

Examining the relevance of the Pearson PTE Academic test tasks for professional nursing registration – a stakeholder perceptions study

2019

Ute Knoch and Andrew Pitman

Examining the relevance of the Pearson PTE Academic test tasks for professional nursing registration – a stakeholder perceptions study

Ute Knoch and Andrew Pitman

Language Testing Research Centre, School of Languages and Linguistics, University of Melbourne, Australia

Background and research goal

Overseas-trained nurses (also referred to as internationally qualified nurses or IQNs) play a major part in international workforce migration patterns and are frequently recruited to fill major workforce shortages in workplaces in English-speaking countries. To gain registration and subsequent employment, IQNs are required to fulfil a series of registration requirements and proving their English language proficiency is commonly one of the first hurdles in this process. In a number of English-speaking countries, one option for IQNs to fulfil the English language requirement is to take a recognized English language test and achieve a level specified by the relevant registration board. In Australia, for example, nurses can take the Occupational English Test, the IELTS, the TOEFL test or the Pearson PTE Academic.

Many of the recognized language tests were not expressly developed for this purpose, however. The Pearson PTE (just like the IELTS and the TOEFL test) were originally designed to assess the language proficiency of students wishing to enter English-medium universities. As Fulcher (2013) and others have pointed out, it is important to conduct validation studies to collect backing to support each new test use context (Chapelle, 2008, 2012; Kane, 2006, 2013). Validating test use to make predictions about language proficiency in workplace contexts can rely on a number of different types of backing. The aim of this study is to involve IQNs in this process and with their help, to establish the relevance of Pearson PTE test tasks to the nursing work domain. The study aimed to interview 30 IQNs who have previously taken the Pearson PTE to fulfil professional nursing registration requirements and are now working in Australian workplaces. The nurses will be asked of their perceptions of the usefulness and relevance of the various PTE Academic task types to their nursing contexts. The study has important implications for our understanding of the relevance of English language test tasks to professional communication as well as the use of domain expert informants in this process.

Theoretical background

The challenges for IQNs in achieving, language and communication skills requirements for registration and subsequent workforce participation are well documented in the literature (e.g., Chun Tie et al., 2017; Hawthorne, 2001; Kawi & Xu, 2009; Konno, 2006; Li et al., 2014; Staples, 2015; Xu, 2008; Xu et al., 2010) and anecdotal evidence suggest that many nurses who have successfully achieved this requirement may still struggle when in the workforce. One reason for this may be that the English language tests used in the nursing registration

process are not capturing the skills that are needed in the workforce. Other reasons may be that the cut-scores currently in place are inappropriate.

Language tests developed for workplace purposes are usually designed based on a needs analysis (Brown, 2016; Cowling, 2007; Flowerdew, 2012; Greenberg, 2012; Knoch & Macqueen, 2020; Long, 2005; Serafini et al., 2015) which has as its main focus a careful examination of the tasks subject matter experts engage in in their day-to-day working life. These tasks are then surveyed in detail to establish whether they can be used as the basis of tasks in the language test or if adaptations may make them appropriate to the testing domain. Tests that are repurposed from other use domains (such as academic language tests used for nursing registration) are therefore sometimes considered to be either construct irrelevant or as under-representing the domain in question. It is important, however, to examine whether this assumption is true. A study focussing on the relevance of the IELTS Academic Writing sub-test to the domains of engineering and accounting (Knoch et al., 2016) has shown that tasks, aspects of tasks or response processes may be relevant to the new domain, even though the test was not designed with this domain in mind. In the case of the use of the PTE Academic for nursing registration, task relevance can only be established by surveying domain insiders who are also internationally-qualified nurses, and asking them to compare their knowledge of having taken (and presumably prepared for) the test and worked in the domain provides them with unique insights into this question.

Nursing communication

Nursing communication has been well studied. The picture that emerges points to complex language requirements, which differ according to who nurses communicate with (e.g., doctors, other nurses, patient and family members and other workplace staff). Depending on who they communicate with, nurses need to take on different communicative roles, for example, as advisor, mediator, patient advocate, counsellor, expert or translator (see, e.g., Sedgwick & Garner, 2017).

Intra- and inter-professional communication in most medical settings also presents further challenges. It can be both synchronous (e.g., in meetings, ward rounds) or asynchronous (e.g., on white boards, written progress notes and medication orders) (Foronda et al., 2016) and is often marked by frequent interruptions, high communication load, noise, and communication along multiple channels (Curtis & Tzannes, 2011; Sedgwick & Garner, 2017). Nurses need to be well-skilled in working collaboratively with other professions, which is particularly important at handover times (Drach-Zahavy & Hadid, 2015). Communication breakdowns in intra- and inter-professional communication can lead to a variety of adverse effects, such as lower patient outcomes, adverse delays, transfer delays and increased lengths of stays for patients (Curtis & Tzannes, 2011; Drach-Zahavy & Hadid, 2015).

Communication with patients presents other challenges to nurses. A key characteristic of nursing communication with patients in western health care settings is patient-centred care, which is marked by features such as attentive listening, summarizing and repeating what has been said, use of silence and pausing, use of non-verbal communication, and

development of a shared agenda between patients. Nurses are required to express empathy, develop rapport and trust with their patients, reassure their patients and practise reflective listening (e.g., Norgaard et al., 2012; Staples, 2015).

Communication challenges experienced by overseas-trained nurses

A further body of literature has examined the communication-related challenges overseas-trained nurses face when entering English-speaking workplaces in Western health care systems. Examining these challenges should be a key concern for language testers interested in developing tests for the nursing domain, or those retrospectively validating tests developed for other domains but repurposed for use in the nursing registration context. The literature points to particular challenges in spoken communication, both in intra- and inter-professional settings. IQNs have been shown to struggle with understanding the accent and pronunciation of patients and colleagues as well as being understood by these two groups (Chege & Garon, 2010; Cummings, 1990; Kawi & Xu, 2009; Konno, 2006). A further issue with linguistic competence relates to problems understanding and providing non-verbal cues (Chege & Garon, 2010; Kawi & Xu, 2009). Particular problems in this area can be experienced with communication over the phone, a common channel in hospitals and other medical settings, and also relates to the increasing focus on telehealth and use of technology in services offered by nurses and doctors. Absence of body language and facial expression has been shown to be challenging for IQNs.

Internationally-qualified nurses have also been shown to struggle with socio-cultural communication (e.g., understanding slang and humour), although this is an area that is difficult to test by international language tests due to the local and contextual nature of this aspect of communication. Other problems relate to understanding and producing specific medical language and familiarity with the use of abbreviations and acronyms in their new work context (Chege & Garon, 2010; Neiterman & Bourgeault, 2013; O'Neill, 2011).

Validation of language assessment for professional purposes

Knoch and Macqueen (2020) set out a validation framework that can be used or adapted for use when investigating the validity of language assessments used for professional purposes. Both the domain description inference and the extrapolation inference from this framework are relevant to this study. Backing for the domain description inference is usually collected prior to the design of an assessment, while backing for the extrapolation inference is collected post-hoc, once an assessment is in use. In the case of the use of the PTE Academic in the context of nursing registration, the warrants and assumptions underlying the domain description inference were not scrutinized prior to development of the assessment, as this use only occurred after the assessment was already operational. Assumptions from both the domain description and extrapolation inferences presented in Knoch and Macqueen (2020) are relevant to this study. Table 1 below, lists the warrants and assumptions that are relevant to this study.

Inference	Assumptions
Domain description	1 Assessment tasks mirror those in the TLU domain

	2 Assessment tasks chosen sufficiently represent the TLU domain
	3 The assessment tasks elicit and are sufficiently representative of the types of skills, knowledge and processes needed in the TLU domain
	4 Test administration conditions mirror conditions of language use in the TLU domain
Extrapolation	5 Test-taker's interaction with the test tasks is similar to language performance in the TLU domain
	6 The scoring mechanism reflects the evaluation criteria used in the TLU domain

Table 1: Specific inferences and assumptions addressed in this study

Assumption 3 and 5 overlap, in that they both focus on the processes required to fulfil a task.

Methodology

The study drew on the expertise of internationally-qualified nurses who have previously taken the PTE Academic and are now working in nursing workplaces in Australia. The participants were interviewed, and were asked to draw on their experience of taking (and preparing for) the PTE Academic and discuss their insight into the communication tasks required in their workplaces. The study aims to examine the relevance of the PTE Academic to nursing workplaces in terms of the tasks as well as the perceived response processes reported by candidates. The participants were also asked whether they felt that the PTE is a good predictor of their language proficiency for the workplace.

