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Interview date of October 27, 2020

Q. What business aspects should be considered when analyzing the business case around translation/adaptation of exams?

Competition and Demand

For us the biggest driver when analyzing the business case has to be the competition and the demand for a certification in a particular place. If the home market is starting to look a bit saturated, then potentially there is going to be some more demand for expanding globally and to establish this demand, it would be perhaps looking at existing credentials and seeing if the candidates that have successfully passed have been based in a particular country. If there is that existing candidate pool in a country, then maybe there's demand for the qualification there, but also looking at things like the competition that you might face. So, are there other international exam providers that are already active in a particular country or have you actually carried out any market research to establish levels of demand for credentials? Also, what would actually be potentially successful in that market? Would the identical certification work or not?

Partnerships

Another critical sort of business aspect that you would want to look at earlier on is the relationship that you have with your existing partners. Launching an exam or certification program overseas without support from training providers, platforms, vendors, test centers, or even physical printers and publishers, as well as distributors, if you do not have that for a start, then that's already going to be difficult. So, you might need to then use them to help get involvement with national or local governments as well. So, things like permits might be difficult to get hold of in a particular country without that local support or particular accreditations that you need be it security or whatever for that target locale. And you will need to also look at how dependable each of those partners are that you have. So, in the case of, for example, a training partner, do they agree to train to your standards that you agree with them? So, things like the language of instruction, the class sizes, the actual methods of training, or are they going to follow their own curriculum, their own existing training patterns and just relate it close to or less closely to your qualification. How would that look for a particular country to have a different method of delivery, compared to another? How would prospective candidates look at that? And likewise, if you have existing sales channels, have they promised candidate numbers? If you are expecting to get demand through a partner, are they actually going to be able to achieve those? We have recently been working with a client who had spent tens of thousands of dollars developing an assessment in another language. And they had been promised hundreds, if not thousands of test takers, by their sales partner on their distribution Channels. But It didn't materialize so that the cost per

candidate there was underestimated essentially. Then the test center partners that you have, are they present in a different region? Are they technically able to deliver an exam in a different language with the same proctoring standards? As you know, you have in the original version or not, and check as well they will potentially say, "Oh yeah, we support multiple languages. That's no problem." But then you find that they have problems with things like right to left languages or complex script languages like Arabic. If that's the case, even if they say they could do it, you might still be in trouble. Also, partnerships with translation providers - do they have expertise in the language, in the subject area, can they provide SMEs? What process steps can they offer for the actual translation and adaptation process? If you have accreditations with organizations like ANSI or another body - do they recommend or require any specific process steps? If so, does the partner that you use for translation understand what's needed to make sure that the translation is fair, defensible and valid. Finally, things like publishing and printing. Can they print locally or are you going to somehow need to securely courier printed exam papers across the world? Can they print locally in paper format in the locally accepted format?

Staffing and Resources

Where a particular job function is not being outsourced to a partner, expanding into another language or territory is likely to increase the workload on your own internally with sources. This could be anything from needing to establish a 24/7 help desk capacity to support multiple time zones, to adding item writing or psychometrician capacity to your own team. That's before even factoring in the fact that you may need to start providing support in a foreign language. SMEs are used to develop the original language version. So naturally it's a good idea to involve them in the translation and adaptation process, but where do you recruit them from and how many are needed? It is important to ensure a representative sample from multiple backgrounds so as to provide some form of balanced consensus. Some of our clients have a couple of SMEs, others have up to 10 in their language groups. Where the time and effort is involved in developing the English qualification, you can't assume that the same will not be needed when you add a new language. In many cases it's almost as if you're starting fresh, so the effort required needs to be considered almost as if it was a fully new qualification.

IP Protection

How can the business be sure that the IP and the copyright will remain protected in a given country? Some countries, regions, and cultures particularly lack with regard to security, copyright, and IP. You need to plan for a potential overexposure of items, especially depending on the exam delivery methods, the level of proctoring that you're able to provide. You might need to adapt how the content is presented to candidates and you may find that there is conflict of interests in terms of countries or geographies where you have limited resources available. You might be using the SMEs for translation/adaptation reviews, but they might be the same people if there are few subject matter experts around that are involved in training as well. So, if those trainers are involved in a particular cohorts, formation, and education then it is important to check that they're not setting the same questions that they're teaching the students to, and subsequently grading their own students' exams.

