

The measurement of gender identity in quantitative research: advice sheet

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[Dutch original version here](#)

This advice sheet was developed following the development of a more extensive advisory note¹, and aims to: A) provide clarity on the motivation for assessing gender identity in research, and B) formulate concrete recommendations for each type of quantitative research, in order to provide concrete tools for researchers. Those who wish to read more about known national and international examples, the advantages and disadvantages of each type of question, and our recommendations, are kindly referred to the more extensive advisory note.

A. Why do we need to measure gender identity?

1. Sex assigned at birth, legal gender registration, and gender identity are not the same

Research on sex and gender has evolved significantly in recent decades. Various new insights have led to the recognition of "sex assigned at birth" and "gender identity" as separate concepts, alongside "sexual orientation" and "gender expression". Each individual person thus has:

- a) a **(assigned) birth sex**, which is translated into a (mandatory) legal gender registration (currently limited in Belgium to either male or female);
- b) a **gender identity**: the internal experience of feeling and identifying as (mostly) a man, (mostly) a woman, gender diverse, or other;
- c) a **sexual orientation**: the romantic and/or sexual orientation (gay, lesbian, bi, pan, asexual, etc.);
- d) a **gender expression**: the external manifestation of a person's gender through clothing, behavior, hair, etc., which is strongly influenced by culture and history.

Of these four components, only the legal (birth) sex is recorded by the Belgian government. This data appears in the National Register (het Rijksregister) and is accessible via the Crossroads Bank (Kruispuntbank). For the vast majority of the population their legal gender registration is never changed and is assumed to (largely) coincide with their individual gender identity.

Since 2018, the change of a legal gender registration (LGR) has been a simple administrative procedure.² Between January 1993 and September 30, 2019, 2.193 Belgians had their gender registration in their civil status documents changed. The motivation for this is that their gender

¹ Motmans, J., Burgwal, A., & Dierckx, M. (2020). [Adviesnota. Het meten van genderidentiteit in kwantitatief onderzoek](#). Gent: Transgender Infopunt, UZ Gent.

² The legal gender registration is a legal obligation in Belgium. Since 2018, this registration can be easily changed administratively, but only from M to F or vice versa. Currently, research is being conducted on how the ruling of the Constitutional Court (2019) regarding the lack of legal recognition of non-binary/gender diverse persons should be legally translated: by adding a third option or by changing/abolishing the gender registration. For more information, see Motmans, J., & Verschelden, G. (Eds.). (2020). [De rechtspositie van transgender personen in België. Een multidisciplinaire analyse na de wetten van 25 juni 2017 en 18 juni 2018](#) (Vol. 20). Antwerpen-Cambridge: Intersentia

identity does not match their registered legal gender. However, it is incorrect to assume that the government registers gender identity. At most, it can be assumed that those who request a change in gender registration feel more or completely comfortable with the other option (M or F). If one were to actually register gender identity, two or three options would be far from sufficient.³

Researchers who use data from the National Register/Crossroads Bank must be aware that they are handling data related to legal gender registration, which does not correspond 100% with sex assigned at birth, let alone with gender (identity).

2. Data regarding gender identity are important for accuracy and reliability

It is important for researchers to clarify **which data they need to answer a research question**: do they need information about the legal (current) gender registration (including whether it has ever been adjusted)? Do they need information about gender identity? Information about gender expression? Information about sexual orientation? Often, the aspects of sex assigned at birth, legal gender registration, and gender identity are used interchangeably.⁴ As a result, it is not clear to respondents what is meant with the question, and researchers cannot be sure what data they have collected. Proper wording of the questions and inclusive answer options can increase the accuracy and reliability of the collected data.

3. Data related to gender identity are important for knowledge acquisition

It is important to collect data on the specific contribution of 'gender diverse' identities through general population research, in order to improve the social position of transgender and gender diverse individuals, and scientifically understand the specific contribution of gender identity on a researched topic (e.g. health, employment, household composition, etc.). To date, such population research has not been conducted. In the past decades (in Belgium), only targeted research has taken place, specifically aimed at transgender and gender diverse individuals.⁵

The collection of data in general population studies will not only provide insight into epidemiology⁶, but also destigmatize gender minorities, document their experiences and characteristics, and inform policy choices. While targeted transgender research can delve more deeply into the *specific* living situations and experiences of this group, general survey research that focuses on these aspects provides the opportunity to clarify the significant contribution of the gender aspect and detect significant differences between cisgender and transgender groups. **The concept of gender identity can be assessed in each survey.** In any case, each researcher should realize that asking about gender can no longer be done dichotomously (unless referring to the current/original legal gender registration), and that the use of terms such as 'gender' can lead to confusion. The goal, nature of the research, and target audience will determine which aspects need to be mapped out.