The study examined the following overall research question:

To what extent are the test tasks of the Pearson PTE Academic perceived to be relevant to the communication tasks of the nursing domain?

Participants

Thirty past PTE test takers were recruited to take part in the study. All participants were originally from non-English speaking countries, and the majority also undertook their nursing degree in their country of origin. A small minority had studied nursing in Australia. All had taken the PTE Academic to satisfy the language requirement of the nursing registration process, with the last test sitting being within the last 8 months. Seventeen of the participants were working as registered nurses (RN) at the time of the interviews, two as enrolled nurses (EN), three as assistant nurses (AN) and eight as personal care assistants (PCA). Twenty-four participants were female and six were male, reflecting the gender imbalance in the nursing profession.

Instruments

The study was interview-based, with the main instrument being interview questions which were developed based on the literature, a careful review of the Pearson PTE test tasks and

a pilot study using two third-year nursing degree students with placement experience. During the interviews, participants were asked to demonstrate their understanding of the requirements of each PTE task, discuss task-specific preparation, and comment on task- as well as skill-section relevance to their workplace. Participants were also asked to discuss key communicative competencies that are not captured by the PTE tasks. The interview questions can be found in Appendix A.

Procedures – Data collection

Using contact information provided by Pearson, past candidates who indicated that they had taken the Pearson test for nursing purposes were contacted and invited to take part in an interview. Interested past test takers were emailed with an explanation of the research project and a request to schedule an interview. Upon the scheduling of an interview, each participant was emailed a PDF containing examples of the PTE tasks which they could refer to during the interview. Scheduled interviews took place over the phone, were semi-structured, lasted approximately 45 minutes each and were audio-recorded with participants' permission. All participants were provided with a \$50 gift voucher.

Procedures – data analysis

The interviews were transcribed by a research assistant and subsequently checked by a researcher. The transcripts were thematically analysed by two coders using NVivo software in an iterative process based on the procedures set out in Miles, Huberman, and Saldana (2014). We started by identifying main themes in the interview questions. These themes formed the basis of our coding, but were expanded on when we carefully read and re-read the data. The final set of themes and sub-themes were trialled by two coders, and once they felt that the interviews were sufficiently captured by these themes, one coder coded all interviews. The following themes (or head-codes) and sub-themes (sub-codes) were identified. Please note that where tasks are scored across skills (e.g., read-aloud which is scored to both speaking and reading), we assigned these to one skill only when asking participants about particular skills.

- Nurse's background (including previous and current roles, last Pearson PTE test sitting)
- Workplace communication
 - Who nurses communicate with
 - Workplace communication
 - Speaking
 - Listening
 - Reading
 - Writing
 - Communicative challenges in the workplace
 - Challenges communicating with colleagues
 - Challenges communicating with patients
 - Challenges communicating with families of patients

- Other challenges
- PTE Speaking/Writing/Reading/Listening section
 - For each of the speaking /writing/reading/listening tasks:
 - Task comprehension
 - Task preparation
 - Task relevance to the workplace
 - Additional skills required for the workplace
 - Relevance of skills section to workplace
 - Workplace skills not covered by PTE test
- Overall relevance and usefulness of PTE to work
- Suggestions for increasing relevance of PTE for nurses

A second coder coded three interviews (10%) of the data. Intercoder reliability was calculated and resulted in an agreement of .93.

Results

In what follows, we present the results to the research questions. Where possible, we have included illustrative quotes from the data. We indicate each participant by their ID. The twenty tasks will be described in the groupings shown in Table 2 below.

PTE Academic task types	
Speaking	Read aloud
	Repeat sentence
	Describe image
	Re-tell lecture
	Answer short question
Writing	Summarize written text
	Write essay
Reading	Multiple choice, choose single answer
	Multiple choice, choose multiple answers
	Re-order paragraphs
	Reading: Fill in the blanks
	Reading & writing: Fill in the blanks
Listening	Summarize spoken text
	Multiple choice, choose multiple answers
	Fill in the blanks
	Highlight correct summary
	Multiple choice, choose single answer
	Select missing word
	Highlight incorrect words
	Write from dictation

Table 2: PTE task types

Speaking

Table 3 below sets out the participants' answers about the relevance of the speaking tasks to the nursing workplace. The table shows that the **re-tell lecture** and **answer short question** tasks were seen as the most relevant. Although both the **read aloud** and **repeat sentence** tasks were deemed relevant by just over half of the interviewees, the percentage of participants that considered these as irrelevant was quite different. The **read aloud** task split the opinions of the interviewees much more than the **repeat sentence** task.

Speaking tasks	Relevant		Somewhat Relevant		Irrelevant	
	N	%	N	%	N	%
Read aloud	16	53	7	23	7	23
Repeat sentence	16	53	13	43	1	3
Describe image	10	33	12	40	8	27
Retell lecture	21	75	5	18	2	7
Answer short question	19	68	4	14	5	18

Table 3: relevance of PTE speaking tasks

In the following section, we report the more qualitative findings about each task, which again show that the participants focussed on very different aspects of the same task when determining workplace relevance.

When discussing the **read aloud** task, a number of participants noted that this was something they did regularly, both during handover with other nurses or doctors, but also with patients. Participant 13, for example, described that 'when you are giving like handover to the doctor for what you have written on your notes, if you are going to tell what is going to happen with the patient, you have to read aloud, you have to make clear what you are telling'(Participant 13). Similarly, in an aged care context, Participant 14 noted that

'we have got a handover sheet which is the diagnosis of that resident and the care needs, the care plans, are all in it. So sometimes during the handover you just need to read it out, read it out loud to the staff from next shift if they are new. When you are reading handover notes, we only have ten or fifteen minutes for the handover and we normally probably got 30 residents in a row so if you can't like read very slowly or not fluent or sometimes your pronunciation is weird, then people won't be able to understand you and that will cause a big drama, miscommunication cause errors in nursing' (Participant 14).

Several other participants (Participants 6, 15, 16, 28) noted that the content in the **read aloud** tasks was generally irrelevant to the nursing domain, but that the process of reading out aloud was relevant. Several noted that speaking clearly was really important in the nursing workplace. For example, Participant 5 said 'when you are in a situation, a workplace situation where people's lives are at stake, it is that speaking clearly is of paramount importance'.

Another context that was considered relevant to the Reading aloud task was speaking over the phone, where nurses described that they often needed to relay information to doctors or relatives by reading out results, for example. Other nurses, however, noted that this task

was irrelevant to the nursing workplace, as reading out loud was something they never or very rarely needed to do.

The **repeat sentence** task also resulted in interesting responses from the participants. While almost all participants thought that this was relevant or somewhat relevant, the type of repeat back that they described in their workplaces seemed to range from an immediate repeat back of exactly what was said, to a repeat back in paragraphed format (or shortened format), to a highly delayed repeat back (e.g., of something they had heard at the beginning of their shift to the handover at the end of their shift).

Repeat back was seen as an important safety mechanism, for example, at the time of phone orders. Participant 1 noted that, 'we double check always and also as a nurse I get phone order from the doctor so it should be two nurses there so we repeat that order so that is basically exactly the same, repeat the sentence' (Participant 1). Repeating back was also relevant to communication with residents in aged care. Participant 10 described the need to repeat what residents say as 'sometimes when you talk to the residents, because they in old age, they probably can't communicate properly and you really have to repeat. Like you can't understand them properly. You really have to repeat what they are talking about to make sure you heard the correct thing' (Participant 10). Repeating back was also seen as a mechanism to show empathy.

Other nurses noted that they rarely repeated the exact wording back, but will either summarize what has been said (Participants 2, 4, 12, 14, 20) or not use full sentences (Participant 13).

The timing of the repeat was also a variable that was discussed by participants. A delayed repeat back seemed to change the nature of the task, as can be seen in the quote by Participant 16 below:

Someone gave you a handover and you are the one passed the information down. And I need to take notes to remember the whole sentence or key information so when people doing handover to you, or the doctor is saying anything, even patients, you need to take notes and you may be the one who need to repeat it to the next shift nurse so whoever take the handover you need to repeat the sentence. (Participant 16).