Potentially, where countries have different time zones within the same country, for example, India or the U.S., students may need to start exams at exactly the same time where there's a higher risk of cheating or theft. One tip would be to have the exam session and then publish the exam as soon as there's being taken as a practice exam for future use. Then the items have been exposed and don't have any financial value to them. There are also the considerations around cost and security of printing locally. Do you ship the test forms that have been printed in, for example, the U.S.? What happens if the forms are then lost in transit? During international transit, it can happen that they end up in a warehouse perhaps retained by customs. What is the backup plan to produce those second set of test forms at short notice, if that is the case?

Buy-In

Buy-in is something that is often underestimated, but to actually get the resources that you need internally, it's fairly critical. There is the buy-in from the senior leadership who need to understand the actual level of commitment that's needed for the organization as a whole, not just your own division, and they then sign off the budget as well. Also, the buy-in from partners and potentially candidates and employers in a particular geography. Things like face validity, it is actually quite important to have that sort of face validity buy-in from the consumers of the exam, because if there's no value seen in the certification globally, then it's likely to mean that the demand just won't establish itself.

Risk

An organization's attitude to risk is important in that to put together a business case, you need to understand the levels of acceptable risk to an organization. Both in terms of the financial investment they're making in a potentially unproven area, as well as a potential opportunity cost of not being able to focus your resources instead on growth and expansion in existing and covered geographies. Is it more valuable to expand your existing entry level certification globally, or develop another certification pitched at a high level first or both possible simultaneously with current resources? This assessment of risk aversion will guide how lean any first steps may need to be, or if the possible upside outweighs the risks. An aspect that's often overlooked is marketing. We've been told that people have had their exam translated and then just sat back and waited for candidates to contact them. This is not the way to go about doing it. It's very important to have local sales representation with targets in place, and good local partners, because otherwise you're just not going to be successful.

Q. What impacts can starting a test translation/localization have on the organization?

Growth and Revenue

There are lots of upsides to organizations expanding globally. When we have worked with some clients on one language, it soon becomes multiple languages when they realize the expansion - how possible and how it can work for them. So, while the U.S. market is fairly large globally, the market in the rest of the developed, and even the developing world is even larger. It can be a good way to grow your

customer or membership base if you're able to translate or localize your certification. If done right, realistically over time, the only possible effect on revenue is positive.

Reputation

It could also have a positive impact on a brand's reputation. By pushing up local awareness in different territories, your brand's presence, especially online, will become more obvious in your home country to the global authority of the program increasing. The reputation of the organization is still something that's worth managing carefully, though, as face validity can play a huge part in the success of an expansion program. A decision to localize an exam for a particular territory may bring about a need to change the organization's focus and more carefully position the brand globally, ahead of launching a translated or localized exam. In order to improve other markets' perceptions of the value of the credential. Without this, demand may be less present overseas if they see an alternative qualification is more esteemed. Reputation is something that needs to be monitored all the time. You need to avoid a situation where a company is telling people that they represent you, but what they're actually offering is a pale imitation of your original exams and training materials in English. In fact, one of our customers recently, we back-translated something which had been presented in a particular country as being from this U.S. organization. It became clear very, very rapidly that it wasn't and it was very poor quality.

Budget

Translating and localizing tests doesn't come cheap. One of the most obvious impacts on the organization is on the budget, not just from the perspective of the translation costs, but the ancillary costs of operating globally. This could include the provision and auditing of overseas training and test center facilities, the marking of exams in a foreign language, the increased overheads in candidate communications, certificates being dispatched internationally, the processing of foreign credit card transactions, and any tax implications of operating overseas. This cost increases directly as the number of languages or territories that you expand continues to grow.

