

**Developing and validating a visual questionnaire for the study of impersonalisation
strategies: A design thinking approach**

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Abstract

This paper reports on an interdisciplinary, collaborative project grounded in linguistic theory on impersonalisation and visual communication theory on wordless visual narratives.

The aims of this practice-based research project is to develop an alternative to existing methods of studying impersonalization strategies through interdisciplinary collaboration and to test its usefulness for identifying not only the range of possible linguistic strategies of impersonalization but also the preferred strategies for specific impersonal uses. The group of eighteen collaborators consisted of two linguists, one graphic design lecturer and fifteen final-year graphic design students. The students were responsible for designing visual prompts for the questionnaire that i) should not limit the possible linguistic answers, ii) must be able to accommodate any impersonalisation strategy, iii) should not contain any limiting linguistic clues, and iv) had to comply with the criteria on the basis of which the twelve impersonal uses are distinguished from one another. The questionnaire was piloted in two phases. After each phase, students adjusted and refined their visual prompts. A validation phase indicated that the finalised questionnaire fulfils its functions, since at least sixteen different impersonalisation strategies can be distinguished, and preferable strategies for each impersonal use can be identified.

1 Introduction¹

Impersonal constructions can be described as “constructions lacking a referential subject” (Malchukov & Siewierska 2015:20). Siewierska (2008) explains that the subject of the sentence describing the impersonal use is of particular relevance, since “[t]he syntactic characterisation of impersonality involves subjecthood. Impersonal constructions are seen to either lack a grammatical subject altogether or alternatively feature only a pleonastic (semantically empty) subject, be it an overt one or covert one”.

Traditionally, two main types of impersonal use or type are distinguished, namely *universal* impersonals, and *existential* impersonals (cf. Gast & van der Auwera 2013). An impersonal use is universal when it applies to *everyone* relevant to or included in the particular context. On the other hand, an impersonal use is existential when it makes a statement about the actions of a *particular person or group* of people that you do not know or do not want to specifically identify. Compare (1) to (4). In each example, the pleonastic – or rather, impersonal – subject is emphasised:

(1) Afrikaans

Mens leef net een keer.

Humanlive only one time

‘One only lives once.’

(2) German

Man sollte nicht trinken und fahren.

man shall not drink and drive

‘One shouldn’t drink and drive.’

(3) Dutch

Men zegt dat avacados erg gezond zijn.

theysay that avacados very healthy are

‘They say that avocados are very healthy.’

(4) English

They have increased the highway’s toll charge again.

The first two sentences provide examples of universal impersonal uses. The context **in (1)** applies to *all* humans, since all humans only live once. **Example (2)** applies to all humans to whom the context relates, namely all those who (can) drive vehicles. People who do not drive are excluded from the context in this statement. The third and fourth examples illustrate existential impersonal uses. The pronominal subject in **(3)** refers to a particular but unidentified group of people who are presented by the speaker as being of the opinion that avocados have a high nutritional value. It does not include *all* humans, as shown by the failure of any paraphrase with, for example, ‘everyone’ or ‘all people’. **In (4)**, it can be assumed that the subject – though not named or specifically identified – is not completely unknown to the interlocutors. It is clear from the state of affairs that the impersonal pronoun *they* refers to the institution determining the toll charges for the roads of the particular region. If the statement was made by a speaker in South Africa, for example, *they* would clearly refer to the South African National Roads Agency Limited, SANRAL. The point **in (4)** is, however, that the speaker does not wish to name this institution and prefers to present it as some vague collective group of people.²

Impersonalisation has been a popular area of research in recent decades, as the large number of publications on the topic suggests (e.g. Kitagawa and Lehrer 1990; Luukka & Markkanen 1997; Egerland 2003, Hoekstra 2010). The focus in most of these studies is on the so-called ‘human impersonal pronouns’.³ **Examples (1) to (4)** illustrate this impersonalisation strategy. But impersonal pronouns are *not the only impersonalisation strategy* that speakers employ, and it may not even be the *preferred strategy* in most of the impersonal uses (cf. Siewierska 2008; Posio & Vilkina 2013; Gast 2015). So far, little research has been done on other possible impersonalisation strategies – such as indefinite pronouns as in **(5)**, agentless passives as **in (6)** or full noun phrases as **in (7)** – and in particular on their actual usage, for instance, compared to human impersonal pronouns. There may even be more impersonalisation strategies speakers employ that have not yet been properly identified or investigated.

- (5) Afrikaans
Iemand *het my kar gesteel.*

someone have my car stolen

‘Someone has stolen my car.’

(6) Dutch

Mijn geld is gestolen!

my money is stolen

‘My money has been stolen!’

(7) English

People say that the town is deteriorating.

A possible reason for the lack of available research is the fact that it is really challenging to investigate the various possible impersonalisation strategies in language use, as the current known and available research methods to study impersonal constructions, show certain gaps, as will be explained below. To date, mainly three methods have been used to study or determine impersonal constructions in specific languages: consulting the available grammars or undertaking informal surveys among (native speaker) linguists (e.g. Siewierska 2011; Gast & van der Auwera 2013), examining corpora (e.g. Marin-Arrese, Caro & Becerril 2001; Coussé & van der Auwera 2012) and recruiting speakers of a particular language to complete a linguistic questionnaire (e.g. Siewierska 2008; Garcia, Sallandre & L’Huillier 2018). However, all these methods have their shortcomings for investigating all the different possible strategies of impersonalisation.

Firstly, all three methods assume that all possible ways of expressing impersonalisation have already been discovered, and therefore investigate impersonalisation deductively. In Van Olmen and Breed’s (2018a) acceptability questionnaire, for instance, speakers were asked to assess the acceptability of only the human impersonal pronouns (HIPs) in their language. Furthermore, the questionnaire of Siewierska and Papastathi’s (2011) did include other strategies than HIPs, but they again only offered a predetermined set of established forms (including passives and nouns like ‘people’). Thus, other strategies could, in principle, have been included but would, by definition, have been restricted to constructions already known to the researchers.

Secondly, previous research suggests that certain impersonal contexts (e.g. ‘they’ve been eating pizza in here’, where the existence of the (group of) individual(s) consuming pizza is inferred from the situation) do not occur very often. For anyone interested in such contexts, corpus research in particular is not particularly helpful in that it cannot provide them with sufficient numbers of cases of established impersonalisation strategies and it is impossible to look for the contexts in which other impersonalisation strategies may appear. Some corpora might not even provide examples of all the different impersonal uses, let alone the different strategies that are being used by speakers in each of these uses (also compare Siewierska & Papastathi 2011: 591-592, as well as Van Olmen & Breed, 2018b:799 for a further discussion on the issues of a corpus investigation when investigating impersonalisation).

Thirdly, those linguistic questionnaires (e.g. completion tasks) that tried to get information about the preferred impersonalisation strategies, were forced to use blanks in their stimuli (i.e. the subject slot) that clearly favored human impersonal pronouns – making it difficult for speakers to fill out a passive, for instance, even if they would have preferred this strategy.

The double questionnaire based approach from Van Olmen and Breed (2018a, 2018b) can serve as an example here to illustrate the limitations of using questionnaires to investigate impersonalisation strategies. In their study, a so-called “double questionnaire based approach” was followed. In other words, two different questionnaires, namely an acceptability judgment task (AJT) and a completion task (CT), were used to collect data regarding impersonalisation in three West-Germanic languages - Afrikaans, Dutch and English.

Both questionnaires were designed to test the use of the different impersonal pronouns in twelve impersonal contexts by speakers of each of the three languages. Each context was presented randomly to the respondent as two different scenarios. The questionnaire therefore consisted of 24 questions. The respondents then had to, depending on the questionnaire answered, perform a specific task to either test the acceptability of a specific impersonal pronoun or provide their own preferred⁴ impersonalisation strategy (but limited to pronominal or nominal strategies).

Figure 1 is an extract from the English acceptability judgment task.