The **describe image** task was seen as irrelevant to the nursing context by nearly a third of the participants (Participants 1, 8, 9, 11, 15, 23, 27, 28). Others mentioned that they had to regularly describe wounds, bruises, ulcers, urine, charts, scans, ECGs and so on. For example, Participant 10, a personal care assistant in aged care, described that 'we do the daily activities for the personal hygiene, so we will be looking at their wounds or bruises and their skins and all that. So something when we found something you have to describe to the RN or to the nurse in charge what did you found and how that looks like' (Participant 10). Participant 6 described the need to describe urine:

We do like check urine if they are infected and that is how we describe if there is a significant finding in a certain test or in a pathology results. Like if the patient has a

certain infection, low blood haemoglobin and things like that, that is when we can describe them. (Participant 6)

Others also mentioned that they, at times, needed to describe objects or charts to either dementia or sight-impaired patients, as can be seen in the quote below:

I do have to explain some of the chart and things like that to the patients, what has been written because some people have an impairment with the sight and like that so I might help them get the information. (Participant 22).

A number of interviewees, as was the case with other tasks, noted that the content of the tasks was not relevant to the medical domain, and that this made the task less relevant to nursing.

The **re-tell lecture** task, although according to Table 3 above was seen as the most relevant of the nursing task, was also a task that resulted in the largest diversity of answers. In fact, a number of participants based their evaluation of the relevance only on the listening aspect of this task, rather than the process of listening to speak. This quote by Participant 11 is typical of participant responses:

If doctor is saying or someone else is saying or sharing their knowledge [...] and they are talking four to five minutes to ten minutes you just stand there and listen to them and then you try to understand what they are saying the whole message of their lecture of ten to fifteen minutes, then I would say yes [the task is relevant]. (Participant 11)

Others noted that the process of listening to another health professional (e.g., a doctor) and then later telling the information to someone else, was a common task. For example, Participant 16 noted that, 'it will be like a doctor can give you a bit story, like whoever gave you handover or even the patient can gave you a big, big story they will tell you a lot of information. You need to summarize them, take the key information, what is irrelevant, what is relevant, and retell to the next one'.

Information is also relayed to patients or families of patients. Participant 29, however, noted that the PTE task was inauthentic in that it did not provide nurses the opportunity to ask for clarification which was possible in the workplace:

We are actually a big part of the multidisciplinary team in the hospital and sometimes the communication will just be through verbal so this would I think be related to re-tell lecture. Now the only different thing with re-tell lecture in that scenario is that in the hospital or in our workplace we are given the opportunity to clarify. (Participant 29)

Two participants noted that this task was also similar to a situation where they attended in-service training or professional conferences, and then needed to relay the information they had heard to colleagues afterwards.

The final speaking task, **answer short question**, was described as relevant to the nursing domain by two thirds of participants, although a number (Participants 4, 11, 12, 13, 14) noted that the content of the PTE tasks was not relevant to their work. Answering short

questions was described as relevant when speaking with doctors, nurses, other colleagues, residents, patients, and relatives of patients. Participant 16, for example noted that *'this is quite helpful for communication skill when we work because answer short question is really, really huge amount of the communication when we speak out. For example, "Did you have breakfast? Did you have medication? Did your family come?" The patient, resident can say yes or no and I can also say yes or no. "Did you see the paper? Which paper?" It is like that all the times we speak short questions, you know?' (Participant 16).*

When training nursing students, Participant 5 described that the use of short answers was best in front of a patient, to avoid upsetting them, as illustrated by the quote below:

I suppose you do it all the time. You are not conscious of doing it, if I think of an example, I think when you are teaching students or when you have students you know, if you are briefly busy in front of the patient, you just give brief questions and answers sort of a thing and then you afterwards you would go back and give a bit more information. But sometimes is it more appropriate just to give short answer questions because some information would be upsetting to the patient or they don't understand it and then they don't like it when you talk about them.' (Participant 5).

The participants were also asked whether they felt the speaking section of the PTE Academic fully captures the speaking demands of their workplace. A number of nurses mentioned that the PTE lacked a face-to-face component to their speaking test, which makes up a significant part of workplace communication. Participant 11, for example, mentioned that, 'PTE doesn't have anything like that where like two people are sitting and having a conversation. At that time also they can assess us, so that could be useful when we are doing PTE like imagine we are talking to a patient and just talk to them freely and that is how they can assess us' (Participant 11). Similarly, Participant 29 noted 'the only difference that the actual PTE doesn't have compared to the real workplace is the ability for us to you know engage in a meaningful conversation within the exam itself' (Participant 29). Two others (Participants 11 and 20) mentioned that the content of the tasks was irrelevant to the nursing workplace. Participant 11 thought that the speaking required in the PTE was very different to that at work: 'I think like in the clinical world it is completely different and we have various ways of communication. We have so much technology, so much resources and support, it is very different. When it comes to PTE, it is very [...] general, like all professions, everyone...' (Participant 11).

Participant 2 described her workplace communication as much more complex than what is required by the PTE:

'In the PTE, I have to do one task at a time. But whilst it is my workplace, I will have to demonstrate like each and everything at the same time and I think that definitely involves more skills than the PTE, yeah. The contents are similar, the only thing is that I will have to like do every task at the same time. Basically, speaking, listening to a conversation and like giving any suggestions, relevant suggestions and concluding it, everything yeah. The workplace basically involves everything' (Participant 2).

Participant 4 mentioned that all the tasks are important, and that preparing for the PTE had provided them with self-confidence that they could use in the workplace.

Writing

Table 4 below summarizes the participants' evaluation of the relevance of the two PTE writing tasks, **summarize written text**, and **write essay**. As can be seen, neither were seen as highly relevant to the nursing profession with over half of the participants judging each as irrelevant to the writing they do at work.

Writing tasks	Relevant		Somewhat Relevant		Irrelevant	
	N	%	N	%	N	%
Summarize written text	7	25	5	18	16	57
Write essay	4	14	8	28	17	59

Table 4: relevance of writing tasks to nursing domain

The qualitative responses to the interview questions illustrate the diversity of opinions expressed about these two tasks.

The majority of participants noted that the **summarize written text** was not relevant to writing in the nursing domain. Six participants (Participants 1, 9, 10, 16, 26, 30) noted that almost all writing was done without prior reading. For example, the participants described writing progress notes from what they had observed or done during the day ('we more describe the situation rather than we copy someone's notes', Participant 10). Instead, the interviewees referred to a number of situations that were different to what this reading-to-write task required. For example, Participant 12 described that she often reads and then summarizes the information in her brain (without following this by writing); four participants (Participants 9, 11, 15, 29) noted that they often read, and then summarize that information in speech, for example for patients), or that they may listen to write (Participants 13, 20). If reading to write at work, the writing is never as brief as in the PTE task (Participants 1, 23). This is illustrated in the following quote by Participant 23:

No, actually, we have to be pretty straight-forward and in detail. We can't summarize the written notes there at workplace in nursing [...] more detail, that is right. (Participant 23)

Those participants that found the task relevant to some extent, also noted some differences. Two participants mentioned that in their workplaces they were not required to write with correct grammar, and one interviewee noted that there was no concern about copying works in workplace writing.

Three participants also noted that the task was relevant to assignments they had to write at university, and during professional development (Participants 3, 5, 23).

Participant 6 found the task relevant to writing a discharge summary, as shown by the quote below:

With regard to this one [summarize written text], there is a result like CT scan, MRI. The discharge summary, so we just get the salient points of those things and that is what we

write in our progress notes and as I have mentioned before that I did some clinical nursing tasks before and whenever I admit residents, so I complete the person's care plans which is a very long one. So I get the salient points, what is important for the care workers to understand about this residents and that is what I put in writing and send to everyone in the facility so they will understand who this resident is, how he or she wants to be take care of so that is where it is relevant. (Participant 6).

The **write essay** task was also considered not relevant by the majority of the participants. The most common reason that was given for this was that the kind of writing that nurses do (e.g., progress notes, incident reports) do not require argumentation (Participants 1, 8, 16, 19, 21, 24). Two interviewees noted that nursing writing is less formal, and does not require grammatical accuracy (Participants 14, 20) and that PTE writing is more difficult. Participant 6 also mentioned that health writing requires a specific way of organising. Interestingly, the structure of essay responses to the **write essay** task was at the same time also deemed somewhat useful for and similar to the structure of care plans, incident reports and progress notes (Participants 17, 19, 32).

Two participants mentioned that writing in general is important for nursing, but that this task is not (Participants 15, 22), and another interviewee noted that this type of writing was needed for academia, but not the workplace (Participant 29).