Human Resources

On a related note to budget is that of human resources. They are generally inextricably linked. Although it's possible to hand off a translation project to a vendor like ourselves and receive the translation back with very little input from your side, it's not something that we would generally advise, and especially for things like specialized high stakes exams. We're talking about things like input from item writers and subject matter experts that are essential to ensure that the translation or the adaptation is actually functional and that any adaptations that have been made to a specific version are valid. This input is best shared between multiple subject matter experts - a) to provide multiple points of view and b) to lighten the workload of any one of them. This is a lot of work to be doing in addition to their day jobs potentially. This direct cost of including more subject matter experts has to be balanced against the actual expected number of test takers in a particular locale. As we talked about with regard to putting

together the business case, internal staffing is a consideration. Creating multiple language versions, it increases work for people like psychometricians, as well as for the marketing teams and customer or candidate support teams, which of course makes an impact on the number of staff that are needed to support all of the variations of the certification program. When updates are made to the competency framework in one language, in the original language, you're likely to need to update all of the languages, which then means some sort of project management resource between them. That's assuming that the content in the original language can then be used relatively easily for translation. If things like new job task analysis or more work needs to be done to actually establish the equivalents of professional practice across geographies, then that needs even more resources.

Legal and IP

Let's look at the area of your intellectual property. Your IP may need protecting in different ways in different markets due to different commercial threats and cultural differences on cheating, the value of exams, plagiarism, and exam training preparation companies using past questions, using your name, et cetera. As candidate numbers grow, you might also need to be more wary of the threat of challenges to the validity of the translated or adapted exam. Have translations undergone the same rigor and scrutiny as the original versions?

Global First

One of two related final areas where localization might have an impact is that of making the organization more of a global first organization. What I mean by that is by considering the global market ahead of a single territory, you can make the processes that you follow more adaptable, so that they respond to different market conditions or different ways of operating in different countries. That's not saying sort of focus on making a set-in-stone, single generic version that can work globally, but it's planning with a global first mindset. So, finding ways of making decisions that can either make translation or internationalization of the credential easier down the line. Things like on an item writing level - involving SMEs from different countries at the design stage, rather than as an afterthought when you go to translate in that particular language, that way the questions are more likely to be appropriate in the first place for different target markets.

This global first approach in marketing, might be things like making sure that the PDF assets are designed in such a way that they accommodate larger volumes of text, as the translated versions are probably going to be longer, in some cases 25% longer, and making exam items culturally neutral, if you can. You need to have this generic idea of how to deal with highly culture or geography-specific challenges, things like civil unrest that might cause a last minute change to a particular exam window in a particular country. Or, let's say a natural disaster hitting one part of a country worse than other parts. How do you deal with those in a generic sense so that you can then transport that process to multiple territories in different ways? And likewise, how would you decide whether to sit for a pen and paper exam in a particular country over computer-based testing. They're high-level questions, but they need that global mindset. Yet, they need very specific tailored solutions. And so related to that then is the

idea of importing lessons learned from different territories into the global program to improve the whole of that program for the future. So, using something that might've happened in one territory, like dealing with test administrations during a SARS outbreak in China that might suddenly become very handy in another country in 2020.

Q. What factors need to be in place before starting a translation/localization program?

Business Case

Let's look at what factors need to be in place for starting a translation and localization program. Before the process starts, it's very important for organizations to consider several factors. We recommend that they develop both a strategic and a tactical plan, including the next considerations. Firstly, they need to establish the need for the localization process in a business case, as we've explained in the first slide. Why is an organization considering localization? And is there a specific market for the localized version? It's very important to carry out market research and contact local distributors and potential buyers before even considering localization. Some organizations also only decide to start the localization process once they have a specific order from a local client, but that can of course lead to other issues and they then suddenly come under time pressure to produce the translation within a week.

Target Market/Audience/Language

So as part of what I've just said, organizations need to clearly determine the target market or markets into which they want to introduce their program. Both cultural and linguistic considerations need to be taken into account. For example, certain items may not be culturally appropriate in some countries. So this means that adaptation will be necessary. Several languages may also be spoken within a single country, so organizations need to consider translating into all of them potentially. And also, local legislation needs to be taken into account in some countries, tests and exams must follow some official guidelines and to be approved before they can actually be launched.

