A Discursive Analysis of Novice-Professional Differences in Problem Solving Approaches to Translation Challenges

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Abstract

This paper reports the discursive analysis of novice-professional differences in problem-solving approaches to translation challenges. A semi-structured interview was individually conducted with 16 professionals and 16 student translators. Key interview questions were prepared and seven simulated scenarios were created. During the interview, each participant was asked to describe how they would address the ill-defined scenarios and further questions were asked, where necessary, as to what kind of solution(s) they would employ and their justifications of the chosen solution(s).

Overall, professional participants were prone to approach to the challenges in a holistic and flexible manner (e.g. the use of a wide range of solutions with consideration to other stakeholders), while novice participants generally indicated their lack of understanding of translator's roles and confidence about their competencies. The findings in this study can be a useful reference to accommodate this aspect of problem solving in translator education classrooms.

1. Introduction

Building on the research findings concerning novice-professional differences in these kind of translating challenges (see Inoue, 2008: hereinafter called 'Study 1'), the present study aims to investigate novice-professional differences in their problem-solving approaches in response to the key translating challenges, which were identified in Study 1.

This paper shares the same motivation as in Study 1 - addressing the growing concerns about mismatches between learning outcomes, which are gained through professional education and workplace requirements, and searching for key aspects of translator expertise, which enables novice translators to acquire translator expertise required in the real world in an effective manner. To avoid the overlap of key conceptual frameworks[i] presented and discussed in the earlier study, this paper places a particular focus on discussing key issues concerning problem solving in the realm of

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translation.

2. Theoretical Framework

2.1 Social Change and Problem Solving

Society is transforming itself into a more global society where information sharing and the advancement of technology generates the further need of creating new knowledge and expertise. In other words, as Masukawa (2016) posits, we are facing a dramatic paradigm shift towards the increasing criticality of creating and configuring new knowledge. The act of adequately dealing with new knowledge can also be considered as ‘ill-defined’ problem. The international survey on workplace problems conducted by OECD (2013a) indicates, for instance, the clear contrast of routine and non-routine problems, stressing the need of workers’ ability to adequately deal with the latter. As Spector and Kinshuk (2011) point out, those professionals who are able to perform successfully in such circumstances tend to be increasingly given more merit in the professional community in a wide range of domains (e.g. legal and business management). This also suggests that there is an increasing demand for ‘professional problem solvers’ (p. 3) in professional domains in which such professionals are sought out for tasks with high level of complexity. Despite the paradigm shift as described above, professional and higher education in general has been criticized for their failure to develop problem-solving expertise (e.g. ACNielsen Research Services, 2000; Boyatzis, Stubbs, and Taylor, 2002).

As seen above, it is clear that problem solving has now become the one of the critical aspects in professional communities, including translating. Professional practitioners have now come a crossroads, in regards to the need to constantly develop and acquire problem-solving skills required in their ever-changing field of expertise.

2.2 Problem Solving in Translation Studies

Despite such a paradigm shift, how has the aspect of problem solving in translation been treated in Translation Studies? As Wotjak (1997) and O’Brien (2013) postulate, discussions and research concerning problem solving in this domain are still in their infancy. Nevertheless, in a limited number of relevant literature, translation is considered a problem-solving activity. Sirén and Hakkrainen (2002) and Beckwith (2016) are of the view that translation tasks are ill-defined in nature. They indicate that the ill-defined nature of translation also stems from the multiplicity of solutions for one problem. In a more concrete sense, there are only a few limited models of the problem-solving process available in translation. Wilss (1996: 118) proposes six stages of problem solving – i.e. problem identification, problem clarification, information search, deliberation of how to proceed, a moment of choice, and evaluation of translation results. Krings (1996) proposes four sets of problem-solving strategies – i.e. retrieval, monitoring, decision-making, and reduction strategies. Interestingly, there are a couple of striking differences between Wilss (1996) and Krings (1996). Firstly, the former incorporates the comprehensive profile of problem solving, while the latter tends to place a particular focus on the issue of equivalence suggesting that it does not accommodate any problem beyond the textual level. As Shih (2015) points out, another striking difference concerns their reversibility of the process. While the former clearly displays its nature of proceeding from one stage to another, Krings indicates that the problem representation does not need to take place prior to proceeding to the subsequent strategies.

