specific tasks on your own due to potential risk, lack of necessary skills, lack of authorisation, etc.

Artifact-based techniques

Artifact-based techniques consist in eliciting requirements not from stakeholders but by analysing objects such as documentation, existing systems, video records, etc. These objects are called artifacts or work products. Their thorough and systematic analysis allows for obtaining many requirements, especially dissatisfiers (basic factors) and satisfiers (performance factors) according to the Kano Model classification.

The general difficulty associated with this group of techniques is the need to thoroughly analyse the sources in terms of their timeliness and adequacy. In addition, information obtained from many artifacts is often incomplete or inconsistent, which requires additional work (often using other techniques) in order to detect and eliminate these problems.

Perspective-based reading

This technique allows you to acquire requirements by analysing available documents, which can be legal standards, process descriptions, descriptions and instructions for use of systems, analysis of the organisation's environment, market reports, data collection forms, etc.

The technique assumes an overview of available sources, an assessment of their adequacy and timeliness, and then their thorough and systematic analysis in order to obtain new information or validate the information already possessed. A characteristic feature of perspective-based reading is the analysis of the document from the point of view of a specific stakeholder (developer, tester, regulator, etc.) in order to capture relevant information. If there are many points of view defined, it requires repeated analysis of the document, so that the analysis always focuses on one of them.

ADVANTAGES

→ **Obtaining basic information**

If there is appropriate documentation, the technique allows you to learn the basic information and familiarise yourself with the terminology. This makes subsequent communication with stakeholders much easier and more effective.

→ **Stakeholder independence**

The technique makes it possible to obtain requirements without involving stakeholders. This is especially useful when the stakeholders are not easily accessible or reluctant to cooperate.

→ **Validation of information**

This technique allows for the validation of information obtained from other sources

(e.g. directly from stakeholders). Comparing such information with the details contained in the documents makes it possible to find discrepancies, inaccuracies or omissions.

DISADVANTAGES

→ Difficult access to documents

Access to documents can be difficult. It is not possible in every project. In addition, it may be difficult or even impossible to reach the authors of the documents if it is necessary to discuss any doubts.

→ Possible low quality of documents

Documents, especially design documentation (e.g. documentation of existing and long used systems) may be outdated, incomplete, unofficial, etc. It causes situations where the documents are of low quality, so relying on the information contained in them can be risky.

■ System archaeology

The artifact analysed in this technique is the system. It can be a system that is being discontinued and replaced by a new one, it can also be a competitive system or a system that is similar in some respects but serves a different purpose. By analysing a specific system, we can perform so-called reverse engineering and try to recreate the requirements that formed the basis of its implementation. Of course, a large part of the requirements obtained in this way later turn out to be inadequate or outdated. What's more, a large part of the requirements for the new system will not be obtained in this way because they were not included in the analysed system at all. Nevertheless, some of the requirements obtained using this technique may still turn out to be valid and relevant.

ADVANTAGES

→ Possibility to obtain prerequisites

By analysing the existing and replaced system or an analogous competitive system, we can easily learn its general purpose and the business purpose it serves, and thus determine the initial and general list of requirements.

→ **Suitability in the absence of documentation**

System archaeology is especially useful in a situation where we do not have system documentation (e.g. it is outdated, lost, or simply never created), but we have the system itself, which we can analyse and thus recover at least in part the requirements on the basis of which it was developed.

DISADVANTAGES

→ **Possible inadequacy of the requirements**

There is a real risk that the requirements obtained in this way (e.g. through the analysis of a discontinued system) will turn out to be inadequate or outdated in the context of the new system.

→ **Possible omission of requirements**

If you are acquiring requirements only using this technique, there is a risk of missing important requirements due to not taking them into account in the analysed system.

■ Feedback analysis

Feedback analysis is a technique of acquiring requirements by collecting and analysing feedback from stakeholders. This information may relate to an existing system they already use, a test version system or a prototype at various stages of development.

By analysing the incoming feedback, the requirements engineer can learn the opinions of actual or potential future users. Thanks to this, they can acquire new requirements, modify existing ones or make changes in priorities. Obviously, obtaining feedback can take place through the previously-described interviews or surveys, or can be carried out in the form of a workshop.

ADVANTAGES

→ **System or prototype as a reference**

Using an existing and familiar system or a testable prototype as a reference greatly facilitates the discussion. It may concern something that already exists and that can be tested, and not only the documentation of requirements.

→ Validation of assumptions

Analysing feedback from actual or potential users enables validation and, as a consequence, confirmation or rejection of the assumptions made when defining the requirements.

DISADVANTAGES

→ User engagement

The effectiveness of this technique depends on the access to an active, engaged and representative group of users who are willing to share their opinion.