Participants were also asked how well the writing tasks as a whole cover the writing skills at work. Participant 2, as can be seen in the lengthy quote below, described nursing writing as quite different to the writing in the PTE, as it is marked by its specific terminology, brevity and clarity:

Our writings are a bit like different that the PTE ones because so we will have to use certain key words and certain terminologies and it is mostly kept as short and precise as we can but with the PTE ones, we need to sort of like elaborate it [...] but with our writings, we keep it as short and precise as we can so that everyone gets like the information at a glance. Actually, the main theme of doing that is like people don't need to waste more time reading a whole bunch of text but actually they can just look at this and have an idea of what the patient is, what disease the patient is having and under what medications they are and like what needs to be done, what the care plan is (Participant 2).

Others again mentioned that writing in the workplace did not require full sentences, is more informal, and includes many abbreviations.

Reading

Participants disagreed on the relevance of the tasks we summarize under the reading section, as illustrated in Table 5 below. The **re-order paragraphs** task was seen as the least relevant to reading in the nursing workplace. The other two task types were seen as relevant by just under a third of participants.

Reading tasks	Relevant		Somewhat Relevant		Irrelevant	
	N	%	N	%	N	%
Multiple choice (single & multiple answer)	9 ¹	30	8	27	13	43
Re-order paragraphs	3	12	6	26	17	65
Fill in the blanks (reading; reading and writing)	6	24	7	28	12	48

Table 5: Relevance of reading tasks to nursing domain

What these numbers mask, however, are the various reasons that the participants mentioned to support their choices. In the following sections, we illustrate some of the themes that emerged about these three broad groups of task types.

Several themes emerged in the interviews. A number of participants commented on the relevance of the test method (e.g., multiple choice items, paragraph ordering, fill in the blanks) to the nursing domain. Participant 4, for example, comments on the relevance of the **multiple choice** task below:

So in multiple choice choose single answer there is a question asked and there are options, four or five options given and ah, the question is about two to three paragraphs long and we have to ah, choose the one particular answer. I think sometimes all of the answers were like same, similar and sometimes the answer is kind of twisted but it makes you confused [...]. So it was kind of confused, confusion for me to decide what to say. Frankly speaking these two questions I really didn't like them.

Other participants, while also acknowledging that multiple choice questions are not necessarily relevant to their daily reading at work, either felt that the use of this task type is inevitable ('not really [relevant], but is just the task that every language test will have', Participant 12) or mentioned workplace tasks that had some resemblance to making selections on a multiple choice task, as can be seen in the quote below:

What you do in work, for instance [...], a resident might have problem with swallowing and then maybe there are different types of things that can cause choking or that can be not good for the what do you call it, the client to swallow properly. So it is then the duty of maybe the nurses to be able to identify the correct thing that causes this choking or the choking. So here there are a list of things that you have to select from. So if you select the wrong thing you are causing death. If you select something good you are helping to upgrade the client's care plan that will save life and make life easier for the resident. So I

¹ Where the N-size within a row does not add up to 30, this means that not all responses by the participants could be clearly coded into one of the three categories. We therefore excluded those responses from the table

think it is very good, it is very important to be able to know what to select from number of possible answers. (Participant 19).

Having to answer multiple choice items, while not necessarily relevant to the day-to-day work of a nurse, was mentioned as being particularly relevant to the frequent professional development/learning participants are required to do, for example to renew their registration, as this is often comprised of reading materials and also assessments. Participant 22, for example, mentioned that *'you have a lot of reading to do, like sometimes I get training, work training and things like that. And sometimes I have to answer some questions like about the training, so yeah, it is something similar'* (Participant 22). Assessments were also mentioned as being frequent when joining new workplaces or work units, as illustrated by Participant 2 below.

...like while we have to do our trainings like, [...] I mean before applying for work there will be certain assessments that need to be done. For example, like, if I have to join a new facility then I will have to like give a certain test for that one (Participant 2).

The **re-order paragraphs** task was either seen as irrelevant to the workplace setting, or participants made connections to other contexts where they needed to organise their thinking. Two participants (Participants 12 and 28) for example explained that this skill was important when listening in workplace contexts. Participant 12, explained that *'when some patients speak to you and you just need to re-arrange your thinking to suit their thinking to understand them in some way'* (Participant 12). More specifically, Participant 28 described this same idea as Participant 12, when listening to dementia patients, who often speak incoherently. She argued that these dementia patients *'sometimes don't know what they are saying, so you have to try to make sense'* (Participant 28).

Besides the test method (or task type), participants frequently commented on the skills that were involved in completing a task. When discussing the **multiple choice** tasks, many commented on the skimming and scanning skills that were needed to complete these. For example, Participant 14, when asked whether they have to draw on skimming and scanning in their workplace reading, mentioned that this was very relevant when reading legal documents:

Yeah, definitely because as I said sometimes the legal documents and some documents just like full on like so many things on there that you just need to find out the most important things on that document and be quick. Be able to find out yeah, so and I think the questions, those multiple choice or single questions are asking for like the centre, the main meaning, the writer was wanting to express on this whole passage. So yeah, I think it is quite similar in ... yeah, we use these skills in nursing (Participant 14).

Participant 16 and 29 could also relate the need for these reading skills to other types of workplace reading, such as finding information in patient histories or looking for specific laboratory results:

relating to work yes you may just wanting to know which hospital is this patient to go and they gave you the whole summary of this patient's history. So you can, your question will be which hospital did this patient go? And then you read it and then you brief reading and find that key information and you find your answer. So yes, I think it is irrelevant, it is relevant to work (Participant 16).

Same as when you are trying to get an information from a whole bunch of text and then you are just looking for something that is really important so on a daily basis at work, we do that, but when we read lengthy patient history and also their laboratory results (Participant 29).

The **re-order paragraphs** task was by many participants considered to be testing logical thinking, and this was by some considered to be relevant to their work, but not by others. Participant 14, for example, mentioned that they thought that this task was not relevant to their workplace *'because as I said, it just test your logic [...] during my practise of this specific question I find out there is sometimes I did the text like the second time of the third time so I will made the same mistakes. Because my logic is different from the logic of the writer, so you just never get it right and I don't believe this specific task list is quite relevant to nursing'* (Participant 14). Participant 26 noted that *'it [the reorder paragraph task] doesn't make sense [...]. I think this is just trying to test your ability to be logical. We need to be logical at work but then they won't like do it like that anyway...'* (Participant 14).

The fill in the blank tasks were considered to be measuring the ability to supply exact vocabulary. Participant 16 thought that this was not a skill that was needed in the workplace because *'I don't have to put exact words inside, I can use other words'* (Participant 16), while Participant 17 expressed that this ability was needed in the workplace, as *'specially with the medical terms we have to really choose correct terms, for example, wound dressing or granulating so that when your colleagues read about it, they know what stage the wound is or if it needs, a change in you know routine care or anything'* (Participant 17). This participant was relating the fill in the blank task more to writing, rather than reading, as can be seen by the quote. Also, Participant 4 thought that this task tests spelling skills, as can be seen in the quote below.

When we are reading like nurses have to read about, um, different body systems, right, different medical conditions, if you have good knowledge you can write down the correct spelling of medicines, you can write down the correct spelling of the medical conditions as well but if you are making so many mistakes, even writing one medication in the wrong spelling, then it can affect the understanding of the person about the medical knowledge

they have it or not, so I think this is very important in Reading and Writing that you should know about it (Participant 4).

One participant also criticized the fill in the blank task for lacking context, as only one sentence is given.

While the reading skills required to complete the task types were seen as relevant to the workplace, the content of the reading texts was generally seen as irrelevant. Participant 13, for example, noted when asked whether the two **multiple choice** tasks were relevant to the workplace domain, *'not the content, obviously, but yeah, I think just have to keep a close eye on the main points, the main paragraph that he is talking about'* (Participant 13). This view was also reflected in other interviews.

After being asked about specific item types, participants were also asked whether they felt the reading section as a whole was relevant to the workplace. The views collected from participants in response to this question varied. Some participants, for example, mentioned that there is not a lot of reading required of nurses, and it therefore didn't matter that the test tasks were not very relevant. The main criticism raised by other participants was that the task types were generally not relevant. For example, one participant mentioned that the task types are quite limiting, and were not able to capture the complexity of reading (*'PTE has this format that it is just assessing one or two skills of yours at the same time'*, Participant 11). Another participant thought that the PTE Reading sub-test captures a different type of reading, one more focussed on knowledge of English and grammar (Participant 27), which is less relevant to the nursing workplace, while the topics of the readings were mostly seen as irrelevant to the nursing domain.

Five participants, on the other hand, thought that the reading sub-test successfully (or partially successfully) captured the reading they needed to do at work. Participant 32, for example, noted that *'the reading task it help, yeah, very handy, yeah, it helps to analyse topic and you know like to improve your analyse skills and reading skills as well'* (Participant 32). Participant 29 thought that all the tasks, apart from the fill in the blank tasks were relevant.