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ALL FINE}**

Figure 1: English acceptability judgment task (Van Olmen & Breed 2018b)

<Figure 1>

As can be seen above, different scenarios depicting the distinguishable impersonal contexts were presented to the respondent. The respondent was then asked to indicate on a scale of 1 to 5 (1 being completely unacceptable or ungrammatical and 5 being completely acceptable or grammatical) to what extent he or she finds the use of each of the different English impersonal pronouns acceptable in the given context.

Figure 2 below provides an extract from the English completion task.

Figure 2: English completion task (Van Olmen & Breed 2018b)

<Figure 2>

The completion task was based on the same twelve contexts (which were presented twice in different scenarios, and therefore, like the AJT, also consisted of 24 questions). However, the difference between the AJT and the CT was that the syntactic position in which the different impersonal pronouns in the AJT were presented to the respondents, was left open in the CT. The respondent had to provide their own possible answer. In other words, the examples above indicate how the CT was used to determine what the preferred strategy of each of the respondents in the EXI-INF-PL would be. It would therefore have been possible for the respondent to fill in an impersonal pronoun such as *you*, *them* and *one*, but also another possible strategy, for example, an indefinite pronoun such as *someone*. However, the CT was limited to impersonalisation strategies that function as subject and it was not possible for the respondent to rephrase or reformulate the answer. It was, for example, not possible for the respondent to provide an answer in the passive voice, instead of using a pronominal or nominal subject.

The aims of this paper are therefore to develop an alternative to existing methods of studying impersonalisation strategies through interdisciplinary collaboration and to test its usefulness for identifying not only the range of possible linguistic strategies of impersonalisation but also the preferred strategies for specific impersonal uses.

The paper is structured as follows. Section 2 gives a brief description of twelve different impersonal uses, as well of the different criteria of impersonalisation. The methodology is set out in Section 3, while Sections 4 and 5 will discuss and evaluate the findings.

2 Twelve impersonal uses and their determining criteria

In Van Olmen and Breed (2018b), twelve⁵ impersonal uses or contexts are distinguished. The uses can be differentiated from each other based on seven criteria for impersonalisation, namely i) quantification, ii) perspective, iii) veridicality, iv) modality, v) (un)knownness, vi) number and vii) speech act verb. The different impersonal contexts, as well as a English example of each, are presented in Table 1 below, followed by a brief description of the seven impersonal criteria.

Table 1: Twelve impersonal uses

USE	QUANTIFICATION	PERSPECTIVE	VERIDICALITY	MODALITY	(UN)KNOWNNESS	NUMBER	SPEECH ACT VERB
UNI-INT-NVER-NMOD	universal	internal	non-veridical	nonmodal	N/R	N/R	N/R
UNI-INT-NVER-MOD	universal	internal	non-veridical	modal	N/R	N/R	N/R
UNI-INT-VER	universal	internal	veridical	N/R	N/R	N/R	N/R
UNI-EXT	universal	external	N/R	N/R	N/R	N/R	N/R
EXI-COR	existential	N/R	N/R	N/R	partly known	N/R	N/R

EXI-VAG-PL	existential	N/R	N/R	N/R	vague	plural	N/R
EXI-VAG-NN	existential	N/R	N/R	N/R	vague	number- neutral	N/R
EXI-INF-PL	existential	N/R	N/R	N/R	inferred	plural	N/R
EXI-INF-NN	existential	N/R	N/R	N/R	inferred	number- neutral	N/R
EXI-SPE-PL	existential	N/R	N/R	N/R	specific	plural	N/R
EXI-SPE-NN	existential	N/R	N/R	N/R	specific	number- neutral	N/R
SAV	existential	N/R	N/R	N/R	N/R	N/R	yes

- (8) English *What happens if you break your little toe?* (UNI-INT-NVER-NMOD)
- (9) English *One shouldn't drink and drive.* (UNI-INT-NVER-MOD)
- (10) English *You only live once.* (UNI-INT-VER)
- (11) English *In Italy they eat a lot of pasta.* (UNI-EXT)
- (12) English *They've raised the electricity tariff again.* (EXI-COR)
- (13) English *They've set off bombs in a few places in the city.* (EXI-VAG-PL)
- (14) English *They've found your student card in the bathroom.* (EXI-VAG-NN)
- (15) English *I see they had a party here last night.* (EXI-INF-PL)
- (16) English *Someone made popcorn in the staff room again.* (EXI-INF-NN)
- (17) English *They are calling you on both your phones.* (EXI-SPE-PL)
- (18) English *They are waiting for you in front of your office.* (EXI-SPE-NN)
- (19) English *They say this place is haunted.* (EXI-SPE-NN)

The first criterion, namely **quantification** indicates whether the subject of the sentence has a universal quantification (UNI) and applies to everyone relevant to or included in the particular context (compare **examples (8) to (11) above** **{NOT ABOVE}**) or whether it has existential quantification (EXI) and assumes that there is a specific but unidentified (group of) individual(s) to whom the state of affairs applies, as in example **(11) to (19)**.

Perspective, as the second criterion, concerns the speaker and/or the addressee. An impersonal use is said to involve an internal point of view (INT) when “a ‘center of

consciousness' (e.g. the speaker or hearer) identifies, or is identified, with the set of referents under discussion" (Gast and van der Auwera, 2013: 139), as illustrated by examples (8) to (10). In (11) however, the perspective is external (EXT), since the speaker and addressee are excluded.

The third criterion, **veridicality**, has to do with the truth of the state of affairs. A use is *veridical* (VER) when the state of affairs is presumed to be true, as in (10). A use is *non-veridical* (NVER) when there is no such assumption or, in other words, when the state of affairs is hypothetical only, as in (8) and (9).

Modality, the fourth criterion, has to do with the modal or non-modal form of an utterance. A use is *modal* (MOD) when its non-veridicality is expressed through a modal form, such as the verb *should* in (9). A use is *non-modal* (NMOD) when its non-veridicality is conveyed through other means than a modal expression, as in example (8). (Un)knowness

(Un)knowness, as the fifth criterion, concerns the amount of information regarding the (implied) subject that is known to the speaker. Four types of (un)knowness can be distinguished, namely i) partly known, ii) vague, iii) inferred and iv) specific. A use is *partly known* when it is more or less clear from the state of affairs who the particular group of people responsible for it are, even though they are not explicitly named (compare example (12)). For such contexts, the term "corporate" (COR) is often employed. A use is *vague* (VAG) when the speaker knows of the particular event described but is unable to identify the particular person/people responsible for it based on the available evidence, as in (13) and (14). A use is *inferred* (INF) when the actual event described is not known but deduced from some signs in the situation and the existence of the person/people accomplishing it is also assumed, as in (15) and (16). Lastly, a use is *specific* (SPE) when the speaker is at the same time and place as the person/people accomplishing the event there and then and may therefore have strong suspicions about who (s)he/they is/are but does not identify him/her/them, as in (17) and (18).

The sixth criterion, **number**, indicates the number of the people included in the (implied) subject. A use is *plural* (PL) when the subject can only be more than one person, as in (13), (15) and (17). A use is *number-neutral* (NN) when the number of the (implied) subject is not known and it can be one person or more than one person, as in (14), (16) and (18).

The seventh and last criterion has to do with a use in which a **speech act verb** (SAV) like ‘say’ and ‘claim’ occurs and the (implied) subject can easily be replaced by ‘people’. It has an evidential function in that the speaker attributes some proposition to an indeterminate set of individuals. **Sentence (19) is an example.**

3 Collaborative Interdisciplinary Approach to Study Impersonalisation

The aim of this project is to design and test a research questionnaire that can be used to investigate all possible (known and unknown) impersonalisation strategies in all twelve impersonal uses. Since a questionnaire-based approach has its clear advantages compared to a corpus-based approach, the study seeks to develop a questionnaire that can investigate both the *possible* and the *preferred* impersonalisation strategies. This questionnaire must therefore: i) not limit the possible linguistic answers, ii) be able to accommodate any impersonalisation strategy, iii) not contain any biased or limiting linguistic clues or cues, iv) take into account all of the criteria on which the twelve impersonal uses are distinguished from one other.