→ Potential conflicts

As in the case of crowd-based requirements engineering, the points of view and the associated expectations of individual users may differ significantly. This, in turn, can give rise to conflicts that can be difficult to resolve.

■ Reuse of requirements

Reuse of requirements consists in applying in practice a fairly accurate saying that it is usually not worth reinventing the wheel. Usually, a large part of the requirements elicited and documented for other systems, at least partially similar, can be reused. Especially if these systems were developed within the same organisation.

This technique is especially applicable to standard, often very similar modules of various systems (e.g. sign-in and login module, module for generating reports from data, etc.) and in the case of many groups of quality requirements (e.g. data security, application availability, ergonomics, etc.). In the cases mentioned, as well as often in other cases, instead of acquiring requirements using other techniques, it seems effective to re-use requirements from other projects after their possible partial adaptation.

ADVANTAGES

→ Efficiency of requirements elicitation

Usually, reusing requirements from other projects is more time- and cost-effective than eliciting them from scratch, e.g. from stakeholders or through artifact analysis.

→ **Standardisation of requirements**

Reusing requirements standardises them. Standardisation of requirements between projects is usually assessed positively, among other things, because it facilitates testing and promotes the formation of consistent habits and routines among users.

→ **Quality of reused requirements**

If the requirements have already been successfully used in another project, we know that they meet at least minimum quality standards. As for the new, only recently acquired requirements, there is no such certainty.

DISADVANTAGES

→ **Lower innovativeness**

Repeated use of requirements means that we automatically approach specific issues and problems in the same, standardised and typical way. As a result, over time, we may not notice new, innovative and potentially better solutions than the standard ones.

2

Design and idea-generating techniques

The gathering techniques described above consist in eliciting requirements from stakeholders or through artifact analysis. They are great for collecting certain groups of requirements, especially performance factors and basic factors according to the Kano Model classification. However, their limitation is the narrowing of the group of acquired requirements to what is known to stakeholders, recorded in documents or available in already existing systems. For this reason, using only gathering techniques, it is rarely possible to obtain the requirements relating to innovations, allowing to create new and creative solutions. In order to obtain such requirements, techniques known as design and idea generating techniques will come in handy.

Design and idea generating techniques are often abbreviated as creativity techniques. They focus on stimulating creativity in order to develop unconventional, often avant-garde requirements and corresponding innovative solutions. These solutions often meet with the enthusiasm of future users, for whom they are a novelty of which they were previously unaware. Design and idea generating techniques therefore allow for obtaining delighters (excitement factors) according to the Kano Model classification.

A Brainstorming

Brainstorming is a widely known and used technique for designing and generating ideas. It consists in looking for creative ideas and solutions. This technique consists of the following components: defining the topic or issue to which the emerging ideas will relate, designating a group of participants, organising an appropriate session, and then summarising it.

During the brainstorming session, participants try to submit as many interesting, diverse and innovative ideas on a given topic as possible. It is useful to build on the ideas of others and be inspired by them in order to stimulate each other to be as creative to the maximum extent. As a rule, it is forbidden to criticise or even discuss the submitted ideas on an ongoing basis during a brainstorming session. This only happens after the session. The purpose of such an approach is to prevent the participants from becoming less engaged and

open-minded. All ideas submitted during the session are listed, no matter how strange they may seem.

The brainstorming session is followed by a summary. The submitted ideas are discussed and evaluated according to criteria most often prepared before the session. Usually, most of the submitted ideas are assessed negatively, as unrealistic, too expensive, etc. Often, however, the ideas include those that are suitable for further analysis and potential use. Innovations are often created in this way.

ADVANTAGES

→ Possible diverse and innovative ideas

During the brainstorming session, interesting, diverse and creative ideas are often created, which are suitable for further analysis and sometimes serve as sources of innovation.

→ Creative and free thinking

The atmosphere of openness and creativity that should prevail during a brainstorming session promotes unconventional, creative thinking and open, free expression of ideas.

DISADVANTAGES

→ Success dependent on participants' creativity and commitment

The condition for successful brainstorming is the participation of people with appropriate competences to submit innovative ideas and their strong involvement in the initiative.

→ Possible negative impact of the organisational culture

The success of brainstorming depends to a great extent on the openness of the participants in expressing their ideas, including very non-standard and sometimes even strange ones. Brainstorming often works well in organisations with an open, free culture and a flat organisational structure. They are usually less effective in organisations with formal and hierarchical structures.

B Analogy technique

The technique of searching for analogies is based on creative inspiration and the transfer of certain patterns, ideas or solutions. Inspiration can come from a solution to a specific problem or an innovation used in another industry or field, an approach to a given topic derived from another culture, natural phenomena, etc.

It should be remembered that the analogy technique is not a simple mapping or imitation (as in the case of benchmarking), but an inspiration and creative transfer of ideas to new fields, which, as a result, creates innovations than can be “local” in nature, but they are still innovations.