Two participants seemed to confuse task difficulty with construct relevance. Participant 19, for example, noted that *'the test is more difficult than what you do at work to tell you the truth'* (Participant 19). Similarly, but talking more about the PTE as a whole, Participant 14 mentioned when asked about how well the reading tasks together capture the kinds of reading done at work:

I wouldn't say fully because sometimes even though you pass the exam, you know some people pass the PTE exam but when they go to the workplace they still find it struggling because of the language thing. Because this is just unavoidable because for a test, for exams if you practise enough, if you spend enough time you will be able to get a score. Yeah, even though you can't pass it the first time, if you just go sit a test for like ten times, you will be able to pass it and you will get your registration but int the workplace, [...] you need to learn how to be a nurse as well (Participant 14).

The final question about the reading section asked participants what they thought was missing from the reading test that they have to do in the workplace. Common responses to this question focussed on the types of texts that should be included in the reading. Suggestions ranged from medication lists, policy documents, medication details, scenarios about patients, consent forms, progress notes, x-ray reports, and handover notes to care plans. Several participants also suggested including integrated, reading to write tasks, such as summary tasks (e.g., reading doctor notes and summarizing these) to make the reading section more relevant.

Listening

Table 6 below lists the number and percentages of participants who categorized each of the listening tasks into being relevant, somewhat relevant or irrelevant to their workplace communication.

Listening tasks	Relevant		Somewhat Relevant		Irrelevant	
	N	%	N	%	N	%
Summarize spoken text	22	76	3	10	4	14
Multiple choice (choose single/multiple answers)	10	38	5	19	11	42
Fill in the blanks	8	33	6	25	10	42
Highlight correct summary	8	31	5	19	13	50
Select missing word	7	29	7	29	10	42
Highlight incorrect word	11	46	9	37	7	29
Write from dictation	16	57	4	14	8	29

Table 6: Number of participants categorizing listening tasks according to workplace relevance

Note: not all interview responses could be clearly coded into these three categories and for this reason the numbers don't all add up to thirty.

The table shows that the participants felt that the **summarize spoken text** and **write from dictation** tasks were the most relevant to their workplaces. The other tasks were seen as slightly less relevant. The table also shows that there was much variation among the thirty participants in terms of their responses to the interview questions. We will take this up in our discussion later in the report.

As was the case with the reading tasks, the overall responses summarized in Table 6 above mask the more detailed qualitative responses. In the following section, we describe some of the themes that emerged from the interviews in response to each task.

The **summarize spoken text** (a listening to write task) was deemed similar to the workplace in various aspects. It was seen as a common task in handover (Participants 8, 13, 17, 24, 26), although Participant 20 noted that nurses were unlikely to summarize what they heard, but rather take notes as illustrated in the excerpt below.

...handovers, we just, we write it only words but if it is important, if he is diabetic, or he has antibiotics, those kind of stuff. So we focus on the words... (Participant 20).

Filling out assessment forms, and writing progress notes, or answering the telephone at work (Participants 15, 29) were also seen as relevant to this PTE task. Two nurses also reported that they regularly reported back to other staff members what they had learned at training seminars or conferences (Participants 26, 31). Several nurses noted that the task completion process in particular was common in aged care provision (Participants 1, 14, 29), for example when they needed to complete an incident report (Participant 14), ring up the hospital for an update on one of their residents (Participant 23), or talk to residents and families (Participants 11, 22), as illustrated by the excerpts below:

For example, your staff, your PCA [personal care assistant] came to you and say, 'Oh, that resident has had a fall. I witness all and we have done all the assessments on him.' And then because you are the nurse, you have to do all the paperwork and documents so you have to file up an incident report in which you will be able to summarize form the speech that that support worker gave it to you just now. So it seems quite relevant, yeah, we use that, yep (Participant 14).

For example, the information sometimes when your patient is in the hospital and then you ring up to see what is going on and they give you the information then you have to write that down in the progress notes (Participant 23).

Ward rounds were also seen as a place where similar listening demands were placed on the nurse, but the writing demands differed – nurses are either not required to document (Participant 10) or they sometimes take some rough notes (Participant 11). In other cases, the listening task was again seen as relevant, but the writing included writing down everything word-for-word (rather than summarizing), as what they wrote was seen as a legal document (Participants 9, 12, 27).

However, aside from the similarities of the **summarize spoken text** task to workplace tasks reported above, several aspects were seen as quite different. For example, the PTE task was seen as more difficult than workplace listening to write tasks (Participants 1, 19) because there was no face-to-face component, no opportunity to ask for clarification (Participants 1, 24), the task was longer, and with time pressure (Participants 1, 5), pressure to get the spelling and the grammar correct when writing (Participants 1) and the content was not medical (Participants 16). In the quote from Participant 1 below, some of these aspects are summarized:

Sometimes, the words in the lecture, were really hard, so I would say it is harder than in real life. Because you know you are face to face, you are not doing like digital, I am talking with the person face to face when you do the communicating, because you are talking for a long time, there is not time limits [...], if I don't understand, I will ask them to repeat again. Which is in the PTE, you are only listening once, and you are under pressure, so you won't get information you are writing too fast to get all the information and you are missing main points sometimes. [...] You just sometimes you know under

pressure like what is para going to be like, how youa re going to write it, is your spelling right, is your grammar right. It is too much pressure while you are writing it in the exam and there is a time limit obviously (Participant 1).

The participants' view of the relevance of the two **multiple choice tasks** (choose single answer, choose multiple answers) was also not consistent. Eight participants (Participants 1, 4, 8, 9, 23, 24, 27, 30) noted that this task resembled no workplace tasks. A number of participants mentioned that the listening part of this task resembled listening processes in the workplace. For example, Participants 11 and 13 noted that the listening process needed to complete this task was similar to what they had experienced in training. Participant 12 noted that identifying key words when listening was highly relevant to the workplace, and Participants 7 and 14 noted that they often needed to listen for main points. Listening for specific information and at the same time ignoring irrelevant information was also seen as common workplace listening tasks (Participants 16, 21, 22, 31):

So I'm still in my placement... say today she wants me to focus on patients, the PCA, the patient control analgesia, and she wants me to focus on that part and then we got a new admission from the theatre and then when I was listening to handover I will definitely listen to everything, but specifically I will be more focussed on the analgesia, how long has this patient had, um, morphine. I will be definitely more focussed on that. (Participant 31).

Participant 29 found similarity between this task and listening in phone conversations which often ended with a comprehension check:

So with that telephone communication as well, it is still connected to you summarizing information that you actually got from your colleagues, so all of these is actually very relatable to my workplace. It comes in different forms but they all would actually tell you one thing and it would just validate whether the information that you have, whether you have got the correct information from what you have heard over the phone or from what you have heard from someone or something like that (Participant 29).

The majority of the participants however noted that while listening in general, or listening to specific points or key words was highly relevant, the test method (multiple choice items) was not relevant to the workplace (e.g., Participants 16, 28), nor was the content of the PTE (Participants 5, 12). The time pressure in the PTE was also again mentioned as being different to the workplace (Participant 6).

The **fill in the blank** task, which requires test takers to listen to a text and complete missing words in a text, was seen by many participants as irrelevant to their workplaces (Participants 3, 14, 14, 17, 20, 21, 23, 30, 32). Others mentioned that the listening aspect of this task is relevant to the workplace but not the writing (Participants 4, 26, 28). Participant 22, on the other hand, thought that listening and writing at the same time was something she had to do at work. This was also compared to listening happening during handover, and the quick notes that needed to be made (Participants 7, 31). Similarly, Participant 6

thought that listening with fast writing and accurate spelling was relevant to the workplace tasks.

As was the case with the previous tasks, participants mentioned that the content (Participant 31) and the vocabulary (Participant 15) of the fill in the blank task were not relevant to their workplaces, and one participant mentioned that straight out typing words was not something she was required to do at work (Participant 1).

Many participants considered the **highlight correct summary** task as irrelevant to their work (Participants 1, 3, 4, 5, 8, 10, 11, 13, 14, 30). Others, as was the case for the previous tasks, considered the listening skills needed to complete this task as relevant in general (Participants 6, 7, 12, 22, 26, 27, 32). More specifically, Participant 16 mentioned that this task forced them to listen to more than just the key words to understand the entire content of the listening. Participant 15, described a task he considered equivalent in his workplace:

So [you need] listening and reading, so you just listen properly what the speakers wants to say and then we need to read quickly about the passage and find out the exact answers they want to require. This one was quite a good example. We need to find that folder, we need to have a look on the specific report, and the assessment from the listening because emergency, the hospital want to find out the documentation quickly. So we need to have a look in the folders what they want us to, such as like incident report and neural observation report, they want to know quickly. So we need to look quickly and also have a read through and let them know (Participant 15).