The limited quantity of research, as briefly illustrated above, suggests that inquiry into problem-solving in translation is still underdeveloped, and largely based on ‘academic quality criteria only’ (Jääskeläinen, 2012: p. 8), or conceptual framework without underlying empirical evidence. Some exceptions include the extensive empirical studies of PACTE Group’s (Process in the Acquisition of Translation Competence and Evaluation: 1998, 2000), and some experimental studies (using think-aloud protocols) on uncertainty management (e.g. Tirkkonen-Condit, 2000; Angelone, 2009). PACTE Group’s model indicates the centrality of strategic sub-competence in translation competence, and the sub-competence is closely related to a translator’s problem-solving ability. However, further holistic investigations are required to elucidate how problem solving comes into play in translation. The latter studies from the perspective of uncertainty management have generally identified novice-professional differences in regards to professionals’ superior monitoring ability (i.e. reflection on previous situations, planning, and deliberate control over a whole process of the uncertainty management). Nevertheless, as O’Brien (2013) puts forward, the clarification of the roles played by problem solving in translation and the further elucidation of the problem-solving processes in translation need to be developed in both conceptual and empirical senses all the while drawing on conceptual and empirical information. In this sense, the present study serves as a means of identifying translators’ problem-solving approaches, which can be compared with translation performance in future studies.

On the basis of the fact that problem solving appears to play a pivotal role in translating, and the need of empirically investigating problem-solving approaches in the context of translating, a study on the investigation of novice-professional differences in their problem-solving approaches to translation was designed, as illustrated in the subsequent section. The study intends not only to make an attempt to elucidate the profile of problem solving in translating but also to play a role to call for the need of accommodating the aspect of problem solving in the context of translator education.

3. Methodology

Drawing on the theoretical framework presented above, the study carried out in concurrence with this paper aims to discursively examine novice-professional differences in problem-solving approaches. More concretely speaking, there were two primary research questions:

1. *How would novice and professional translators identify and address translating challenges?*

2. *How are problem-solving approaches to translation challenges similar or different between novice and professional translators?*

The first research question aims to understand the ways in which real-life challenges would be identified and addressed. The second question aims primarily to inquire into common and different ways of solving translation problems between novice and professional translators. This is on the basis of an assumption that the investigation of novice-professional 'gaps' in terms of the ways in which the two groups tackle challenges can be crucial in assisting novices to develop the necessary components of translator expertise.

To answer these questions, this study designed and implemented semi-structured individual interviews with novice and professional translators. Detailed information is presented in the subsequent sections.

3.1 Participants

The categories of participants in this study were based on the principles of purposive sampling. Prospective professional participants, all NAATI[ii] -accredited translators in Australia, were contacted for their cooperation with the individual interviews. Those who were either not available or based outside New South Wales were approached for possible email interviews. As a result, four professionals agreed to participate in face-to-face interviews while twelve preferred the form of email correspondence. Novice translators who were undertaking their postgraduate studies on translation and interpreting at a university in Australia at the time of conducting this study were also approached. As a result, sixteen novice translators agreed to participate in the face-to-face interviews. All the participants are specialized in translating from English into Japanese, and their language A was Japanese.

3.2 Research Design

While a narrative can be realised by various forms, a semi-structured individual interview was introduced for the present study. In a semi-structured interview, an investigator usually prepares scripted questions at hand, but these questions are used as a guide to initiate discourse with an interviewee. Additional questions were asked where the investigator felt it was necessary. One major benefit of an individual interview is to allow a researcher to gain access to an individual's in-depth subjective experiences, which is provided in the individual's own language (Burns 2000).

In the present study, there were one independent variable and three dependent variables. The independent variable was translator expertise defined based on years of engaging in professional translating activities. This results in having two different cohorts – professional translators and novice translators, as was illustrated in the previous section. The dependent variables were: a) how participants would analyse situations with ill-defined problems; b) how they would address the ill-defined problems; and c) why they consider their approaches being legitimate (i.e. the justification of their decisions).

Providing authenticated scenarios with the deliberate incorporation of some authentically problematic components considered to be valuable. This is based on the assumption that an authenticated scenario is likely to trigger participants' existing knowledge (both declarative and procedural) and experiences (Gubrieum and Holstein, 2001). Moreover, these can be the core of narratives to draw out the ways in which they would solve key problems. In the face of new knowledge and/or situations through this form of interview, it was anticipated that the ways in which participants would solve problems in response to such situations may emerge. Draft scenarios were first created by the investigator in which all the key challenges that were identified in Study 1 (i.e. discursive analysis of group interviews concerning key challenges for novice and professional translators) were incorporated. At the same time, attempts were made to reflect problematic situations emerged from the group interviews in Study 1 in these scenarios in order to make the situation as authentic as possible. The second opinions of their validity were further sought from two English-into-Japanese professional translators (see the scenarios in Appendix 1).

3.3 Procedure

Recruitments of Participants and Arrangements of Interviews. Both professional and novice participants were approached by the investigator by emails, which was exactly the same way as in the previous study. The only difference was that the investigator and the participants negotiated the locations and times of the interviews since the interviews were conducted on a one-to-one basis.