It was therefore decided to develop a questionnaire similar to those in Van Olmen and Breed (2018a, 2018b). However, instead of presenting the contexts triggering particular impersonal uses as textual descriptions to the respondents, they would be given as visual narratives. Respondents would thus be able to evaluate the contexts and come up with answers without being limited to using a particular formulation beforehand.

This project took the form of a collaborative, interdisciplinary project grounded in the linguistic theory on impersonalisation and the visual communication theory on wordless visual narratives. The interdisciplinary group of eighteen collaborators consisted of two linguists, one graphic design lecturer and fifteen final-year graphic design students. The development of the questionnaire was conducted as a practice-based research project, with the teaching and learning purpose of training graphic design students to navigate the limitations of and interactions involved in a client brief. The two linguists adopted the role of the client and the brief said that the fifteen graphic design students – under the guidance of their lecturer – were responsible for illustrating the visual representations of the impersonal uses that will be used as “visual questions or prompts” in the questionnaire.

3.1 *The Teaching and Learning Context*

The fifteen student collaborators were enrolled for the honours module *Illustration: Professional Practice*, which forms part of the “BA Graphic Design with Illustration” degree at the [anonymised institution], South Africa. It includes students from both the multimedia and traditional design disciplines. On the completion of this degree, students are expected to be able to pursue a career in the creative and design industries as well as have the necessary skills and knowledge to proceed with a Master’s Degree.

The project brief required each student to apply the design thinking model to the development of two wordless sequential art narratives. Sequential art is a genre of visual culture artefact that makes use of a series of intentionally ordered, aesthetically effective images and/or words in order to convey meaning. This definition is broader than what most literature offers, as the term is often used interchangeably with comics and graphic novels but, for the purpose of this project, the meaning of sequential art was kept as broad as possible to allow for the widest range of possible solutions.⁶ Wordless narratives are a sub-genre of sequential art and achieve the same result without the use of words. It requires the reader to decode meaning without the support of words. In this project, the wordless narratives to be developed had to visualise pre-assigned linguistic impersonal uses in a manner that would cause readers to provide a usable linguistic response (i.e. an impersonalisation strategy, as determined by the clients/linguists).

3.2 *Theoretical Framework: Wordless Narratives*

Nodelman (1990:198) points out that in the telling of narratives, words tend to be explicit. They are presented in linear, sequential structures that explain causality and focus the reader’s attention on aspects of a narrative that are important. This facilitates a largely standardised interpretation/decoding of meaning. Pictures or visual narratives, as alternative storytelling media to words, tend to be diffuse. The viewer initially engages with the entire image at once (Nodelman 1990:198). Composition can focus attention on a particular area of an image and suggest causality but the meaning decoded from the full complement of visual

components is ultimately determined by the viewer and the lens of lived experiences through which the image is processed. Therefore, the illustrator has some degree of control over a visual narrative's general plot, but without words, the image invites the viewer to impose and interweave their own thoughts and backgrounds on and into it, thereby personalising the encoded meaning. The viewer has freedom to articulate this personalised plot or meaning with words of their own, whether verbally or in thought (Horwat 2018:176; Arif & Hashim 2008:121). Images are positioned as a multimodal medium for storytelling, whose narratives cannot be entirely controlled by the illustrator, through the image. This potential for personalisation makes the use of wordless visual narratives an appealing alternative to the text-based questions, considering the objective of the current study. It may, however, also pose a potential risk, since one never knows from which perspective/background the respondent is going to look at the illustrations. However, the potential of this medium for fulfilling the study's objective outweighed this risk. Therefore, students were given the development of wordless narratives / wordless narrative research⁷ as the specific visual strategy to use for solving the problem that they were presented with.

For wordless narratives to function in the context of this questionnaire, the illustrations needed to adhere to a number of principles. Firstly, Google Forms as a platform provided scale specifications which meant that illustrations that were dependent on sequential images, could not use more than three images alongside one another. Otherwise, the questionnaire would only be user-friendly on laptops or desktop computers. Secondly, illustrations needed to take the viewer's prior background and knowledge into consideration. Image-dependent storytelling that depicts unfamiliar objects, actions or scenes or familiar objects, actions and scenes in an unfamiliar way are open to misinterpretation without the support of text. Thirdly, traditionally, the relationship between sequential images are contextualised by text. Therefore, should the visual narrative require sequential images, the juxtaposed images need to very explicitly show transitions as opposed to relying on key frames. For example, Figure 3 makes use of key frames. Without text, the relationship between the person and the ship could be interpreted as him looking at a ship as opposed to contextualising the person as a passenger on the ship the way the use of explicit transitions does in Figure 4.

**Figure 3: Key frame scene equivalent of explicit transition scenes from *The Arrival*.
(Tan 2006)**

<Figure 3>

Figure 4: Scenes from *The Arrival* using explicit transitions as published. (Tan 2006)

<Figure 4>

Fourth, the illustrations needed to be developed through the lens of acknowledged possible ambiguity. While wordless narratives in the context of children's picture books are intentionally open-ended, for them to be functional in a visual questionnaire, students had to sacrifice illustrative flair for clarity of communication.

3.3 *Design Thinking Methodology (DTM)*

The development of a visual questionnaire on linguistic impersonalisation strategies posed a problem that required an interdisciplinary solution. Individually, neither the illustrators, nor the linguists had the full complement of knowledge and skills required to develop the questionnaire's visual components – the illustrators did not possess the required theoretical understanding of the linguistic phenomenon under investigation and the linguists did not possess the required practical image-making skills. As an approach that encourages team work and multidisciplinary in the development of solutions, design thinking was used to develop the questionnaire's illustrations (Camacho & Kelley 2016: 90).

Design thinking⁸ is a human-centred design approach that is dependent on three principles, namely empathy, ideation and experimentation. These principles support the development of viable solutions that are built around the user's needs and human perspectives within the limitations of the available technology and resources (Chasanidou et al. 2015:12). Empathy requires the designer to view a situation and proposed solutions from various perspectives with particular emphasis on the needs of the user. Ideation is focused on generating high volumes of possible solutions; and experimentation refers to the testing of solution variations

before deployment. The combination of these three principles forms the foundation of the Design Thinking Model (Hoffman 2016; IDEO 2019). Numerous variations of this model exist wherein the phases of the solution-development process are divided and described differently. However, all variations engage the three principles described above, make use of an iterative design process and position failures as assets from which to learn and improve the solution, as opposed to instances to be feared. This makes this model highly suited to engaging with problems seated in unfamiliar territory to the designer-illustrator, as this study was.

Figure 5 is a visual depiction of the version of this model developed by the Hasso Plattner Institute of Design at Stanford (HPI), which was adapted for use as a methodology in this study. It describes an iterative structure at the macro level that divides the solution-development process into five stages or modes of engagement with the problem: empathise, define, ideate, prototype and test.

The empathy mode of engagement entails understanding the situation and the people that it affects, through direct engagements such as observation and conversation. The definition mode requires the designer to make sense of the gathered information in order to draw conclusions about the nature of the problem. It should result in a problem statement that defines the design challenge, its scope and the criteria that can be used to evaluate competing proposed solutions. The ideation mode is focused on the generation of multiple possible solutions through divergent thinking. A selection of the proposed solutions is built in the prototyping mode and these are tested in the last mode by the users in order to get feedback on the successes and failures thereof. HPI (2010) stresses that although the model is divided into stages that appear chronological, it is not intended as a linear progression but rather as a framework wherein the designer can cycle through the process multiple times and engage with the modes in various orders depending on developments or feedback. The cognitive processes and methods used at the micro level of each mode of engagement are not prescribed, allowing for the versatile adaptation of the model to a wide variety of contexts.

Figure 5: Design thinking model (Hasso Plattner Institute of Design at Stanford, 2010.)