Partners/Budget/Timings

Another consideration is the choice of a suitable translation or localization partner. This can be done by an art therapy, for example, through referrals or falling some research on the most specialized or competent companies. But whatever the case, we really do strongly recommend that organizations don't just consider financial aspects. Quality procedures and certifications experience, level of specialization, qualifications on the translation team, technical resources, privacy policies, all of those aspects really need to be taken into account, Choosing the right partner is absolutely key. Most translation companies would approach these types of projects as any other, but our experience has shown that this is a very risky solution. A lot of our clients have worked with several different translation companies and they have come back to us at some point because they realize how important it really was. Most tests and exams cannot just be translated directly, or they'll not really be fit for the purpose, even if they are linguistically accurate and correct. The right translation partner will be able to complete a detailed analysis of the texts and provide recommendations regarding the need for adaptation,

cultural aspects of the process to follow, and the timings and budget that are needed. Another important aspect is of course, budget and timings. Whether the localization process is to fulfill a specific order or to enter new markets, organizations need to have secured and acquired budget or sponsors before the process actually starts. Time considerations are also very important as most of our clients have very specific deadlines and dates by when they need the localized programs. To establish such requirements, it is always a good idea to request estimated pricing and timings to the partners who complete the actual localization process. It is important that they set realistic expectations to ensure quality. Both timings and budget will vary depending on several aspects like volume, language combinations, processes followed, and format. Think about how much time was needed to create a valid and reliable origin language version, and don't try to rush the translation process. Some organizations set the date for the translated exam to be taken, and then think about having the actual translations done. Always involve the translation partner before deciding on any timelines.

Process to Follow

It's important to also establish the process to be followed before starting. Translation partners will be able to make recommendations in this regard, but it is useful to consider best practice and industry guidelines. The international test commission guidelines were good to start to understand the complexity of the localization process. The creation of a new language version of a program should be similar to the development of the text, in the first place. A simple translation will convey the meaning, but not necessarily the purpose of the source. So, validity will be affected. That is why adaptation and localization is so important and why the translated program must go through several quality assurance, validation and trialing steps. It is also recommended to involve subject matter experts in the process so they can provide recommendations and guidance.

Technical/Professional Resources

Professional resources also need to be considered. Many programs are delivered online nowadays. So organizations need to ensure that platforms will be able to support other languages and scripts as sunset. The question should also be racist where the computer-based testing works reliably and securely in a particular local. In some other cases they may want to consider supporting more than one version of a test, depending on the gender of the person who is going to be completing it - because in some languages, men and women need to be addressed differently. Some of our clients have also specifically the better platforms where translations can be inserted directly online. Although this approach has certain advantages, we still prefer to work offline so we can make edits and can use the bar translation, memory, and quality assurance check. Ideally, we would recommend such platforms if the texts can be easily uploaded at the end of the process for paper test partners and costs for creating the different language versions need to be considered. Whatever the case the organization must ensure that they have all the technical resources and the team ready before the project starts. They must also have project managers, experts, and other professionals who can deal with the project and provide expertise as and when needed. When all the details of both have been established, undocumented organizations

must speak about the documentation that they'll need to be translated or use as reference during the localization process.

Manual/Training/Collateral Materials

This includes not just the actual item texts, but also any collateral materials such as online texts. For example, application forms, reports, training materials, glossaries, and even manuals. Most of our clients place a lot of emphasis on item texts. It is of course the most sensitive area, so they often have a much higher budget for that and use cheaper resources for the rest of the materials. While this is of course understandable and is acceptable, it is vital that they also consider the importance of consistency of terminology and spell throughout the materials. I think consistency will affect the results of the respondents. So, for example, if a specific concept is translated using a term in the training materials and the term used in the actual exam is different. Candidates will probably be confused by that and they give the wrong answer because of this. It's also important for linguists to understand the purpose of the item as they need to make sure that it works and that it gives the same level of difficulty once translated. We therefore recommend, highly, to either use the same company for the translation of all the documents or to create a preferred reference material before the actual project starts. For example, bilingual glossaries, approved translations in the target language, reasoning behind the items or answer keys. This will help linguists and show consistency throughout the materials, correct interpretation of the source, and also the validity of the translated items.