Implementation of Individual Interviews. All of the face-to-face interviews were carried out in a private room at a university in Sydney, external locations or over emails[iii], depending on participants' preferences. Most of the interviews lasted between 30 minutes and 1 hour. The interviews were initiated with a brief overview of this phase of the research and detailed instructions provided by the investigator. During the implementation of the interviews, each participant was first asked to read through seven scenarios (see Appendix 1). Participants were then asked to describe how they would approach each of the scenarios if they were to be under these circumstances. The investigator asked questions with an aim to elaborate the participant's exact meaning, obtained further details if necessary, and elicited the reasons behind their likely actions. Conversations during the interviews were digitally recorded using an IC recorder and this was used for the purposes of transcription of discourse and analysis in the subsequent stages of the study.

Analysis. The digitally recorded series of discourse were first transcribed. The corrected data were then analysed using several strategies in reference to grounded theory. As to the use of NVivo[iv], the data was first grouped together by identifying recurring themes concerning the ways in which challenges from each scenario were identified and addressed from problem-solving perspectives in order to categorize these themes. During this step, an initial preliminary coding was made to produce free codes where key concepts were named rather loosely and freely. These were then recoded to refine categories and sub-categories in a more distinctive way. Recurring themes were then cross-referenced to other scenarios, and common and/or different ways in which challenges were identified and addressed were sought. These findings were then compared with analysed data from novice translators' perspectives in which the same deductive system of data refinement was employed to examine similarities and differences from those of professional translators. The similarities and differences between novice and professional participants were identified while different contextual settings in different scenarios were taken into consideration, and also themes that were unique to each group were also pinned down.

4. Findings

This section reports and discusses findings regarding two key components: a) summary descriptions of key recurring themes concerning problem-solving approaches, and b) similarities and differences in problem-solving approaches between the professional and novice cohorts. Within the confines of this article, it is not possible to present a complete profile of the results. Instead, I will highlight key areas of novice-professional differences with representative excerpts of discourses by novice and professional participants. It should also be noted that the findings reported below does not intend to generalize novice-expert differences due to its qualitative nature but to present possible aspects of novice-expert differences emerged from the present study.

4.1 Dealing with Risks - Accepting or Declining an Offered Job

Identifying and addressing risks here play a role as a preventative measure and is a critical divergent point that governs whether or not a translator accepts an offered job. In terms of novice-professional differences, a few attributes as points of decisions emerged – domain-specific knowledge, time constraints, and cost-effectiveness of a job.

Domain-Specific Knowledge. Professional participants were prone to express their intentions to decline the job without much hesitation when the job is beyond their domain-specific knowledge. They were aware of the limitation of their capability to produce an appropriate quality of an end-products. As Excerpt 1 below typifies, the participant would ensure to judge the extent to which an ST poses difficulty before making a decision of accepting or declining a job.

Excerpt 1: *In general, I do not accept jobs that are very technical in the field that I am not very familiar with. (…) However, if the document is aimed at general public and is not very technical in nature, I may accept the job.* (Professional 5)

Novice discourses, by contrast, suggested that they perceived that professionals are supposed to take on and complete a job rather than considering potential risks for which they will have to be liable, as exemplified in Excerpt 2 below.

Excerpt 2: *I would try to find it out. I would look for a word based on its nuance but I wonder what I would do if there are so many words that I have no idea of their meanings.* (Novice E)

Timeframe of a Job. In situations where a translator is required to complete a job even if the given time frame is impossibly tight, novice-professional discrepancies were apparent in terms of their decisions. As Excerpt 3 below displays, a careful consideration of deciding whether or not a job should be accepted before informing such a decision to a client was perceived to be essential for professionals.

Excerpt 3: *If I think I won't be able to deal with translating a text appropriately, I would try to make a judgement as early stage as possible because finding another translator would be possible.* (Professional 3)

Novice participants, by contrast, were inclined to attempt to complete the job within an agreed timeframe (see Excerpt 4, for example, below). Such a stance by novices appeared to stem from their concerns about a risk of losing subsequent job opportunities with the client.

Excerpt 4: *Because I am here in a situation where I've got to do this job, I have no choice but get it done. I will do my best before the deadline comes.* (Novice H)

Such a difference appeared to be based upon their different perceptions of 'risks'. For professionals, the most essential point in response to such a situation was to carefully anticipate the extent to which an offered job can be completed within an agreed timeframe at the very beginning of translating process. Novice participants, by contrast, did not appear to possess practical knowledge of the importance of making such a judgement prior to accepting or declining a job.

Cost Effectiveness of an Offered Job. As described well in Excerpts 5 and 6 below by the professionals, they appeared to pay attention to the correlation between time/effort and monetary reward. As Gile (1995) describes, one of the essential aspects for a professional translator in the translation business is to receive financial reward in exchange for the translation services that they have provided. If a translation job fails the above 'give and take' exchange, it means that the job is not financially meaningful for the translators. It would thus be natural for them to be reactive to this aspect of the challenge. No novice participant referred to this issue.