<Figure 5>

In order to accommodate the educational context in which these illustrations were developed, this model was adapted as depicted in Figure 6 and micro level activities were identified to suit the methodological repertoire of the students. The first adaptation was that the problem was identified within the situation and clarified by the client (one of the linguists) instead of the designers (students). A project briefing (launch) presented students with the specific design problem, namely the limitations of the questionnaires used in earlier research (compare again Section 1). The project briefing also informed students of the required strategy for its solution – the development of wordless visual narratives to replace a portion of the current language-based questions – instead of them having the freedom to choose their own strategy for solving the problem.

**Figure 6: Design thinking model adapted to the development of the visual questionnaire
(own figure)**

<Figure 6>

The project briefing overlapped with the empathisation mode. It included exchanges with the client (the linguist) in the form of a presentation and a question session that dealt with successes and failures of previous studies, the basics of the necessary linguistic theories and an explanation of their objectives, needs and challenges. Following these exchanges, a transition was made into the definition mode. The student corps was given the broad problem statement: “How can a visual narrative be developed to replace a text-based narrative with [linguistic impersonalisation criteria] in a questionnaire to instigate impersonalised responses?”. Each student was required to narrow this problem statement to accommodate the impersonalisation contexts assigned to him/her and to define the limitations within which he/she would need to illustrate. The definition mode transitioned into the ideation mode. This mode had a double objective: the conceptualisation of, on the one hand, a *fabula* and, on the other, a *sjuzhet*⁹ suitable for capturing the assigned impersonalisation criteria. The former made use of linguistically formulated scenarios to explore multiple solutions. These scenarios were filtered by both the client, as a linguist, and the module lecturer, as an illustrator, to identify scenarios that are both appropriate to the assigned impersonalisation contexts and

illustratable. Students cycled back to the definition mode if their proposed solutions were consistently not approved. If a scenario was approved, the student would proceed to developing a range of thumbnails, quick sketches meant to rapidly explore a wide range of possible visualisations (*sjuzhet*) of the approved scenario (*fabula*).

Once an appropriate *fabula* was conceptualised and a matching *sjuzhet* was developed, students followed ‘path a’ in Figure 6 and refined the approved thumbnail. This served as a prototype that was tested in a pilot questionnaire by the linguists. Students had no direct contact with the questionnaire’s respondents. The linguists compiled and interpreted the responses for the students and offered suggestions where they felt it appropriate. Depending on the feedback, students either cycled back along paths 1, 2 or 3. If the feedback showed the prototype to be successful in inciting usable responses, the student followed path 1, where they refined the prototype to reflect a completed illustration product. If the feedback revealed the prototype to have potential but not yet successful in inciting the desired responses, the student followed path 2, where further *sjuzhets* were explored. The second adjustment at the macro level of the design thinking model included a sharing mode, where students shared their feedback and corresponding new ideas with their classmates, the lecturer and linguist for constructive criticism and suggestions, before developing another prototype. Feedback that reflected no usable answers required the student to follow path 3 and repeat the creative process with a different understanding of the nature of the problem so that ideas for a new prototype could be shared and then developed. Each scenario went through the same iterative approach that makes use of action research in each mode of engagement.

The second round of prototypes were used in a validation pilot questionnaire. The results of this validation were very successful. However, though the validation of the questionnaire resulted in valuable and useful results regarding the possible and preferred impersonalisation strategies in Afrikaans (see section 4), the purpose of the pilot questionnaires was not to obtain linguistic research results on impersonalisation strategies. Rather, they formed a crucial part of the design process, ensuring the development of a visual linguistic questionnaire. The illustrations will be used without adjustment in the final questionnaire that will be deployed to collect official data¹⁰.

4 Results, discussion and evaluation

The previous section explained how a DTM approach guided students to design the visual questionnaire. Using two specific examples from this interdisciplinary collaboration project, this section focuses specifically on the last two phases of the DTM, namely the *prototype* and the *test* phases of the design process. Two examples from student work are given to illustrate how the feedback from two pilot questionnaires led the students to refine their illustrations in order to create a successful visual linguistic questionnaire (validated by a third and finalised questionnaire). Both the refined illustrations from the first and second pilot questionnaires used in the validation will be discussed. We will also make an overall evaluation of the success of the validation questionnaire.

4.1 The Respondents of the pilot questionnaires and validation

Since the feedback from respondents can contribute to the creation and refinement of a linguistic questionnaire, it was decided that “expert respondents” - in other words, respondents who are to some extent engaged in language research - would be involved in the pilot and validation phase. The invited group consisted of seventeen Afrikaans language or literature lecturers and postgraduate students, all affiliated to the same institution as the first author. The seventeen respondents were invited to complete both pilot questionnaires, as well as to participate in the validation, but, in each case, only thirteen respondents completed them. As questionnaires were answered anonymously, it was not clear whether the same thirteen respondents answered the three different questionnaires every time.

Apart from the instructions in the questionnaire, the respondents were not given any further explanation regarding the aims of the study and did thus not know which types of answer they were “expected” to provide for each visual stimulus. Their answers could therefore be regarded as an indication as to whether the illustrations and/or instructions could be used to successfully elicit impersonalisation strategies for the different impersonal uses. Furthermore, the relationship between the respondents and the first author is of such a personal nature that the respondents sometimes also gave her verbal feedback on aspects of the questionnaire, for example when they felt that a particular illustration was inappropriate or offensive, a certain illustration had an ambiguous interpretation or the questionnaire took too long to complete.

4.2 Pilot Questionnaire 1 (PQ1)

In PQ1, an online visual questionnaire consisting of fifteen illustrated scenarios or visual questions (i.e. one prototype illustration from each of the students) was completed by thirteen respondents. A link to an anonymised PQ1 can be found in endnote¹¹. This questionnaire provided almost no linguistic clues or written contextualisation to the respondent. Respondents were only presented with a general instruction on the questionnaire.

This instruction was very similar to the instruction provided in the two questionnaires of Van Olmen and Breed (2018a, 2018b):

“In this questionnaire you will be presented with a number of visual scenarios, which you must then describe in a single sentence according to the instructions under each scenario.” [Translation of Afrikaans from pilot questionnaire]

Furthermore, for each scenario only vague instructions were presented, for example “Please formulate the question in the speech bubble that one character asks the other” [translated], or “Explain in a single sentence what this scenario illustrates” [translated].

Scenario 7 from PQ1 – compare Figure 7, depicting an UNI-INT-VER context – serves as an illustration of the design thinking methodology that was followed by the student. The desired answer the student envisioned with this illustration was formulated as: *“Mens kry koud in die winter” | ‘One gets cold in winter’*. This answer, and illustrated scenario to prompt it, was selected from a range of other options (some of which did not adhere to the criteria for UNI-INT-VER, which was not unexpected considering the student’s lack of a linguistic background) and went through various stages of refinement before the student could proceed to producing the illustration in Figure 7. It was initially penned by the student as *“Ons gaan Antarktika toe die vakansie. My ma het vir my twee ekstra baadjies gekoop want mens kry koud in Antarktika.” | ‘We are going to Antarctica this holiday. My mother bought me two extra jackets, since one gets very cold in Antarctica.’*. This extended narrative was revised due to two reasons. The first is that the scenario is complex with various conditions and relationships that would need to be established (intention to go on holiday in Antarctica, extra jackets have been bought, it is cold, the relationship of those going to Antarctica, the relationship of the speaker to the buyer of the jackets). In order to establish the full complement of conditions and relationships using a wordless visual narrative, a large

number of frames would be required. The approved scenario only has to establish two conditions – it is winter and it is cold. Wordless narratives take longer to “read” due to the high level of interpretation required of the reader/viewer; and would require a more significant investment of time to answer the questionnaire, which can be problematic for responses. The second reason for the scenario having to be revised is that the more frames there are in a wordless narrative, the more there is for the reader/viewer to choose as a focal moment. For a wordless narrative serving to prompt a specific type of response, this is problematic as the viewer might, for example, decide to comment on the jackets instead of the experience of the weather.