Other participants, as was the case in previous tasks, mentioned that the response format was not relevant to their workplace (Participants 1, 2, 9) or only to their training (Participant 23). Participants 1 and 9, in particular, mentioned that the test method was quite counter to what they experienced in the workplace. Participant 1 thought that the four options were purposefully written to confuse, and Participant 9 argued that *'in health area you cannot do that, you just need to be really direct and specific about what you are actually thinking and asking [...] instead of having a detour in your conversations'* (Participant 9).

The **select missing word** task was also described as irrelevant by a large number of participants (Participants 4, 9, 10, 11, 12, 13, 14, 15, 21, 30). Three participants (Participants 1, 16, 28) mentioned that that type of listening is relevant when listening to old patients or patients with dementia, as such patients may at times stop mid-sentence and nurses need to complete the sentence for them. Participant 1, for example said *'I am working with old people so something they have difficulty speaking and explain something, you might guess what they are trying to say next word. In that case, I can maybe say that it is a little bit useful'* (Participant 1). On the other hand, the type of task was not seen as relevant to conversations among health care professionals, as *'in health care we have to communicate clearly'* (Participant 15), and when speaking with other nurses *'we don't stop mid-sentence'* (Participant 26). As was the case with other listening tasks, listening as a skill was seen as relevant, but the task type/test method was seen as irrelevant.

The responses to the **highlight incorrect word** task generally followed a similar pattern to the previous tasks in that many participants considered it irrelevant to their workplace (Participants 3, 5, 6, 8, 9, 14, 29, 30). Others mentioned that 'sharp' listening skills were crucial to their workplaces (4, 7, 10, 12, 13, 14, 26, 31, 32). Participant 12, for example, mentioned that careful listening was needed when discussing medications, as illustrated by the following quote:

'when speaking to other professionals especially because sometimes when we have medications, if it is not charted yet, some medications really really really similar, so that is when we will need the skill' (Participant 12).

Others thought that this close and careful listening was needed when someone used an incorrect term at the time of handover (Participant 17), when listening on the telephone (Participant 15), or when there was background noise in the workplace (Participant 23). Participant 20, on the other hand, noted that in the workplace there was always the opportunity to clarify terms when listening, and Participant 28 said that this was needed at times when talking to patients who may provide wrong information:

Let me say one example, it can also happen to you a lot with dementia or disability patients where they are like just daily chatting but makes things wrong, like there was one time a 90-year-old patient told me that she saw her mother, which is really incorrect. So yeah, usually you tell them that it is not your mother (Participant 28).

The final listening task, **write from dictation**, was deemed as workplace relevant by more than half of the participants. Tasks that required these processes included completing a personal preference form with a resident in aged care (Participant 10), taking phone orders (Participants 9, 21, 31), and documenting exactly what family members (Participant 11) or patients say (Participant 12, 19). In two cases it was mentioned that the exact documentation, for example, in doctor's orders, was important due to legal reasons (Participants 6, 19). Below, we show some sample quotes from the interviews:

I don't do this unless they have unforeseen circumstances, like there has been a real emergency that is happened in front of me. For example, we do get patients who are like prison or some rehabs or something like that, what happens is like a relative would be coming into see and they get a fight or something like that, then I have to exactly document that otherwise I don't document (Participant 12).

It happens when for example a patient refuse the medication. Then I will write down what the patient says so I think that is when we need to use the quotation marks and write whatever they say instead of paraphrasing or summarizing. Or some patients refuse signing a consent form and that is when we need to write down what they have said. And that is when we are writing from dictation (Participant 12).

Others noted that they were unlikely to write down word for word what was said in their workplace. Instead, they might be more likely to write a summary (Participants 8, 13, 26, 29),

some sentences (Participants 14), medication names (Participant 15), specific medical terminology (Participant 2), or abbreviations (Participant 24).

Others, again, thought that the task was irrelevant to the nursing workplace (Participants 3, 5, 27, 28).

Participants were also asked whether the listening tasks captured listening at work well. The responses were split half and half. One participant (Participant 1) thought that the test did not capture the complexity of communicating in multi-disciplinary teams where communication required interaction with different staff members on different issues. Participant 11 thought that the listening did not *'bring the patient's perspective, like for instance if the patient want to escalate an issue or something like any complaints there isn't any task which makes us think as nurses. Like something to help me like for example I would just say again conversation type, a task which requires a conversation'* (Participant 11).

Participant 16 noted that in real life you could always ask for clarification. She said *'one of the skills that is not covered is you couldn't clarify they only gave you one... but at workplace you really can ask again and pardon me? They don't say if you want them to say slowly they say slowly... it is communication, not a test'* (Participant 11).

Participant 8 also noted that the PTE listening test does not draw out the specific skills required of a nurse, and that many people passed and were not able to function properly once they were working:

No, the PTE listening doesn't even come close [...] passing it [the PTE] is not the same as knowing how to speak and understand. I think [the test] should be practical... if you come on the floor at place of work you will be really, really shocked (Participant 8).

Discussion

The study set out to examine the relevance of the PTE Academic to the nursing domain. Thirty past PTE test takers were recruited and invited to participate in interviews. All participants were working in nursing or nursing-related roles at the time of the interviews, and therefore had a good insight into the communicative tasks that they needed in their workplaces. The interviews were semi-structured and aimed to elicit in-depth responses from the participants about each PTE Academic task types. To stimulate participants' memories, they were provided with a PDF document with sample tasks, and asked to describe what they had to do for each task before describing the relevance of the task to their workplaces. Pearson PTE tasks, although scored across skills, were grouped according to the four skills for this purpose.

The analysis of the responses for speaking showed that all of the speaking tasks were found to be relevant by at least half of the interviewees. The **retell lecture** and **answer short question** tasks were deemed the most relevant of the speaking tasks, and the **describe image** the least relevant. Neither of the two writing tasks were seen as particularly relevant and the participants' responses to the reading tasks varied, with just over half of the participants judging two of the three task types as relevant or somewhat relevant. The

responses to the listening tasks varied, with the **summarize spoken text** and **write from dictation** seen as the most relevant to the listening nurses do in their workplaces.

Table 7 below presents the data slightly differently – in this table we have merged relevant and somewhat relevant responses into one column. If viewed in this way, the speaking tasks are generally considered as relevant, as are half of the listening tasks. Writing and reading tasks are considered slightly less relevant with more than half (or just under half) of nurses considering these mostly irrelevant.

Speaking tasks	Relevant or somewhat relevant		Irrelevant	
	N	%	N	%
Read aloud	23	77	7	23
Repeat sentence	29	97	1	3
Describe image	22	73	8	27
Retell lecture	26	93	2	7
Answer short question	23	82	5	18
Writing tasks				
Summarize written text	12	43	16	57
Write essay	12	41	17	59
Reading tasks				
Multiple choice (single & multiple answer)	17	57	13	43
Re-order paragraph	9	35	17	65
Fill in the blanks (reading; reading and writing)	13	52	12	48
Listening tasks				
Summarize spoken text	25	86	4	14
Multiple choice (choose single/multiple answers)	15	58	11	42
Fill in the blanks	14	58	10	42
Highlight correct summary	13	50	13	50
Select missing word	14	58	10	42
Highlight incorrect word	20	71	7	29
Write from dictation	20	71	8	29

Table 7: Relevance of PTE tasks to nursing domain

An analysis of the qualitative responses showed variation in what participants focussed on when making the decision about task relevance, and it is this information which is more insightful. The aspects the participants focussed on, then, are probably the reason for the variation in responses summarized in the tables showing the relevance of the PTE tasks to the nursing workplace. Some participants focussed on the process required for task completion, others on the content that needed to be conveyed in the task, and others may also consider the length of responses required, the timing between input and output or the difficulty of the task when making such judgements. Others again focussed on the relevance of the input text (if applicable), the response format (e.g., multiple choice), the time limit, the assessment criteria (e.g., is grammar and spelling valued?), and the delivery

mode (face-to-face or computer). Some participants seemed to just judge the language skill in question more holistically (e.g., yes, listening is really important for nurses), rather than examining the specific nature of a task.