Excerpt 5: *It also depends on how much I get paid taking the job in determining whether to go through all the trouble of learning about the machine or turning the job down all together.* (Professional 6)
Excerpt 6: *As it would take a lot of time for me to complete the translation as I have to find out correct meaning of such technical terms, it would be better for the client to find and use the professional translator, which would save both time and money.* (Professional2)

The above results emerged as key factors for a translator to make a decision on accepting or declining an offered job prior to the commencement of translating. It is also worth stressing that the professional participants displayed their confidence about addressing risks in deciding whether or not an offered job should be accepted based on their knowledge of acceptable rules in the professional community and potential risks derived from a situation.

4.2 Problem-Solving Approaches AFTER Accepting a Job Offer

This sub-section primarily concerns novice-professional differences in problem solving AFTER accepting an offered job. Based on data analysis, the following four key areas of novice-professional differences emerged: the achievement of accurate comprehension of a Source Text (ST); addressing risks derived from the interpersonal aspects of challenges; searching necessary information; and achieving adequate readability in a Target Text (TT). Each of the key areas will be presented and discussed below.

Accurate Comprehension of an ST. Here, a focus is on the ways in which translators attempt to avoid risks which are derived from the misinterpretation of the meanings and functions of an ST, and their impact on translators and other stakeholders who are involved in the job. The issue of 'accuracy' recurred frequently in professionals' discourses. What stood out is that they were prone to take a clear-cut approach in making a judgement of the extent to which they should maintain accuracy. Some of the novice participants, on the other hand, exhibited swings between the achievement of the two axes. The comments below by the professional participants clearly displayed the importance of maintaining accuracy in a TT as a translator's role.

Excerpts 7:
(Additions and omissions are things that) *a translator is <u>not supposed to</u> do'* (Professional 14)
It is an <u>obligation</u> of a translator to try to keep the original tone' (Professional 2);
Never change the content is <u>a translator's role</u> (Professional15);
<u>I don't think it is appropriate</u> to omit them (exaggerated expressions). (Professional 3)

While some novice participants shared the above view, some other novices, as seen in Excerpt 8 below, exhibited their swings between these two axes. This may suggest that the novice participant shifts to the achievement of the appropriate readability for target readers, although they were aware of the fact that achieving an accurate TT is also an essential requirement in translating. Such a swing by the novice translators appeared to be partly due to their lack of expertise in achieving accurate comprehension of an ST and its realisation in a TT. This is because a translator is unable to make such a judgement unless their knowledge and skills in these two poles have reached at the appropriate level to do so. Another possible reason would be the extent to which a translator possesses appropriate knowledge of 'translator's roles', or norms of translation (Toury, 1995), which are widely accepted amongst professional translators.

Excerpt 8: *Well… In translating, I pay attention to the meaning, but my translation swings by considering small things. I think it is hard to say which (accuracy or naturalness) should be prioritised.* (Novice E)

Another aspect emerged only from the professional side which concerned a relationship between the achievement of an accurate TT and the consideration of risks. As Excerpt 9 below exhibits, this translator's decision appeared to stem from the need of gaining necessary information to achieve accurate comprehension of an ST. Gaining necessary information in this way also enables the translator to avoid a situation where they are liable for unnecessary responsibilities.

Excerpt 9: *I would try to contact a technician from the company and have them explain what is unclear to me in the manual. If I have time, I would go to their plant to have an actual look at the machine as they explain how it operates. I believe a translator should make this kind of efforts because a manual of this sort needs to be translated clearly and precisely for safety reasons.* (Professional 12)

On the contrary, as Excerpt 10 below displays, achieving appropriate readability can be prioritised over the maintenance of accuracy on some occasions. This professional participant judged that the given situation does not involve the same degree of accuracy as that in Excerpt 10. The text type and functional role of an ST appeared to hold an important meaning in making such varying decisions. As, Wilss (1982), Reiss and Vermeer (1984), and Nord (2005) suggest, translator's decisions concerning the above issue are likely to vary depending on the text type of an ST and instructions given by a client.

Excerpt 10: *I would alter my translation if I judge that the text could make the receptor unpleasant. Because this is not a kind of business document, I would judge that free translation is acceptable.*

Of course, it would be better to let the client know about this. (Professional 8)

Building a Sound Relationship with a Client. This area of novice-professional differences represents translator's perceptions and decision-making on how best a translator can establish a sound relationship with a client in engaging in a translation job. The first identified aspect concerned consideration to client's preferences. In the translating process in a real-life situation, a translator is likely to experience situations where a decision cannot be made without reference to writer's or client's preferences, and intentions encompassed in a job. What is important, therefore, is to clarify what problematic segments of an ST are meant and what kind of preferences a client possesses. Narratives on this issue both by novices and professionals were prone to centre on the stylistic feature of an ST and a TT. A distinct novice-professional difference, however, were identified on this issue. As represented in Excerpt 11 below, the professional narrative highlighted the importance of confirming with a client concerning their stylistic preferences. This appeared to suggest that gaining precise knowledge of the purpose of a translation job from a client is necessary.

