# Guide to conducting a semi-structured expert interview

## 1. Introduction

1.1. Hello, "Interviewer," thank you very much for agreeing to participate in this study.

i. My **name is Jonas Braune**. I will be conducting the expert interview with you today. First, I would like to briefly **explain** the **general procedure for this session**.

ii. The **conversation will be recorded** to enable transcription and subsequent analysis of the interview. The recordings will be deleted immediately after the transcript has been created. We **will** then **remove all personal information** from the transcript, such as your name or the name of your company. You will then have two weeks **to review** the **transcript** and request any changes or withdraw your data.

iii. The evaluated data will be **published** exclusively in **anonymized form**. We will be happy to provide you with the relevant publications.

iv. Do you have any **questions** about our **data handling** policies?

1.2. Then I would like to explain the purpose of this study:

i. As part of my bachelor's thesis, I am investigating the extent to which **traffic safety on building construction sites** can be **significantly** improved—provided that efficient construction site logistics continue to be guaranteed.

ii. In parallel with the expert interviews, a **literature review** is conducted **to reflect** the **current state of scientific knowledge**. This also takes into account legal and normative regulations, such as the **RSA,** the **StVO**, or guidelines from **the professional association** for the construction industry.

iii. The aim is **to compare best practices** (real-life experience) **with scientific theories** on the basis of expert opinions in order to develop practical proposals for change.

iv. In addition, the expert interviews are intended **to reveal** additional **accident blackspots** that may not be apparent from other sources.

v. I have divided the interview into **four parts**.

1.3. I will now begin recording.

1.4. **[START RECORDING]**

## 2. Introductory questions

2.1. **How long** have you been working in the construction or logistics industry?

2.2. What **training** or **studies** have you completed?

2.3. Which **company** or institution do you currently work **for?**

2.4. What **positions** have you held or do you currently hold?

2.5. What **overlaps** do you have with **security issues** there?

## 3. Passenger transport

**Planning:**

3.1. Is **passenger transport** already taken into account in the **planning phase** of new construction projects?

?

3.2. Where do you see **typical hazards** for pedestrians on construction sites?

i. How could these **be mitigated**? **Rules**

**and methods:**

3.3. Are there fixed **regulations for walkways**?

i. How are these **marked**?

ii. How well are they **adhered to**? – If not, why not?

iii. →Draft solution: Modular LED safety mat system (show image)

3.4. What **measures** do you take in **the dark** to prevent tripping and falling hazards on paths?

i. Which light sources are best suited for this purpose?

ii. →Solution design: Modular LED safety mat system (show image)

3.5. What **specific protective measures** are in place to prevent tripping hazards caused by unstowed materials or equipment?

3.6. How do you ensure that **crane and swing areas are** not **entered** unintentionally?

i. →Solution proposal: Construction site laser protection zone (show image)

**Practical check:**

3.7. To what extent is the issue **of route guidance** addressed or adapted during regular **safety inspections?**

or adjusted?

3.8. How is **it ensured** that secured **walkways remain accessible** throughout the entire construction process

**?**

i. Are there clear **responsibilities** on the construction site as to who is responsible for the **daily tidying up** and securing of tools/equipment/materials and waste?

ii. **Who** is responsible? - **Is** each **trade organized separately** or **centrally**?

iii. How well is this **implemented**?

iv. Solution design: SPOT robot dog patrols main routes and analyzes obstacles.

**Digital:**

3.9. Which **digital tools** (e.g., app-based navigation, digital site plans, tracking) do you use or do you consider useful for guiding people safely through the construction site?

i. What has been your **experience** with these tools?

## 4. Machinery traffic

**planning:**

4.1. How are transport routes for machinery and materials planned for new projects?

i. Are there **designated routes**?

ii. Is there **a physical separation** between pedestrian and vehicle traffic?

**Rules and methods:**

4.2. What **measures prevent** people from coming into conflict with heavy material transport (e.g.,
reverse zones)?

   i. →Solution design: Example Amazon Logistics Tracker

4.3. What **measures** do you use to avoid or secure **intersections** between supply routes on the construction site?

   i. **Where** do such intersections typically occur?
   ii. **Which types** of traffic are most frequently affected?

**Practical check:**

4.4. To what extent are **transport routes regularly adapted** to changing hazard situations during construction?

   i. How is this checked?
   ii. Are near misses recorded?

4.5. Is there **documentation** of whether safety measures in the driving area (e.g., barriers, signage, warning systems) **correctly** implemented?

**Digital:**

4.6. Which **technologies** (e.g., cameras, sensors, tracking) do you use or consider to be Useful for monitoring hazards posed by active machinery or material transport?

**5. Overall assessment**

5.1. Where do you see the **greatest need for action** in terms of traffic safety on construction sites?

   i. To what extent does **lean logistics/BIM modeling** support the safe organization of machine and pedestrian traffic on building construction sites?
      a. Do you have any examples of how **lean construction site organization** has led to fewer **points of conflict** in personnel traffic?
      b. What **role** does **cycle planning** play in this?

5.2. What **reasons** do you see for certain **safety requirements not being implemented** in practice?

**6. Conclusion of the interview**

6.1. Thank you very much for taking the time. Is there anything else you would like to add? **would like to add**?

6.2. **Thank you** again **for participating**. It was a very pleasant and informative conversation. We will **contact** you as soon as the **transcript of the interview** has been **prepared**. (After analyzing and documenting the interviews, we will send you the resulting documentation.)