Figure 1 below summarizes the kinds of considerations that participants drew on when judging the relevance of the tasks. We have divided these considerations into what Knoch & Macqueen (2020) referred to as the infrastructural and simulation contexts of the operationalized test construct. Our study showed that any of these individually, or a combination of these may influence participants' decision-making. Which of these aspects they focus on may well determine the variability found in the judgements identified in this study (although the diversity of workplaces nurses or personal care assistants were drawn from may also play a role).

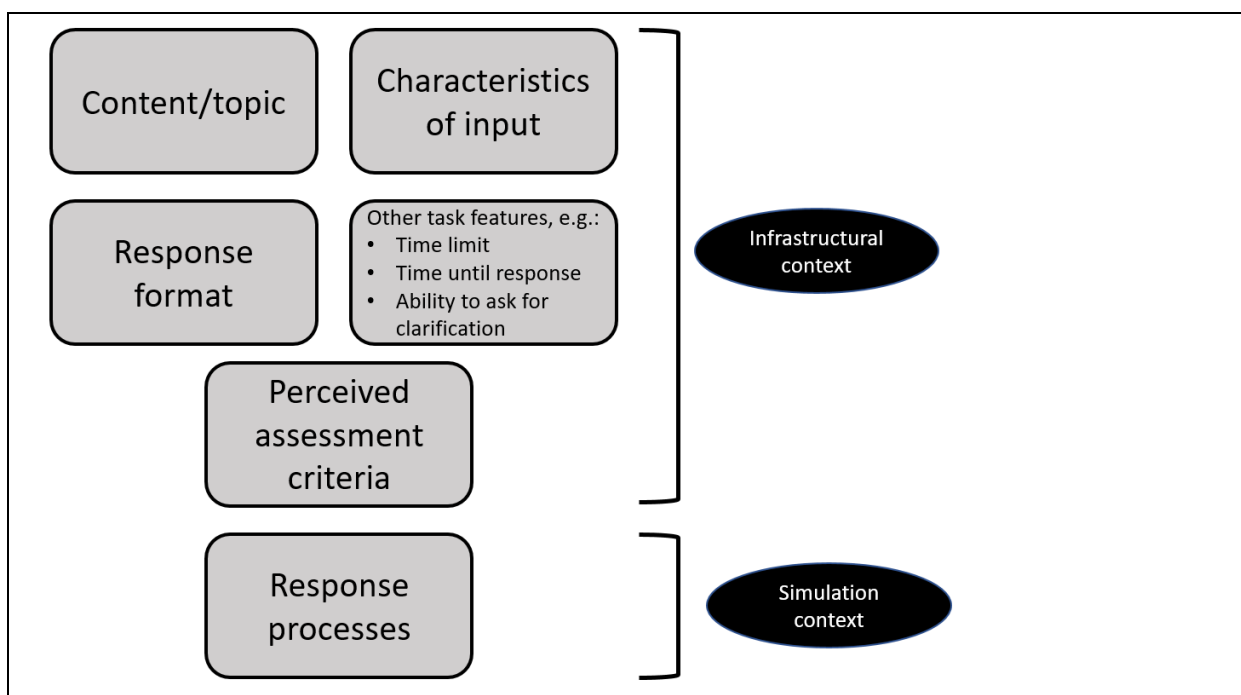


Figure 1: Aspects of tasks and task performance mentioned by nurses

Our research also raises the question about the validity of using domain experts who have previously taken a language test as part of such validation research. Although not explicitly discussed in our results, we identified numerous cases where the participants tried to think of relevant tasks in the workplace domain that resembled a particular test task, but the examples they mentioned were in fact not similar to the task in question. One example was that, when discussing the relevance of an integrated task to the researcher, they might only discuss the relevance of one of the skills, rather than selecting a task where both skills are integrated. For example, when talking about the relevance of the **answer short question** speaking task, one participant described this as being similar to having to complete short online quizzes after staff training, a task which clearly engages very different skills, and does not involve speaking. We had hoped to avoid responses such as these by asking the participants what was involved in completing the task in question in the interviews, but we were not able to fully eliminate such responses. Other participants evaluated tasks much

more shallowly, by only referring to the relevance of a skill overall, as already noted above. It is of course not surprising that the nurse participants are not able to evaluate communicative tasks in the same way as a language-trained researcher can. At the same time, interviews such as the ones we conducted for this study are an efficient means of collecting information about the nursing workplace. Had we only administered questionnaires to a group of participants, the rich, qualitative nature of the responses would have been lost, and we would have likely only gathered the type of data we have presented in the four tables outlining the relevance of the tasks to the nursing domain.

While the nurse participants were generally able to form an opinion about the relevance of individual tasks, they found it harder to make a judgement about construct coverage of groups of tasks (e.g., all speaking tasks together). Many found it hard to identify speaking tasks not captured by the PTE tasks, and only one participant noted that the PTE atomized speaking skills, whereas many of these skills were needed at once in the workplace.

We would now like to return to Table 1, which sets out the assumptions for which we collected partial backing in this study. As our discussion above indicates, interviewing nurses who have insider knowledge of the PTE has provided an important insight into the relevance of the PTE to nursing. At the same time, the variability in the data that can be seen both in the summary tables, as well as in the more qualitative description of the data we presented, seems to indicate certain limitations to using past test takers as interview informants. There were, however, some clear trends in the data indicating the speaking and listening tasks to be more relevant than the reading and writing tasks, probably mirroring the language demands on nurses more generally (see also Chege & Garon, 2010; Konno, 2006). Past test takers who are now domain insiders were able to identify a number of tasks that reflect the communicative tasks they are faced with in the domain. For assumption 1 (Assessment tasks mirror those in the TLU domain), we have collected partial backing, and this varies from task to task. Our data also shows how difficult this question is to answer, as assessment tasks can be viewed and described from a variety of aspects, as we have discussed above. For Assumption 2, the backing is less certain. While some participants supported this statement for some sub-skills, others did not agree, and argued that certain tasks were missing, and that for those that were present, the reality of the workplace was much more complex, and not as atomized. Assumptions 3, and 5, which are similar in nature, also received partial backing. Some tasks were considered as eliciting similar processes and knowledge by some participants, others less so. Assumption 4, focussing on the test administration conditions, were not a focus of this study, but several participants mentioned, in particular in relation to the speaking test, that the PTE did not represent the face-to-face nature of the workplace, and also did not allow for opportunities to ask for clarification as would be possible in the nursing domain. Finally, Assumption 6, the scoring mechanism, was also not a focus of this study. Interestingly, however, several participants mentioned this indirectly in their responses when talking about aspects that were important in the PTE or their nursing workplaces, that is, what is valued. In several interviews nurses mentioned that criteria such as accuracy, correct spelling or the need to

write in full sentences were not important in their workplaces, while these were emphasised in the PTE.

Overall, the study found partial backing for the relevance of the PTE to the nursing domain, in particular for particular tasks in the speaking and listening sub-tests.

Inference	Assumptions
Domain description	1 Assessment tasks mirror those in the TLU domain
	2 Assessment tasks chosen sufficiently represent the TLU domain
	3 The assessment tasks elicit and are sufficiently representative of the types of skills, knowledge and processes needed in the TLU domain
	4 Test administration conditions mirror conditions of language use in the TLU domain
Extrapolation	5 Test-taker's interaction with the test tasks is similar to language performance in the TLU domain
	6 The scoring mechanism reflects the evaluation criteria used in the TLU domain

Table 1: Specific inferences and assumptions addressed in this study

The methodology we chose for this study has some clear limitations. The time since taking the PTE varied for the participants and they may not have had full recollection of the PTE tasks at the time of taking the interview. We tried to mitigate this problem by sending each participant screenshots of all tasks prior to the interview and asking them in the interview to reflect on the process they went through answering each task. Nevertheless, as we discussed above, some participants did not seem to draw on all aspects of the task when they were discussing the relevance to their work domain. While nurses have an in-depth insight into the communication in their own workplaces, they may not reflect on communicative tasks in the same way as language testers or teachers may and gathering insights in this way through interviews is not always possible. At the same time, conducting observations in workplaces, and linking these to test tasks is also a difficult undertaking, and would also rely on a one-sided view of similarities of workplace and test tasks.

Another limitation of the current study is the sampling methodology we drew upon. Past PTE candidates who indicated that they were taking the test for nursing registration purposes were contacted by the PTE with a mass mailout. Interested candidates were asked to contact the researchers directly. This convenience sample may not reflect the broader group of past test takers who are now working in nursing workplaces. Unfortunately, however, it was not possible to recruit participants by other means. We hope that the responses we have collected are representative of the larger population.