Excerpt 11: *You should liaise with the client. Explain that the source text does not convert very well into Japanese and that the job is really copywriting. Ask if you can have some freedom to come up with a Japanese version, still based on the English original of course but more appropriate in Japanese.* (Professional 11)

Novice narratives, by contrast, exhibited that they would rely on their own judgements. The most explicit example of this by novices is evident from Excerpt 12 below, which displays no option of consulting with a client. On the issue of the use of *katakana* words, the dependence solely upon one's own decisions can be problematic because it may pose difficulty in the incomprehensibility of an equivalent term in a TT for target readers. Moreover, if footnotes were overused, the segment of the TT may hinder target readers' desire to read the TT because target readers would have to refer frequently to the footnotes.

Excerpt 12: (Concerning translating cultural-specific terms) *I will make it in katakana plus a footnote. With slangs, I would make it in Katakana with an explanation. I think this way would be better because I would like to maintain the ambience of the original.* (Novice C)

The second aspect concerned the issue of clarifying the writer's intended message in an ST with a client. It is certain that this also links to the kind of target readership which a client wishes to achieve. As Excerpt 13 below clearly displays, the professional's motivation for client clarification seemed to be the need of achieving full comprehension of messages conveyed by the ST writer.

Excerpt 13: *Unless understanding what an original text says, I won't be able to translate the text. I would first contact a writer or a person in charge and check the meanings of segments that are difficult to understand because of its abstract nature.* (Professional 1)

Novice participants, by contrast, exhibited their 'flexibility' in addressing such problems. Their principles in addressing these sorts of problems displayed swings between addressing the problems through the confirmation of the writer's intentions and dealing with the problems by themselves. This stance by novices is clearly illustrated by the Excerpts 14 and 15 below.

Excerpt 14: *If time is allowed, I would ask the writer for providing precise meanings.* (Novice C)
Excerpt 15: *I would translate it as it is. I am not supposed to change the content. I don't think it is also a good idea to improve the quality of the text by myself.* (Novice I)

Such a variable response seems to suggest that some novices have not become aware of the meaning and the value of confirming writer/client intentions to the same degree as the professionals indicated. Such a disparity is caused by differences in the extent to which a translator is aware of potential risks that are avoidable with pre-emptive action of this kind. The comments by the professionals suggest that a translator should not be over-dependent upon a client, but appropriate knowledge of when and how a translator can communicate with a client is very necessary so long as one wishes to be considered as a competent practitioner by the client.

The third key aspect concerns the importance of giving a positive impression of a translator to a client. It has been identified that this aspect is mainly motivated by translators' efforts and credibility in conjunction with taking client's standpoints into consideration. This professional in Excerpt 17 below considered avoiding risk in which a translator gives a negative impression of one's translator expertise to a client. The use of a 'translator's note' is indicated here as a way of providing further comments in which processes and reasons behind the translator's decisions are justified. While clarifying translator decisions could be useful, this professional seemed to be well aware of the risk that it may give a negative impression of the translator's expertise to a client, as can be identified from the Excerpt. No relevant discourse was identified among novice participants.

Excerpt 17: *If the position is 'Manager', make it 'マネージャー, and add a brief description of the position with consent from the client. Sometimes a translator's note might be used. (<u>but need to be careful not to sound like making excuses</u>).* (Professional 9)

As Excerpt 18 below suggests, this professional would adopt the option of visiting a client directly to obtain necessary information. As this professional illustrated, this method is likely to contribute to also gain a positive impression of one's translator expertise from the client because a client may perceive that the translator is genuinely committed to completing the offered job in a professional manner.

Excerpt 18: *If I go and see the real material at their venue, I can show my sincerity and seriousness to the job. This can contribute to a kind of promoting myself. They are highly likely to be accepting if I show attitude in which I don't wish to mistranslate, and I regard their product very important.* (Professional 4)

The next aspect concerned translator's perception of client personalities and their preferred ways of communication accordingly. In some cases, professionals need to consider carefully how they should communicate with a client based on the client's personality. This issue was only raised by professionals. The following two narratives suggest that some professional translators seem to take client's personalities into account in clarifying unclear matters. The professionals displayed the importance for a translator to be flexible in communicating with a client depending on the client's personalities.