Figure 7: Scenario 7 from PQ1

<Figure 7>

Table 2 gives the respondents' answers to this question. Unusable answers (i.e. answers that did not illustrate the scenario as impersonal contexts) are indicated by *.

Table 2: Responses for Scenario 7 of PQ1

Respondent	Afrikaans instruction	English translation
	<i>Vraag: Bewoord in 'n enkele sin die woorde in die spraakborrel wat die een karakter vir die ander karakter sê.</i>	<i>Question: 'Formulate what the one character is saying to the other character in the speech bubble in a single sentence.'</i>
R 1	*Koue voete in lande waar dit sneeu is nie lekker nie.	* Cold feet in snowy countries are not pleasant.
R 2	*Die winter is om verskeie redes koud, die wind, temperatuur en selfs sneeuvlakke beïnvloed die ervaring van winter.	* Winter is cold for a variety of reasons, the wind, temperature and even snow levels affect the experience of winter.
R 3	*Dis koud regoor die wêreld!	* It's cold all over the world!
R 4	*Dit sneeu daar in die winter.	* It snows there in winter.
R 5	*Dalk moet hulle nie in 'n waterplas staan as dit dan sou koud is nie...	* Maybe they should not stand in a pool of water if it is so cold then ...
R 6	*Dit lyk of die mense baie koud kry.	* It seems that the people get really cold.
R 7	*Dit sneeu en is baie koud gedurende die	* It snows and is very cold during winter in

	winter in sekere lande.	certain countries.
R 8	*Sjoe, dit is baie koud!	* Wow, it's very cold!
R 9	*Alle lande se winters is koud.	* All countries winters are cold.
R 10	*Dit lyk of dit koud is.	* It looks cold.
R 11	In Switserland is die mense gewoon aan koue.	In Switzerland, people are used to cold.
R 12	Dit maak nie saak waar 'n mens bly nie, as dit sneeu is dit regtig koud.	It doesn't matter where you live, when it's snowing it's really cold.
R 13	*Dis koud regoor die wêreld!	* It's cold all over the world!

Therefore, it was necessary to consider the extent to which respondents could be guided by the instructions of the questionnaire to answer the questions in such a way that the answers are still useful to the researchers (i.e. as a description of an impersonal context) without affecting the respondent to choose one particular impersonal strategy over another.

Even though only one example is discussed in this section, the example can be regarded as typical of this phase of the development. None of the illustrations in this questionnaire provided a sufficient number of appropriate linguistic answers and all the illustrations needed to be refined further. Each student therefore had to consider the feedback of the respondents (as interpreted by the linguist) and refine their illustration for the next pilot phase. The linguist, on the other hand, had to devise appropriate linguistics clues that could accompany the visual questions.

4.3 *Pilot Questionnaire 2 (PQ2)*

PQ2 was very similar to PQ1. This questionnaire also consisted of fifteen scenarios or questions (i.e. the prototype illustration of the second impersonal context each of the students was responsible for), and was again given to thirteen respondents to complete. A link to an anonymised PQ1 can be found in endnote¹².

Scenario 9 of PQ2 – a UNI-INT-NVER-MOD context, compare Figure 8 – is shown here as an example of the design thinking methodology students followed in this second pilot. The

desired answer that the student envisaged for this illustration was formulated as: “*Mens moet eet*” | ‘*One must eat*’.

Figure 8: Scenario 9 from PQ2

<Figure 8>

Table 3 indicates the respondents' answers to this question in PQ2. Unusable answers (i.e. answers that did not illustrate the scenario as an impersonal contexts) are indicated by *.

Table 3: Responses for Scenario 9 of PQ2

Respondent	Afrikaans instruction	English translation
	<i>Vraag: Formuleer asseblief die sin in die spraakborrel wat die een karakter aan die ander karakter sê. Gebruik asseblief die woorde "honger" en "eet" of "geëet" iewers in die sin.</i>	<i>Question: Formulate the sentence in the speech bubble that the one character says to the other character. Please use the words "hungry" and "eat" or "eaten" somewhere in the sentence.</i>
R 1	*Mens dink jy weet wat 'honger' is, maar weet nie regtig hoe dit voel om sterwend van die honger te wees.	?You think you know what 'hunger' is, but you don't really know what it feels like to be starving.
R 2	As mens honger is moet mens hot dogs eet.	When one is hungry one must eat hot dogs.
R 3	*Die een is honger terwyl die ander hulle trommeldik eet.	* One is hungry while the other are eating until they are stuffed.
R 4	*Sjoe, die mense is honger en gaan nou lekker eet!	* Wow, people are hungry and are going to eat well now!
R 5	As mens honger is, dan moet mens eet.	If one is hungry, then one must eat.
R 6	*Almal is seker maar honger, al het hulle ontbyt geëet.	* Everyone is probably hungry, even though they have eaten breakfast.
R 7	*Ek is honger - ek het vanoggend laas geëet	* I'm hungry - I didn't eat this morning

R 8	*Dit lyk of die mense dae gelede geëet het	* People seem to have eaten days ago
R 9	*Die wat honger is, het geëet.	? Those who are hungry ate.
R 10	*(Geen idee.)	* (No idea.)
R 11	?Die wat honger is moet eet.	? Those who are hungry should eat.
R 12	*Waar kos skaars is is daar honger. In stede is daar wel kitskos wat gerieflik geëet kan word.	* Where food is scarce there is hunger. In cities, there is fast food that can be eaten conveniently.
R 13	*Sommige persone wat honger is kry nooit iets om te eet nie.	? Some people who are hungry never get something to eat.

Even though only four of the answers did describe some kind of impersonal contexts (namely the answers from R1, R9, R11 and R13), only one answer (the answer from respondent 5 – “If one is hungry, then one must eat”) can be regarded as an appropriate answer for the specific illustrated UNI-INT-NVER-MOD context. Most respondents appear to have inferred that the scenario is trying to illustrate the contrast between hunger and satiety, or wealth and poverty. Furthermore, one of the respondents indicated with verbal feedback that he found it problematic that “one character in this illustration looks like a starving person from Africa (with dreadlocks)”. Although this interpretation was inaccurate – since the student did not attempt to illustrate a stereotypical character from specific circumstances - this feedback did highlight possible problems regarding the interpretation of the illustration.

When looking at the answers presented for this question, as well the answers for the other scenarios in the questionnaire, it seems as though the respondents found the addition of a few contextual clues to each instruction useful. Although not all responses described the situations as impersonal contexts, all respondents correctly interpreted the narrative or sequence of events in each of the scenarios. It was therefore clear that more contextual clues should be provided to the respondents for each scenario in the final questionnaire.

4.4 Validation (VQ)

The results are based on a validation questionnaire (VQ) which was created from an improvement of two pilot questionnaires: PQ1 and PQ2. Although the instruction in PQ1 was similar to that in Van Olmen and Breed (2018a, 2018b) it attracted wider responses than had

been projected. For instance, only two of the thirteen answers could be regarded as descriptions of impersonal contexts, namely the answers from R11 and R12, though the first one counts not as a UNI-INT-VER but as a UNI-EXT strategy. From the results of this first pilot questionnaire, two important observations could be made. Firstly, it was clear that most of the respondents assumed that the illustration was focused on the state of the situation, in other words on the coldness of the winter, rather than on the experience of the person in the scenario (the universal subject, i.e. all people, who experience an icy winter as being cold). Secondly, even though it was omitted on purpose, the vague formulation of the instructions caused uncertainty amongst the respondents – and, based on verbal feedback from several of them, even irritation.

For PQ2, clearer instructions were provided to the respondent, including more clues. For example: “Formulate the sentence in the speech bubble that one character says to the other. Please use the words “life” and “Mars” somewhere in the sentence” [translated] or “Formulate a single sentence describing the illustration above. Use the words ‘water’ and ‘drink’ somewhere in the sentence” [translated]. Four of the answers describe some kind of impersonal contexts (R1, R9, R11 and R13), but only one answer (from R5 – “If one is hungry, then one must eat”) can be regarded as appropriate for the specific illustration UNI-INT-NVER-MOD context. Most respondents appear to have inferred that the scenario was trying to illustrate the contrast between hunger and satiety, or wealth and poverty.