³ None of the four aspects described above can be questioned in a dichotomous way. Thus, 'sex assigned at birth' itself already has many exceptions (e.g. variations in sex characteristics, also called 'intersex'). For researchers it seems easier to assess sexual orientation or gender expression with a question multiple answer options than when assessing sex assigned at birth or gender identity.

⁴ An example: Are you a) male, b) female, c) other?

⁵ See e.g. Motmans, J., Wyverkens, E., & Defreyne, J. (2017). [Leven als transgender persoon in België. Tien jaar later](#). Brussel: Instituut voor de gelijkheid van vrouwen en mannen.

⁶ Zie bv. Zhang, et al. (2020). [Epidemiological considerations in transgender health: A systematic review with focus on higher quality data](#). *International Journal of Transgender Health*, 21(2), 125-137.

B. How to best operationalize gender identity?

To assess gender identity in survey research, many variations are possible: continuous 5- or 7-point Likert scales, closed answer options, open-ended questions, etc. The answer options can also vary depending on the design of the research, the target population, and the use of language in the local context. **Research from the Netherlands and Belgium indicates that assessing gender identity via continuous scales yields a higher percentage of gender diverse respondents than using a categorical approach with a limited number of labels/identities.** Thus, the assessment method clearly influences the results.

The recommended assessment method also depends on the type of research, either general population research or targeted surveys. Attention should also be paid to the age of the target group (adults or minors). In this advice sheet, **we provide guidance when conducting survey research where the adult respondents fill out the survey themselves.** For other situations, we refer to the more extensive advisory note.

1. Target group-specific research

For **target group-specific research**, it is recommended to make a distinction between:

- Questions about current legal gender (and whether or not it has been changed)
- Questions about gender labels used (with multiple answer options)
- A continuous operationalization of gender identity. A 5- or 7-point Likert scale can be used. Research shows that a 7-point Likert scale better reflects the continuous nature of a variable, although a 5-point Likert scale more quickly reaches sufficient sample sizes. Gender identity should be measured using two scales, one for male gender identity and one for female gender identity.
- Questions about the sex assigned at birth may be unnecessary and potentially painful to assess in this context.
- Questions about the desired gender group categorization by the researcher may be recommended for recoding purposes during data-cleaning (see, e.g., Motmans, et al., 2017).

2. General population research

In general population research, there are different options for *exploratory* studies that do not aim to compare groups. Depending on the space available in a survey and the importance of accurate measurement, a researcher may consider the following options:

a) Continuous scales for gender identity (one for masculinity, one for femininity)

Advantage: This approach acknowledges diversity, and respondents are not required to choose a category that may make them feel excluded.

Disadvantage: It is difficult to use this approach in general research to compare cisgender and gender diverse respondents because it is challenging to interpret answers and create groups (e.g., cisgender and transgender). The boundaries for identifying groups are still arbitrary, and an additional control question for identifying as transgender is not always applicable to every transgender person. Further research is needed to understand how the different scores relate to each other to develop a good understanding of gender identity and to use this approach in general population research. Several studies have already established cutoff values, depending on the type of the scale used (see advisory note).