Excerpt 19: *I would ask questions about the inconsistency of the text with what has been produced previously to the client <u>if he/she is cooperative and not arrogant</u>. If <u>he/she is not cooperative and arrogant,</u> on the other hand, I would simply <u>translate as it is</u> with leaving unclear matters in a translator's note. (A translator is also a human.)* (Professional 9)
Excerpt 20: *I would check with the client <u>if I think that the client seems ok to ask</u>. But there are clients who are not willing to be criticized or questioned what they write. In this case, I would translate accordingly.* (Professional 9)

Achieving Appropriate Readability in a TT. In solving problems in terms of achieving appropriate readability in a TT, two specific issues emerged, i.e. achieving adequate readability in a TT; and considering target readers' expectations.

The first aspect concerned the ways in which a translator makes an attempt to achieve adequate readability in a TT, which is suitable for a particular target readership. As seen from Excerpts 21 below, the first strategy was to provide additional information in the main body of a TT (rather than as a footnote) in order to improve the readability of the TT. No narrative on this issue was identified on the novice side. Both narratives shared a common basis: the use of *katakana* words and phrases is not adequate enough to achieve readability for target readers if terms in an ST are not widely known amongst Japanese target readers (e.g. a batsman, a wicket used in the context of the sport cricket). This is because the use of *katakana* words and phrases could hinder target readers' precise understanding of the original messages. Thus, professionals' consideration of the appropriate readability of a TT seemed to stem from the ways in which they would solve problems arising from the viewpoint of target readers.

Excerpts 21: *As for newly-established words, I would first ask the client for their meanings, and then provide explanations about the words in footnotes. I would use katakana or English as they are, and when initially mentioning them I would provide brief explanations of them in brackets*[iv]. (Professional 9)
I would not simply put the newly-established words in katakana, though, as they are "newly-established" and most Japanese would not understand what they mean if they were expressed in katakana, and that might cause confusion for them. (Professional 6)

It would be worth noting that the strategy taken by the professional displayed below cannot guarantee its usefulness in all kinds of situation. This is because such a solution cannot be applied to all text types. In translating a literary text, for instance, substituting information in the main body of a TT would not usually be a preferred action because this could distract target readers' concentration in following the plot. Instead, the use of footnotes was suggested by the professional participant as seen in Excerpt 22 below.

Excerpt 22: *I think that readers may not be able to understand the meanings unless they have enough background knowledge about cricket. In these cases, I would provide explanations about cricket as a footnote.* (Professional 3)

In summary, the above two specific issues suggest that professionals sought to estimate very carefully the expectation of target readers, making them feel as if they were reading an ST as it were in an English original.

Information search. The importance of information search in the translating process appears to be widely-accepted among the translation community as the development and pervasiveness of the internet advances. Relevant narratives suggest that translators generally employ a wide range of methods to collect information for the purposes of both the comprehension of an ST and translating to produce a TT. The following descriptions illustrate the kinds of method that novice and professional translators were likely to adopt, i.e. 1) using information provided by authoritative sources; 2) seeking assistance from professionals; and 3) directly going to a site to gain domain-specific information. The reasons behind the use of such methods are also presented.

Some of the novices and professionals drew on information provided by authoritative sources. This includes, for example, governmental organisations particularly when they were seeking necessary background information or widely-accepted translation equivalences (e.g. organizational names, and the names of positions) in Japanese. Those translators in Australia, in particular, tend to make use of such sources because the use of tools like dictionaries do not necessarily provide appropriate equivalences in the Australian context. The use of authoritative sources as a means of information search appeared to stem from a belief that information distributed by official organisations is generally trustworthy. As seen from Excerpt 23 below, this professional goes further indicating the possibility of a direct contact, where necessary. S/he also stresses the importance of the careful consideration of appropriate ways in which a translator contacts such an organisation. Such a stance seemed consistent with the previously identified perception of appropriate ways of communicating with a client. The only novice-professional difference emerging from these narratives was that, as Excerpt 24 exhibits, this novice did not light on such a way of contacting an organisation. This may suggest the novice's lack of knowledge about how appropriately a translator needs to contact such an organisation.

Excerpt 23: *I would contact the organization by an email because staff there could feel nuisance as well as the fact that they are busy. According to my past experiences, I have been able to receive their response in 90% of cases when I inquired about this by emailing in a polite way.* (Professional 4)

Excerpt 24: *I would collect information as much as possible from websites including the company to understand the nature of the position. I would then apply an equivalent position in Japan.* (Novice H)

The second aspect, i.e. professional assistance, concerns a situation where a translator requires expertise possessed by a professional in a particular domain (e.g. an engineer, and a medical practitioner) and asks for another translator to work together on the translation job. The professionals appeared to possess knowledge of the most appropriate person to seek for assistance in a given circumstance. None of the novices, by contrast, indicated the idea of seeking professional assistance.