The validation questionnaire consisted of 30 scenarios or visual questions, namely the refined illustrations after feedback from the respondents of PQ1 and PQ2. A link to an anonymised CQ can be found in endnote¹³.

This questionnaire was again given to thirteen respondents to complete. A new general instruction was provided on the landing page of this questionnaire:

“From this questionnaire we would like to learn more about how Afrikaans speakers express certain meanings in language. The questionnaire consists of a number of visual representations depicting specific events. In each presentation, instructions are provided on how we would like you to answer the question or describe the situation. So you can't just write anything here. You should present your answer in such a way that it says something about people in general or about people you don't know, in other words, people you can't identify in any way” [Translated from Afrikaans].

Similar to the instructions provided for each of the questions in PQ2, clear contextual clues were provided to respondents for each question in VQ. In most cases, the use of a specific verb was requested, and in most cases also another word, such as an adverb, adjective or the object noun. For example: “Formulate the question asked in the speech bubble. Please use the verb *“press/pressed”* and the word *“button”* in your answer” [translated]. The subject was omitted in all cases, and the requested verb was presented in all possible morphological forms.

Figure 9 presents the refined illustration of Scenario 7 from PQ1, as it was presented in VQ.

The pilot feedback from PQ1 highlighted what the readers/viewers were more likely to focus on. While the illustration of multiple individuals in the same weather conditions was intended to highlight the universality of the experience of winter, for the readers/viewers, it had instead highlighted the weather and respondents saw each character as an identifiable and distinct subject, which was problematic for the aim of studying impersonalisation strategies. In order to address this, the student altered the *sjuzhet*. Instead of juxtaposing experiences of winter, the wordless narrative now juxtaposes experiences of the four seasons with an emphasis placed on winter. The characters were also altered to be overtly abstract representations of human beings to encourage an interpretation of each character representing a broader group of people.

Figure 9: Refined illustration of Scenario 7 from PQ1 for VQ

<Figure 9>

Table 4 indicates the respondents' answers to this question. Unusable answers (i.e. answers that did not illustrate the scenario as an impersonal contexts) are indicated by *.

Table 4: Responses for the refined Scenario 7 from PQ1 for VQ

Respondent	Afrikaans instruction	English translation
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	<i>Vraag: Formuleer asseblief die stelling wat in die spraakborrel gemaak word. Gebruik asseblief die werkwoord "kry"/"gekry" en die woorde "winter" in jou antwoord.</i>	<i>Question: "Please formulate the statement that is made in the speech bubble. Please use the verb "get/gets/got/gotten" and the word "winter" in your answer".</i>
R 1	*Ek het so koud in die winter gekry.	*I got so cold this winter
R 2	?Dink jy hulle kry koud in die winter?	Do you think they get cold in the winter?
R 3	In die winter word daar koud gekry.	In the winter, it is cold [=impersonal passive]
R 4	'n Mens kry in die winter koud.	One gets cold in the winter.
R 5	*Ek kry altyd baie koud in die winter.	*I always get very cold in the winter.
R 6	In die winter kry 'n mens baie koud.	In the winter, one gets very cold.
R 7	In die winter kry mens koud.	In the winter, one gets cold.
R 8	Mens kry lekker koud in die winter.	One gets very cold in the winter.
R 9	Mense kry koud in die winter.	People get very cold in the winter.
R 10	Jy kry koud in die winter.	You get cold in winter.
R 11	*[Geen idee]	*[no idea]
R 12	Dit lyk of julle hierdie winter koud gekry het	It seems as though you were very cold this winter.
R 13	Waar moet mens hitte kry in die winter?	Where should one get heat in the winter?

While the prototype illustration of this context in PQ1 only resulted in two useful answers, only three answers¹⁴ from this refined illustration in VQ were NOT useful as linguistic descriptions of impersonal contexts¹⁵. From the answers provided, it is clear that this illustration is a successful visual question in a linguistic questionnaire. Furthermore, even though the answers from thirteen respondents do not provide enough information to make any conclusions regarding the possible or preferred impersonalisation strategies that can be employed in this context, six different impersonalisation strategies were used by the thirteen respondents for this question (compare Table 5). We can therefore conclude that this visual question with its accompanying formulated contextualisation, is not biased toward any particular impersonalisation strategy.

Table 5: Different impersonalisation strategies for UNI-INT-VER in VQ

Impersonalisation strategy	Freq
3PL HIP (<i>hulle</i>)	1
Agentless passive	1
'n mens	2
Mens	3
Mense	1
2SG (<i>jy</i>)	2
*Not useful	3
Total	13

Figure 10 presents the refined illustration of Scenario 9 from PQ2 as a visual question in VQ. Due to the high number of concerns raised for the illustration in Figure 8 (PQ1), this student was required to return to the definition phase of the DTM. This required both the *fabula* and *sjuzhet* to change. The *fabula* was adapted to “*Mens moet gesond eet*”/ “*Mens het gesonde kos nodig.*” | ‘*One must eat healthily*’/‘*One needs healthy food*’. In the *sjuzhet*, the characters were replaced by faceless masses to encourage universality in the interpretation and the number of frames was reduced to a single frame to avoid any ambiguity with regards to the focal moment to which the viewer/reader ought to respond.

Figure 10: Refined illustration of Scenario 9 from PQ2 for VQ

<Figure 10>

Table 6 indicates the respondents' answers to this question in VQ.

Table 6: Responses for the refined Scenario 9 from PQ2 for VQ

Respondent	Afrikaans instruction	English translation
	<i>Vraag: Verduidelik in 'n enkele sin wat met hierdie scenario geïllustreer word. Gebruik asseblief die woorde "kos" en "nodig" in jou antwoord.</i>	<i>Please explain in a single sentence what this scenario is illustrating. Please use the words "food" and "need/needs/needed" in your answer.</i>
R 1	Ons het verskillende tipes kos nodig.	We need different types of food.
R 2	Kos is nodig vir funksionering.	Food is needed for functioning
R 3	Die mens het kos vanuit vyf voedselgroepe nodig.	The human needs food from five different food groups.
R 4	Mense het kos nodig om te kan leef.	People need food to survive.
R 5	Ons het al die kos wat op die voedselpiramide is nodig vir 'n gesonde lewe.	We need all the food on the food pyramid for a healthy life.
R 6	'n Mens het kos uit al die voedselgroepe nodig om gesond te wees.	You need food from all the food groups to be healthy.
R 7	Mense het elke dag kos nodig om te oorleef.	People need food every day to survive.
R 8	Mens het verskillende tipes kos nodig.	One needs different types of food.
R 9	Mense dink watter soorte kos hulle nodig het	People think what type of food they need.
R 10	Dit is watse kos mens nodig het.	It is what kind of food one needs.
R 11	Maslow het verkeerd verstaan... al wat mens nodig het, is kos.	Maslow did not understand – all you need, is food.
R 12	'n Mens het daagliks kos nodig om te oorleef	One needs food daily to survive.
R 13	Ons het verskillende tipes kos nodig.	We need different types of food.

All the answers for this question can be regarded as linguistic strategies for describing UNI-INT-NVER-MOD impersonal uses. Again, six different impersonalisation strategies were used by the respondents (see Table 7 below).

Table 7: Different impersonalisation strategies for UNI-INT-NVER-MOD in VQ

Impersonalisation strategy	Freq.
1PL (<i>ons</i>)	3
die mens	1
mense	3
'n mens	3
mens	3
Other	1
Total	13

It is clear that this illustration, with its accompanying instruction, also allows for different impersonalisation strategies and that is not biased towards any particular strategy.

Another promising result from the answers of the respondents for this question is that a new impersonalisation strategy could possibly be identified from the answers for this questions, namely the answer from Respondent 2 – “food is needed for functioning”. This strategy is similar to the impersonalising passive, but in this case the object is given as the subject of a stative sentence, by combining it with a copula verb *is* and a copula predicate (*needed for functioning*).