Grouping the mostly integrated skills tasks on the PTE into four distinct skills for the purpose of the interviews may also have given the participants the indication that the skill being discussed at the time (e.g., speaking) may be more important than the features of the task overall. However, a close review of the responses showed that participants focussed on many aspects of the tasks when responding, not just the skill that was discussed as the

focus. We also hope that this was mitigated by asking participants what they needed to do to complete the task.

Conclusion

Studies such as the current research form an important part of validation research, in particular in cases where tests are used in a context or for a purpose other than what they were initially developed for. The use of domain expert informants who are also past test takers is innovative in this domain, but also not without its problems, as we have discussed above. We hope that more such research can inform the use of English language proficiency tests used for professional registration purposes. Not only are the findings useful to inform policy makers about test use, they are also useful for test developers to inform the development of instruments used in such contexts in the future.

References:

- Brown, J. D. (2016). *Introducing Needs Analysis and English for Specific Purposes*. Routledge.
- Chapelle, C. (2008). The TOEFL Validity Argument. In C. Chapelle, M. Enright, & J. Jamieson (Eds.), *Building a validity argument for the Test of English as a Foreign Language* (pp. 319-352). Routledge.
- Chapelle, C. (2012). Conceptions of validity. In G. Fulcher & F. Davidson (Eds.), *The Routledge Handbook of Language Testing*. Routledge.
- Chege, N., & Garon, M. (2010). Adaptation challenges facing international educated nurses. *Dimensions of Critical Care Nursing*, 29(3), 131-135.
- Chun Tie, Y., Birks, M., & Mills, J. (2017). The experiences of internationally qualified registered nurses working in the Australian Healthcare System: An integrative literature review. *Journal of Transcultural Nursing*, 1043659617723075.
- Cowling, J. D. (2007). Needs analysis: Planning a syllabus for a series of intensive workplace courses at a leading Japanese company. *English for Specific Purposes*, 26, 426-442.
- Cummings, V. (1990). Speech and writing: An analysis of expository texts compared by native and non-native speakers of English at The City University of New York. *Dissertation Abstracts International*, 51(7), 2296A.
- Curtis, K., & Tzannes, A. (2011). How to talk to doctors - a guide for effective communication. *International Nursing Review*, 58, 13-20.
- Drach-Zahavy, A., & Hadid, N. (2015). Nursing handovers as resilient points of care: linking handover strategies to treatment errors in the patient care in the following shift. *Journal of Advanced Nursing*, 71(5), 1135-1145.
- Flowerdew, L. (2012). Needs analysis and curriculum development in ESP. In B. Paltridge & S. Starfield (Eds.), *The Handbook of English for Specific Purposes* (pp. 341-363). John Wiley & Sons.
- Foronda, C., MacWilliams, B., & McArthur, E. (2016). Interprofessional communication in healthcare: An integrative review. *Nurse Education in Practice*, 19, 36-40.
- Fulcher, G. (2013). Test design and retrofit. In C. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. Blackwell Publishing Ltd.
- Greenberg, I. (2012). ESL needs analysis and assessment in the workplace. In C. Coombe, P. Davidson, B. O'Sullivan, & S. Stoyhoff (Eds.), *Second Language Assessment* (pp. 178-186). Cambridge University Press.
- Hawthorne, L. (2001). The globalisation of the nursing workforce: barriers confronting overseas qualified nurses in Australia. *Nursing Inquiry*, 8(4), 213-229.
- Kane, M. (2006). Validation. In R. L. Brennan (Ed.), *Educational measurement* (pp. 17-64). American Council on Education / Praeger.

- Kane, M. (2013). Validating the interpretations and uses of test scores. *Journal of Educational Measurement, 50*(1), 1-73.
- Kawi, J., & Xu, Y. (2009). Facilitators and barriers to adjustment of international nurses: an integrative review. *International Nursing Review, 56*, 174-183.
- Knoch, U., & Macqueen, S. (2020). *Assessing English for Professional Purposes: Language and the workplace*. Routledge.
- Knoch, U., May, L., Macqueen, S., Pill, J., & Storch, N. (2016). *Transitioning from university to the workplace: Stakeholder perceptions of academic and professional writing demands* IELTS Research Report 2016/1.
- Konno, R. (2006). Support for overseas qualified nurses in adjusting to Australian nursing practice: a systematic review. *International Journal of Evidenced Based Healthcare, 4*(3), 83-100.
- Li, H., Nie, W., & Li, J. (2014). The benefits and caveats of international nurse migration. *International Journal of Nursing Sciences, 1*(3), 314-317.
- Long, M. (2005). Methodological issues in learner needs analysis. In M. Long (Ed.), *Second language needs analysis*. Cambridge University Press.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: a methods sourcebook (3rd Edition)*. SAGE Publications.
- Neiterman, E., & Bourgeault, I. (2013). Cultural competence of internationally qualified nurses: Assessing problems and finding solutions. *Canadian Journal of Nursing Research, 45*(4), 88-107.
- Norgaard, B., Ammentorp, J., Ohm Kyvik, K., & Kofoed, P.-E. (2012). Communication skills training increases self-efficacy of health care professionals. *Journal of Continuing education in the health professions, 32*(2), 90-97.
- O'Neill, F. (2011). From language classroom to clinical context: the role of language and culture in communication for nurses using English as a second language A thematic analysis. *International Journal of Nursing Studies, 48*, 1120-1128.
- Sedgwick, C., & Garner, M. (2017). How appropriate are the English language test requirements for non-UK-trained nurses? A qualitative study of spoken communication in UK hospitals. *International Journal of Nursing Studies, 71*, 50-59.
- Serafini, E., Lake, J., & Long, M. (2015). Needs analysis for specialized learner populations: Essential methodological improvements. *English for Specific Purposes, 40*, 11-26.
- Staples, S. (2015). Examining the linguistic needs of internationally educated nurses: a corpus-based study of lexico-grammatical features in nurse-patient interactions. *English for Specific Purposes, 37*, 122-136.
- Xu, Y. (2008). Communicative competence of international nurses and patient safety and quality of care. *Home Health Care Management & Practice, 20*(5), 430-432.

Xu, Y., Shen, J., Bolstad, A., Covelli, M., & Torpey, M. (2010). Evaluation of an intervention on socio-cultural communication skills of international nurses. *Nursing Economics*, 28(6), 386-408.

Appendix A: Interview questions

Interview procedures:

Thank you so much for agreeing to take part in this interview. Before we start, can I just check with you – is it okay that I record this interview?

Interview Part 1 – keep this short (5 mins max)

Today, I would like to ask you some questions about your communication at work as well as the relevance of the PTE Academic to the work you do.

1. *So firstly, could you please tell me about the typical communication tasks you encounter on a daily basis at work? (ask specifically about spoken communication, written communication, reading and listening)*

Example follow up questions:

- a. *Can you tell me which particular colleagues you communicate with on a typical day?*
- b. *Can you provide examples of your communication with doctors?*
- c. *Does your daily workplace communication involve writing?*

Interview Part 2 – main section (40 minutes approx.)

- *Let's take a look at the PDF I emailed you containing the PTE task examples.*
- *For each task, firstly I'm going to ask you what you needed to do to complete it. Then, I'll ask you about the tasks' relevance to communication in your workplace.*
- *At the end of each skill section (speaking, writing, reading, listening), I'll ask you whether or not the section covers related skill-specific workplace tasks. Then we'll move on to the following sections until we're finished.*

Interview participants are directed to each Pearson PTE sample task – one-by one.

When looking at a task, the following questions are asked:

1. *Please explain what you had to do to complete this task.*
2. *Did you do any specific preparation for this task?*
3. *What skills do you think are required to successfully complete this task?*
4. *Do you think this task is relevant to your communication at work? In what ways?*
5. *Can you give any specific examples of workplace communication that relates to the task?*
 - a. *Is this task fully capturing the task you just described at work? How is it similar, how is it different?*
 - b. *What is missing in this task that you may need to do at work?*

At the end of each test section:

1. *That brings us to the end of the (listening/speaking/reading/writing) section. Do you think that these tasks fully capture the kinds of (listening/speaking/reading/writing) that you have to do at work? If not, what skills that you require for the workplace are missing from the test section?*

2. *Which tasks are most relevant to the (listening/speaking/reading/writing) you have to do at work? How so?*
3. *Which tasks are the least relevant to the (listening/speaking/reading/writing) you have to do at work?*

FINAL QUESTION:

Can you think of anything that could be added to the test to make it more relevant to your job?

END:

Formalities, provide gift certificate information