As exemplified in Excerpt 25 below, the usefulness of seeking a fellow translator's assistance was identified among professionals only. This professional, in particular, appeared to acknowledge the value of the expertise that a fellow translator possesses on the ground that not only does this method provides domain-specific knowledge necessary to accomplish a translation job, but also one's expertise in translation can be utilised by the initial translator. It is also worth noting that the professional narratives were consistent with the concept of 'opportunity cost'. The participant considered that gaining necessary knowledge was 'beneficial' and its impact on the translator's income was a 'cost' due to the fact that the benefit gained from solely engaging in the translation job without the colleague's assistance is compensated. Consequently, this translator considered gaining client's trust as an important outcome because this may contribute to gaining subsequent offers of translation jobs.

Excerpt 25: *If I can find another translator who has the necessary technical knowledge, I would explain the situation and ask for his/ her help for translation. In that case, I would be obliged to sacrifice my earnings from this job.* (Professional 10)

Much of the professional discourses referred to the method of seeking assistance from a professional who is specialised in one or more specific domains. As represented in Excerpt 26 below, the professionals expressed their intention to ask for such a professional's assistance in order to gain necessary domain-specific knowledge. It is also noteworthy in that the participant highlighted the importance of making the utmost effort to gain a full understanding of an ST, particularly when the content of the text poses risks in terms of user safety. There was no relevant discourse on the novice side.

Excerpt 26: *I would try to contact a technician or anyone who is knowledgeable of the machine from the company that produces it and have them explain what is unclear to me in the manual. I believe a translator should make such effort as a manual of this sort must be translated clearly and precisely for safety reasons.* (Professional 6)

The third method of directly going to the site to gain domain-specific knowledge was discussed by one professional only. In a different manner from the use of other resources as described above, this approach involves a translator learning directly how an object (e.g. a piece of machinery), which appears in an ST, actually works. As seen from Excerpt 27 below, such a direct learning method is likely to allow a translator to obtain in an effective way more concrete and precise knowledge of the object. This method seemed to suggest one way of displaying one's expertise through making such an extra effort.

Excerpt 27: *In the whole morning, I touched with parts, used them and assembled them. Having taken a note, I was gradually getting a general idea about the product, and this made me translate the text easier. I found from this experience that I should never be lazy. If a client is in Japan, I don't accept a job if I cannot look at a product directly. Even receiving images electronically cannot make my translation good. In terms of jobs related to machines, if a user does not handle it appropriately, this may result in very serious injury. Therefore, I never undertake jobs unless I can directly touch and understand by myself.* (Professional 4)

5. Discussion

Through the analysis of narrative accounts as reported above, the following overall characteristics have emerged in terms of novice-expert differences.

First of all, there were shared views amongst expert translators concerning managing risks, illustrating explicitly different characteristics from that of novices. Experts possessed a wide range of underlying knowledge and reflective principles to support their identification of potential risks and decision-making processes. By contrast, novice translators on the whole possessed inadequate knowledge of those 'norms' accepted in the professional community. This appears to be consistent with what Rollet (2001) suggests as being a result of the experience of a wide range of successfully handled situations which allows experts to organize and transfer their procedural knowledge to practice. This result may also stem from experts' well-developed schema in which previously-encountered problems are categorized in a more structured manner (e.g. Chi, Feltovich and Glaser, 1981; and Sweller, 1988). In short, they consider the effect of such risks/ problems and their treatment/avoidance not only for themselves but also for other stakeholders involved in translation jobs.

The second aspect concerned the issue of 'translator's roles', and here the data revealed distinct novice-expert differences. Experts possessed definite perceptions of translator's roles. Taking the issue of achieving both accuracy and readability between an ST and a TT as an example, experts acknowledged this as a challenge, but generally agreed that prioritising the maintenance of ST accuracy is a fundamental role of a translator. Novices, by contrast, indicated some evidence of a swing between these two poles. We may reasonably conclude that this principle among experts is resulted from experienced translating strategies and a degree of knowledge organization internalised through encountering a wide range of situations (Luconi and Tabatabai, 1999). Moreover, such a perception of the translator's roles held by experts can be supported by what Candlin and Candlin (2002) point out as deriving from the concept of risk management according to the institutional or organisational principles taken as a whole, rather than on any personal perceptions. The finding from the novices in this respect, in contrast, appears to coincide with what Simon and Simon (1978) refer to as the employment of a limited set of criteria occasioned by novices' lack of a range of knowledge and the immature development of their ability to organize knowledge.

The third point concerns the issue of addressing interpersonal challenges. The novice-expert difference is consistent with Toury's (1995) position on the translator's social roles, which is part of translation norms. Not only did experts indicate their intention of sharing necessary information with a client, but they also have devised various means of establishing a sound relationship with a client. Novices, on the other hand, tended to express their lack of knowledge of what and who are involved in the real-world jobs. This issue is likely to contribute to the development of key problem-solving abilities for novice translators in their learnings.