When looking at the combined answers from VQ, it is clear that the newly designed visual questionnaire will be a useful and appropriate research tool i) to identify different possible impersonalisation strategies employed by Afrikaans speakers, and ii) to determine the preferred impersonalisation strategy for each of the twelve impersonal uses.

Firstly, only 34 answers from a total of 352 answers¹⁶ could not be regarded as descriptions of impersonal contexts. In other words, more than 90% of the answers given by the respondents for this questionnaires, provide information regarding the linguistic strategies of impersonalisation in Afrikaans.

Secondly, more than sixteen different strategies were used by respondents in this questionnaire. Table 8 indicates the frequency of the different impersonalisation strategies that were used by respondents in VQ, as well as an example of each of these strategies from the respondent's answers. It is clear that the visual questionnaire is not biased toward any particular impersonalising strategies, and that the formulated clues regarding the context of the illustration, are not limiting the respondents' preferential use of impersonalising strategies. Note, however that, for the numbers in this table, we have again adopted a rather liberal approach and taken into consideration as many answers as possible. For instance, if an answer could be viewed as an impersonalisation strategy for a different conceptualisation of an illustration than the one originally intended, we counted it. In the same vein, we took into account answers that were potentially ambiguous between a personal and an impersonal reading. Imperatives, for example, may have been used by respondents to convey a directive issued at a specific character in the illustration but they may also have been employed to express a generic rule applicable to everyone and were therefore included in our counts.

Table 8: Different impersonalising strategies used in VQ

Impersonalising strategy	Freq	Afrikaans answers	English translations
agentless passive	74	Daar word aan die pad gewerk .	"the road is being worked on"
iemand	59	Iemand het al die vullis langs die asblik gestrooi.	Someone dumped all the garbage next to the trash can.
3PL (<i>hulle</i>)	34	Hulle het al die koek opgeëet!	They finished all the cake!
mens	32	Mens mag hier rook.	One may smoke here.
'n mens	24	Dink jy 'n mens kan doodgaan as 'n by jou steek?	Do you think that one can die if a you gets stung by a bee?
2SG (<i> jy</i>)	18	Jy moet altyd jou sitplekgordel vasmaak.	You must always fasten your seatbelt.
Mense	17	Wat sal gebeur as mense dié knoppie druk?	What's going to happen if people press this button?
Almal	10	Almal moet hulle tande borsel.	Everyone should brush their teeth.

1SG (<i>ek</i>)	7	Wat sal gebeur as ek die die borrel te groot blaas?	What would happen if I blow this bubble too big?
1PL (<i>ons</i>)	6	Ons het verskillende tipes kos nodig.	We need different types of food.
die mense	5	In China eet die mense graag rys.	In China, the people like to eat rice.
wie	3	Ek wonder wie gisteraand hier gekamp het.	I wonder who camped here last night.
die mens	1	Die mens het kos vanuit vyf voedelsgroepe nodig.	The human needs food from five different food groups.
alle mense	1	Alle mense het water nodig om te lewe.	All humans need water to live.
IMP	1	Maak vas jou sitplekgordel.	Fasten your seatbelt!
other	26		
*not usable	34		
TOTAL	352		

Thirdly, even though only thirteen respondents participated in the VQ, clear observations could already be made regarding the preferred impersonalisation strategies for some of the impersonal uses. For example, only two strategies were used for both illustrations of EXI-COR contexts, namely the *3PL* (fourteen answers, as illustrated by the answers from R3 and R4 in **examples (20) and (21)**), and an agentless passive (nine answers, as illustrated by the answers from R7 and R4). No other strategies were used in these contexts.

(20) Afrikaans (EXI-COR1, R4)

Hulle werk al vir baie lank aan hierdie pad.

theywork already for very long on this road

‘They have already been working on this road for very long.

(21) Afrikaans (EXI-COR2, R3)

Hulle het ‘n nuwe foon uitgebring.

they have a new phone brought out

They launched a new phone.

(22) Afrikaans (EXI-COR1, R7)

Daar word aan die pad gewerk.
there become on the road worked
'Work is being done on the road'

(23) Afrikaans (EXI-COR2, R4¹⁷)

Daar is nou alreeds weer 'n nuwe foon uitgebring.
there is nou already again a new phone brought out
'A new phone is launched again.'

Furthermore, four visual questions depicted inferred contexts, and a combined total of fifty-two responses were presented for these four contexts. Two impersonalising strategies in particular were used by respondents, namely *iemand* 'someone' (used in twenty-eight responses) and the agentless passives (used by eleven respondents). This is illustrated by die examples (24) to (27) below. Even though other strategies could have been used, such as *(die) mense* 'people' (as shown in example (28), used by only four respondents), it was clear that the indefinite pronoun *iemand* 'someone', even for plural contexts, is the preferred impersonalising strategy to describe inferred impersonal contexts. It can be assumed that, should it be completed by a great number of language users, this questionnaire would be able to provide information regarding the preferred impersonalisation strategies for each of the twelve impersonal contexts.

(24) Afrikaans (EXI-INF-NN, R4)

Iemand het doughnuts met sy kar gemaak!
Someone have doughnuts with hiscar made
'Someone made doughnuts with his car here!'

(25) Afrikaans (EXI-INF-PL, R5)

Iemand het hier sokker gespeel.
Someone have here soccer played
'Someone played soccer here.'

(26) Afrikaans (EXI-INF-NN, R3)

Daar is rommel langs die asblik gestrooi.

There is rubbish next to the dustbin strewn

‘Rubbish was thrown next to the rubbish bin.’

(27) Afrikaans (EXI-INF-PL, R7)

Hier moes gisteraand hier gekamp gewees het.

Here must last night here camped was have

‘There must have been camping here yesterday’

(28) Afrikaans (EXI-INF-NN, R1)

Kyk hoe het die mense hulle rommel langs die asblik gestrooi.

Look how have the people their rubbish next the dustbin strewn

‘Just look how the people threw their rubbish next to the rubbish bin.’

Lastly, twenty-six answers were regarded as "other" impersonalisation strategies. An answer was analysed as "other" when the linguists were of the opinion that the respondent's answer did express (some kind of) impersonalisation but did not fit any of the established or clearly identifiable strategies. We have already pointed out two such cases. The first one is the use of the imperative for UNI-INT-NVER-MOD uses: imperatives like “fasten your seatbelt!” and “brush your teeth!” may be interpreted generically, that is as ‘applying to everyone’. The second case is the use of structures where a stative predication is made, with a copula, about a more patient-like subject, as in “food is necessary for all humans” and “smoking is permitted here”. Another possible strategy is employing a term for 'people' that carries subjective overtones, such as 'assholes' or 'morons'. The word *morsjorse* ‘litterbugs’ in (29), for instance, does not refer to a known set of individuals. Rather, it establishes the existence of an unidentified group of people while simultaneously expressing the speaker's negative attitude toward them.

(29) Afrikaans (EXI-INF-NN,
R11)

Kyk net hoe het die morsjorse rommel langs die asblik gestrooi!

Look just how have the litterbugs rubbish next the dustbin strewn
'Just look how much mess the litterbugs made next to the rubbish bin!'

This category for "other strategies" needs further interpretation, but is a strong indication for us that the questionnaire will also be useful in identifying possible new strategies of impersonalisation.

5 Conclusion

The aim of this paper was to develop an alternative to existing methods of studying impersonalisation strategies through interdisciplinary collaboration. We also sought to test its usefulness for identifying not only the range of *possible* linguistic strategies of impersonalisation but also the *preferred* strategies for specific impersonal uses.

In the introduction to the article, we showed that there are certain issues with the existing methods for investigating impersonalisation. For instance, none provides linguists with the opportunity to identify possibly new or thus far undiscussed forms of impersonalisation. Existing methods such as corpus linguistics also face the problem that many strategies ambiguous between impersonal and non-impersonal interpretation are mainly used non-impersonally, as well as the problem that some impersonal contexts are simply very rare. They are therefore not ideal for examining all impersonal strategies or for studying the preferred forms of impersonalisation in every different impersonal context.