b) The two-step model

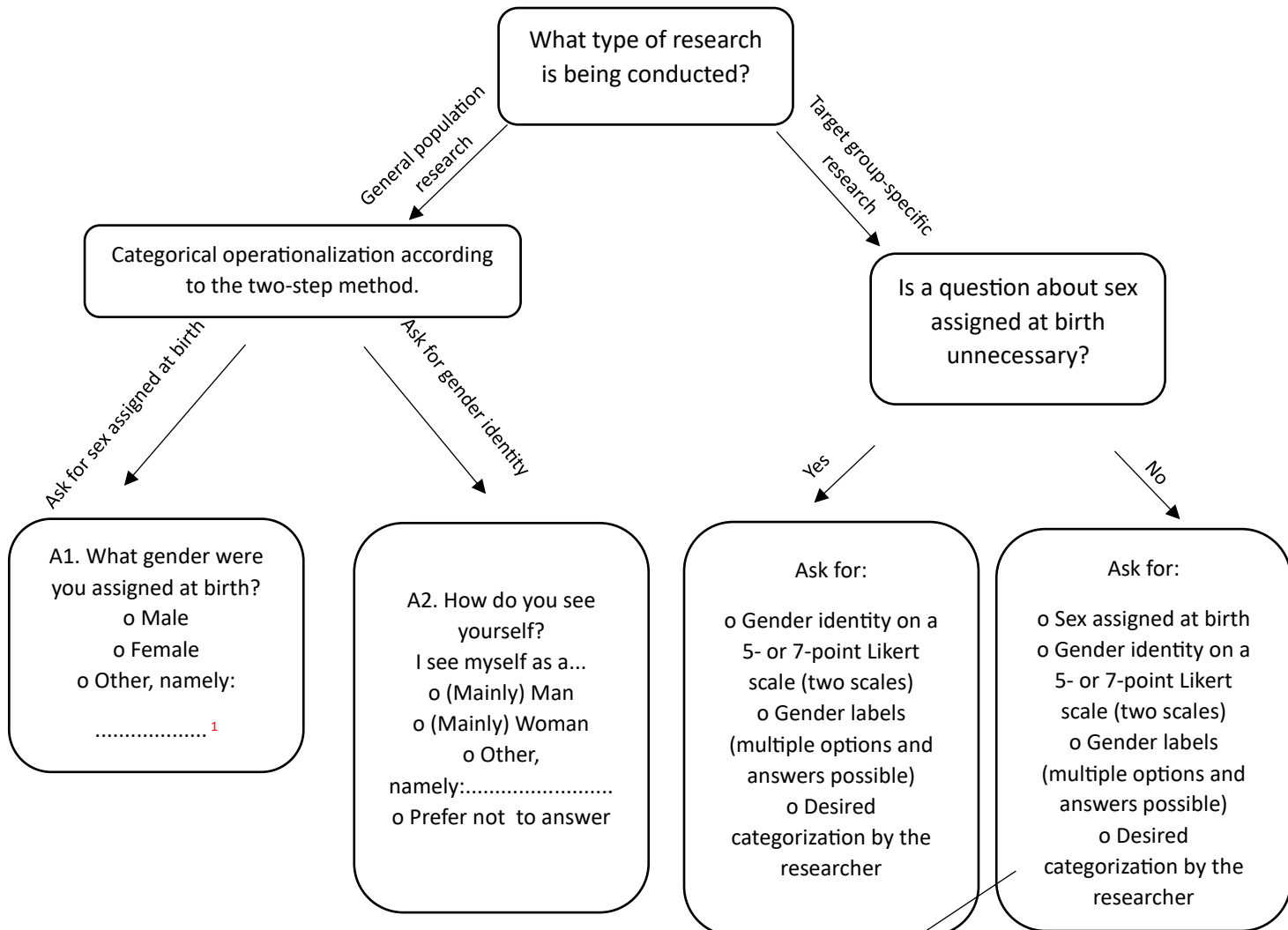
When conducting **general population research**, it is recommended to use a categorical operationalization according to the two-step method. The two-step method consists of a question about sex assigned at birth, followed by a question about gender identity. Both questions are categorical. We realize that information is lost with this approach, but there are gains in terms of applicability to usually long questionnaires and they provide clarity for every audience.

Advantage: Simple and space-saving.

Disadvantage: Little information about what the experienced gender identity entails (e.g., desire to make medical and/or legal changes, social outing, etc.).

3. Decision tree for questions about gender identity

This roadmap can be followed when gender identity is included as a variable in research.



- If A1⁷ Male and A2 Man: Cisgender man
- If A1 Female and A2 Woman: Cisgender woman
- If A1 Male and A2 Woman: Transgender woman
- If A1 Female and A2 Man: Transgender man
- If A1 Other or A2 Other/Prefer not to answer: Other

⁷ In Belgium & the Netherlands, it is mandatory to register the birth gender. In the context of international adoption and countries where a third option can be registered on the birth certificate, a third option may be of interest

Question about **sex assigned at birth**: At birth, you were registered as (gender as registered on your birth certificate):

- M
- F

Gender identity on a 5- or 7-point Likert scale:

To what extent do you feel like a man?

Not at all						Completely
1	2	3	4	5	6	7

To what extent do you feel like a woman?

Not at all						Completely
1	2	3	4	5	6	7

Gender labels:

How do you describe your gender identity? In your feelings and thoughts, you are a (multiple answers possible):

- Man
- Woman
- Man with a transgender history
- Woman with a transgender history
- Man who crossdresses
- Woman who crossdresses
- Trans man: a person with a female assigned sex at birth, but a male gender identity
- Trans woman: a person with a male assigned sex at birth, but a female gender identity
- Genderqueer
- Non-binary
- Polygender
- Genderfluid
- Other:

Desired categorization by the researcher:

To analyze the data from this study, we can only use a limited number of the above categories. Therefore, we would like to ask which group best fits how you currently identify? Please check the answer that currently best describes you. I prefer to be classified into the group of:

- (Trans) man
- (Trans) woman
- Crossdresser
- Genderqueer / agender / polygender / genderfluid / non-binary
- I don't know, I have no preference.