The last key issue concerns psychological factors. As was indicated from the novice translators' sense of uncertainty throughout the study, such an aspect may underpin novice-expert differences. As can be seen from Pym's (1992) argument below, translators are required to make the best choice among several options, and in doing so, building novices' confidence and competencies in this respect appear to play a pivotal role in assisting novices with developing their translator expertise.

The ability to select only one target text from this series, quickly and with justified confidence, and to propose this target text as a replacement of a source text for a specified purpose and reader. (Pym, 1992:281)

6. Implications of the Study

The present study sought to identify problem-solving approaches in translator expertise. The findings in the present study can play a role as a milestone in the design of the content of translator education, which help novice translators develop their translator expertise in the aspect of problem solving. The results suggested the need of accommodating aspects of translator expertise where novice-professional differences are apparent, and the prime importance of bringing the 'reality' of translating in translation classrooms.

These findings, however, require triangulation employing alternative research methods. In doing so, it would firstly be necessary to quantitatively cross-examine the present findings. with a larger number of novice and professional translators. This is based on the fact that the present study was qualitative in nature and such a quantitative investigation with a larger population of novice and expert translators would strengthen the findings of the present study. The present descriptive studies were based on participants reporting 'what they THINK what they WOULD do' in encountering problems. This has the effect that not all of the narratives are necessarily consistent with 'what they ACTUALLY do' in reality. It is, therefore, necessary to examine the actual translating process and product in response to these real-world challenges.

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Notes

[i] Study 1 aimed to examine kind of translation challenges that novice and professional translators tend to encounter through a series of group interviews. In terms of its literature review, a focus was here placed primarily on novice-expert differences in the arena of Expert Performance Studies, and its relevance to the case of translation was then discussed. For more details, please refer to Inoue (2008).

[ii] National Accreditation Authority for Translators and Interpreters – any professional translators and interpreters in Australia is required to hold the accreditation in order to work as professionals in the country.

[iii] With the interviews with those participants who preferred over email correspondents, scenarios and prepared questions were initially emailed, and further questions were asked in subsequent emails where necessary. While it depended upon the contents of participants' initial responses, there were 2 or 3 subsequent emails on average in order to obtain sufficient information as close as other face-to-face interviews.

[iv] A software which allows us to systematically code and categorize data.

[v] "brief explanations of them in brackets" was here meant by adding extra explanations in the main text of the translation next to the equivalent terms. By contract, "translator's notes' in Excerpt 17 was for the client, while "footnotes" mentioned in Expert 12 was for the sake of target readers.

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APPENDIX 1 AUTHENTICATED SCENARIOS

The following scenarios aim to bring about novice and professional translators' ways of dealing with challenges that they are likely to face. Please read the scenarios and answer the questions with as much detailed explanations as possible.

1. You have received an original English text and now realise that the text is not written by a native speaker of English but by someone whose mother tongue is LOTE. You feel that the quality of the text is poor and some parts of it are difficult to understand. In addition, the timeframe of this job is very tight. How would you go about managing this translation challenge?

2. You are translating a document which contains the names of quite a few Australian organisations and the names of positions within these organisations. You have found that there is no comparable equivalent of these names and these positions in Japan. How would you go about managing this translation challenge?

3. You have accepted the job of making a translation of a manual relating to the operation of a machine. Although the sample provided beforehand did not seem to encompass challenges, as you translate the actual manual, you realise that some segments of this manual contain very technical terms and explanations of the machine processes, which extend beyond your technical background knowledge. Even if you refer to relevant references, their explanations still remain beyond your knowledge and comprehension. How would you go about managing this translation challenge?

4. You are currently undertaking a translation job in which you are being asked to translate a love letter written by an Australian young male to his ex-girlfriend who is Japanese. Because the writer would like to express his continuing love for her and regain the relationship as previously existed, the original letter becomes rather passionate and emotional. How would you go about managing this translation challenge?

5. You are currently working on a product brochure on computer software in which the writer uses a significant number of exaggerated words and expressions as well as words and expressions that do not seem to exist in Japanese, seemingly in order to make the text appear impressive and very modern-sounding. How would you go about meeting this translation challenge?

6. You are currently translating an Australian novel in which there are a number of slang expressions used only in Australia, as well as some specific cultural references. These include, for example, terms which are restricted to sport including some jargon words used in relation to the game of cricket. How would you go about meeting this translation challenge?

7. You are currently working on a translation of a program of a performing arts event. In this program, there is a text which introduces the art director's past achievements and philosophy about performing art. This text is difficult to understand because of its abstract nature. Moreover, what is written here appears to be different from the views that the director has expressed up to this point. How would you go about meeting this translation challenge?