We therefore wanted to develop a research method that could be used to investigate all possible (known and unknown) impersonalisation strategies in all impersonal contexts. This method had to be designed in such a way that no answers are excluded beforehand and it does not have any built-in "triggers" that encourage or provoke a specific answer from respondents, which the existing language-based questionnaires suffered from. We therefore decided to explore the potential of a "visual questionnaire", avoiding any direct impact of the wording of questions or test items on answers and leaving those essentially entirely open to respondents.

For this project, we needed intricate visualisations of different impersonal contexts that could serve as “visual questions” for our linguistics questionnaire. However, linguistics has no tradition of developing such “languageless and wordless” questions for as complex a semantic domain as impersonalisation. It was thus essential to work with visual design experts. The successful outcome of this partnership would not have been possible without the collaboration and spirit of “failing effectively” that the design thinking approach adopted by the designers promotes. This methodology’s emphasis on generating high volumes of ideas, subjected to rapid prototype testing and improvement in iterative cycles, enabled design students, design lecturer and linguist to quickly identify issues with either the linguistic or visualisation components of this project and use them to improve the illustrations’ functionality.

The visual questionnaire shows considerable promise as a tool for the investigation of forms of impersonalisation, in particular for identifying possible but still unknown strategies and for getting an idea of the preferred strategies for each impersonal context.

For example, in the literature on impersonalisation, the focus is mainly on pronominal strategies of impersonalisation, though some other strategies nouns are mentioned (e.g. noun phrases like *mense* ‘people’, agentless passives). In our responses, however, we find at least sixteen different forms of impersonalisation, among which some have not yet been explicitly discussed in the research. The use of generic imperatives for universal-internal contexts is a case in point (compare Siewierska 2011).

Since the visual questions did not elicit specific linguistic answers (see again note²³), we were also able to get an idea of the different strategies preferred by speakers in the respective impersonal contexts. The fact that there is such a large discrepancy between our answers and, for example, those of Van Olmen and Breed’s (2018a; 2018b) questionnaires serves as an indication that our visual questionnaire gives us a better idea of the actual language use of speakers. For example, in Van Olmen and Breed’s (2018a) results, more than 80% of respondents chose the impersonal pronoun (*n*) *mens* in UNI-INT-NVER-MOD contexts (e.g. *mens mag hier rook* ‘one may/is allowed to smoke here’). In our visual questionnaire findings, however, only about 20% (3 respondents) opted for this form of impersonalisation. The most popular strategy (5 respondents) for the UNI-INT-NEVER-MOD context was actually the agentless passive (e.g. *rook word hier toegelaat* ‘smoking is allowed here’) and

four other respondents chose the thus far little discussed strategy of using a stative predicate (e.g. *rook is hier toelaatbaar* ‘smoking is permissible here’).

This collaborative, interdisciplinary approach seems to be a workable way to develop an alternative research method, specifically a visual questionnaire, to investigate rare or unknown constructions or expressions in any language. The unbiased formulation of the visual questions provides an opportunity for linguists to undertake a variety of topics in linguistic investigations.

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² As illustrated by the differences between (1) and (2), as well as the differences between (3) and (4), it is clear that for both the universal and existential impersonal uses, a number of subtypes can be

distinguished, based on particular criteria. In total, twelve different impersonal uses have been identified, namely four universal impersonal uses and eight existential impersonal uses. These twelve uses, as well as their determining criteria, will be discussed in more detail in the next section.

³ A human impersonal pronoun (or HIP) can be defined as the pronominal expression of ‘a variable ranging over sets of human participants without establishing a referential link to any entity from the universe of discourse’ (Gast and van der Auwera 2013:124). Typical examples of HIPs are pronouns derived from the lexical words ‘human’ and ‘man’, such as Dutch *men*, German *man* and Afrikaans (*n*) *mens*. Other sources for HIPs are ‘one’ (e.g. English *one*), third person plural pronouns and second person singular pronouns (cf. Heine and Song, 2011: 595)

⁴ It might be relevant to mention here that some of the respondents who completed the hard copy Afrikaans completion task (see Van Olmen & Breed 2018a) felt so strongly about using the impersonalising passive to describe certain impersonal contexts - that they amended the formulation of some of the questions, so that a passive construction could be filled into the open slot. Clearly, the passive was the preferred impersonalisation strategy for these respondents for these particular impersonal contexts, even though the questions’ formulations aimed to provoke a HIP as an answer.

⁵ The twelve uses that are distinguished by Van Olmen and Breed (2018b), are based on two different semantic maps of impersonal pronouns, namely the map of Siewierska and Papastathi (2011) and the map of Gast and van der Auwera (2013). Since the twelve uses are extensively described in Van Olmen and Breed (2018a and 2019b), we will not elaborate on this aspect in more detail.

⁶ This art genre is most commonly associated with comic strips, comic books and graphic novels and therefore most literature offers a variety of narrower descriptions than what is employed in this project (Meskin 2007). For example, Eisner (1985:5), an influential American cartoonist and seminal theorist on the topic, narrows the function of sequential art to the narration of a story or dramatisation of an idea while other definitions, such as McCloud’s (1933:20), excludes film, animation and single-frame comics from this category.

⁷ Wordless narrative research is an arts-based research method that ‘employs image -dependent storytelling to better understand different social phenomena’ (Horwat 2018:182).

⁸ The design thinking approach was conceptualised by Hasso Plattner and David Kelley in 2004. Hasso Plattner is a former IBM employee and the co-founder of the German software company SAP SE. David Kelley is the founder of IDEO and of the Hasso Plattner Institute of Design.

⁹ In a nutshell, *fabula* refers to the storyline or plot and *sjuzhet* to the form in which the *fabula* is visually communicated.

¹⁰ This project is ongoing research. Since the aim of this particular paper was only to develop and test an alternative research method into impersonalisation strategies, the results from this study will

not be used to make any linguistic claims. The finalised questionnaire, however, will be distributed to a large number of respondents (more than 400 participants) in order to compile enough data to make linguistic observations regarding the impersonalisation strategies in Afrikaans.

¹¹ Link to an anonymised copy of the online PQ1: <https://forms.gle/khWfLDFn8wFifxpA8>

¹² Link to an anonymised copy of the online PQ2: <https://forms.gle/SifbgtnjmkuUsadV6>

¹³ Link to an anonymised copy of the online VQ: <https://forms.gle/a6xRUDc8jgk6RPnB9>

¹⁴ In both cases, the respondents presented the answers in the first person, and it seems as though these two respondent interpreted the narrative as a memory from the speaker (the character from the first frame). One respondent didn't answer the question.

¹⁵ One of the respondents formulated an answer with *hulle* 'they', i.e. *Dink jy hulle kry koud in die winter? 'do you think that they get cold in winter?'* As we know from previous research (Van Olmen and Breed 2018a), *hulle* cannot be used as a HIP in universal-internal contexts in Afrikaans, this answer cannot be considered an impersonalisation strategy for UNI-INT-VER. However, the respondent may have interpreted the context as UNI-EXT, i.e. as 'do you think that [all people there, excluding myself] get cold in winter?'. It is obviously impossible for know what was actually intended but, for the present purposes, we deliberately adopted a very liberal approach and analysed it as an impersonalisation strategy, not for UNI-INT-VER but for UNI-EXT.

¹⁶ The responses to one of the visual questions – an illustration attempting to visualise a EXI-SPE-PL context – was removed from VQ, since none of the answers provided by the 13 respondents for this particular question, was useable. It was thus also clear that the illustration could not be included in the final questionnaire. The thirteen answers from this questions were not included in the 34 unusable answers indicated above.

¹⁷ Interestingly, the same respondent (R4) used different impersonalisation strategies for the two EXI-COR contexts. For EXI-COR1, she employed 3PL and, for EXI-COR2, an agentless passive. We take this as further confirmation that the visual questionnaire is not biased toward any specific impersonalisation strategy.