ADVANTAGES

→ Wide application

The possibility of looking for analogies is not limited and offers wide opportunities to get inspired and creatively transfer ideas and solutions.

DISADVANTAGES

→ Temptation to copy

Often, this technique is misunderstood as copying solutions rather than being creatively inspired and creating innovations.

C Prototyping

Determining the requirements is not always possible in advance, before commencing work on a given solution. Sometimes it turns out that ideas for new requirements or changes in requirements appear only when the first draft solutions become visible. Moreover, it often turns out that not everything is known in advance and it is necessary to make some assumptions in order not to get stuck in place. However, assumptions are a source of risk because they may or may not be accurate. It is worth investigating this as soon as possible. There are also situations in which there are many possible solutions to a given problem or requirement, but it is not clear which one is best. Prototyping can be helpful in all these three cases.

Prototyping is nothing more than creating draft, perhaps partial solutions and their subsequent analysis. This is done in order to validate the requirements and assumptions or to choose the optimal solution. There are prototypes with varying level of fidelity, that is, the extent to which the prototype is close to the target solution. Low-fidelity prototypes are usually very rough, basic and limited in nature, but they are available at a low cost. High-fidelity prototypes resemble the target solution more, but the cost of developing them is usually much higher.

ADVANTAGES

→ Possibility of validating the requirements and assumptions

Through prototyping, it is possible to validate the requirements and, consequently, their possible changes. Prototyping also makes it possible to confirm or refute the assumptions made when specifying the requirements.

→ Testing different solutions

Prototyping allows you to choose the best solution in a given respect from among the many available. By creating prototypes, individual solution options can be tested and compared.

→ Building common understanding

Creating and discussing prototypes increases the degree of common understanding between stakeholders. Using a prototype as a reference allows you to confirm the requirements or precisely indicate the necessary changes.

→ Verifying feasibility

Prototyping can be used to prove the feasibility of a specific solution by creating a basic, draft version (a proof of concept).

DISADVANTAGES

→ Possible misinterpretation of the scope of work remaining to be performed

When seeing a high-level prototype (e.g. an accurate mock-up of the user interface), stakeholders may come to the erroneous conclusion that only a small scope of work remains to be done. This can lead to unrealistic expectations.

→ Possible unintentional suggestion of a solution

Often, prototypes are taken too literally and in too much detail. This sometimes leads to situations where teams perceive a prototype not bearing in mind its intended purpose (e.g. validating selected requirements or proving feasibility), but as an accurate guideline for the target solution. This can lead to an unintentional, excessive narrowing of the space of possible solutions (e.g. developers may decide that something should look exactly like the prototype, even though it is not strictly required).

→ **Potentially high cost**

Creating advanced high-level prototypes can be both costly and time-consuming.

D Scenarios and storyboards

A scenario is a description of the activities necessary for the actors (systems and people) to perform in order to achieve a specific goal. Scenarios can be described textually, using natural language, or graphically, usually using a set of images with signatures. When the scenario is described graphically, we call it a storyboard.

Scenarios and storyboards can be described at different levels of detail, from very preliminary and general to highly detailed. Especially the former ones are created quite quickly and allow to describe alternative possibilities of implementing activities in order to achieve a given goal. Developing scenarios and storyboards is usually a joint, group activity that engages stakeholders. This promotes creative thinking, analysis and discussing ideas, and consequently searching for optimal, often innovative solutions.

ADVANTAGES

→ **Ability to analyse multiple scenarios**

Scenarios and storyboards allow you to describe and discuss different options of activities and different ways to achieve the goal. This can help you find the optimal solution.

→ **Affordability**

Both scenarios (text descriptions) and storyboards (graphic descriptions) are created quickly, without the need to use advanced tools. For this reason, their development usually entails low costs.

→ Building common understanding

Developing scenarios and storyboards together with stakeholders helps you build a common understanding. It allows you to thoroughly discuss a given issue, analyse different options and notice and explain possible differences in understanding the requirements.

→ Ease and intuitiveness of understanding

Scenarios and storyboards, thanks to their accessible form, are usually very easy to understand for stakeholders. To understand them, you do not need advanced knowledge, expertise in notation, long-term implementation, etc.

DISADVANTAGES

→ General form of description

Typically, scenarios and storyboards describe a general sequence of activities leading to a specific goal. By creating them, it is easy to bypass possible limitations, exceptions and extreme situations.

SOURCES

- IREB Certified Professional for Requirements Engineering (CPRE), Version 3.1, 2022.
- Handbook for the CPRE Foundation Level according to the IREB Standard, Version 1.1.0, 2022.
- A Guide to the Business Analysis Body of Knowledge® (BABOK® Guide). Version 3. 2015.