Specific needs/Guidelines

It's worth mentioning that if the organization has any specific needs or preferences in terms of style or terminology, or any instructions or guidelines on how to localize or adapt the text, what to translate or how to handle things such as non-editable texts, acronyms, gender, or level of formality, they should let the translation company known as early as possible in the process. Ideally before they prepare an actual proposal for them. It's also important to prepare and sign some legal documents before the project starts. NDAs and services, agreements protect both the organization and all the partners involved in the project. So, we highly recommend seeking legal advice and reaching an agreement on the documents to sign. And finally, we'd like to highlight the importance of getting accreditation where possible. In some countries, this may not be necessary, but it's always good practice to seek it. Organizations need to research the documentation that's needed and have written records of all the steps that will be taken and ensure that their partners provide the necessary documentation as evidence that all procedures have been followed correctly, and that all parties involved are properly qualified.

Q. What are the key process steps in successful test translation/adaptation?

Preparation is Key

We'll now talk about the key process steps in a successful test translation or adaptation. What are the key process steps to translation and adaptation? Well, there really isn't a single answer to this question. It very much depends on specific requirements, budget, timings resources available, et cetera. Having

said that there are some steps that can be considered good practice. For example, preparation steps can really make a difference. These may include many things from an in-depth analysis of the source specs, to anticipating segments in terms that may need to be clarified or to the creation of a proper use of definitions or instructions and guidelines for the translation teams. Or, it could even mean the preparation of clusters, translation, files, translation, memories, and other reference instrumentation. Whatever the case, the point here really is to foresee what may go wrong or what might cause problems in the translation to find a solution or a guideline on how to address it before the actual translation process starts. If preparation works properly done, not only could review on penalization time at the end, be significantly reduced, but the risk of inaccuracy and inconsistencies should also be much lower. It's worth mentioning that it is vital for the organization to be involved in the preparation of some of these materials as they are experts in the subject, and also familiar with source specs. No amount of research will ever come close to firsthand expertise. Most tests and exams require some amount of adaptation or localization. Failure to successfully adapt the text will seriously affect the validity of the translation. Aspects that might need to be adapted or localize could be things like cultural or geographical references, units of measure, currencies, terms that do not have direct translations in the target language, items that do not work once translated, passages of text that would not apply to the audience or other things. Again, it is important that your organization approves any type of adaptation. We strongly recommend that subject matter experts closely review the suggestions from the translation company to make sure that they're happy with any implications of the changes before the actual transition process starts. This is also important because depending on the target culture, there could be significant changes to professional competencies or the way that the industry works in a different country, which could imply for the research new job task analysis, or changes to the competency framework before translation can be even considered.

Linguists

It's worth mentioning the translation should be completed by specialized linguists rather than subject matter experts. SMEs are very useful at the beginning and at the end of the process, as they can provide valuable subject matter expertise in the field, but they lack the linguistic knowledge and training and skills required to complete a good quality translation. What we often find is that with SMEs, when they've done their reviews, we have to do grammar, spelling, and other kinds of checks and also consistency because they may change a word in one part and not change it in another part. So, machine translation should also be avoided if at all possible when translating highly sensitive materials as no algorithm can take into consideration all the aspects that come into play in an exam. It's also considered good practice to involve more than one linguist in the translation process as human error happens, and a second translator can provide valuable input and additional knowledge. The second linguist can act as a proofreader and reviser or as a second translator who produces an alternative version of a text, which you send reconciled by a third linguist or expert. Another key step in the process is the Q&A and finalization stage. We firmly believe that it can determine the validity of the translated exam and significantly reduce the risk of mistranslations or issues. This stage can include several services, such as back translation into the original source language, detailed comparisons of the translations with the

source text, discussion with the teams, and fine tuning of the translated text. These steps are usually completed by teams of linguists and internal experts who are able to identify and address potential issues before the text is delivered to the client. This significantly reduces the review time on the client's or SME side as well.

Review

So once a text has been approved by the linguistic team, we strongly recommend that the subject matter expert or several of them, or a contact from your organization, reviews both the forward and the back translation from an expert point of view. As developers or users, or secret professionals in the field, the best place to check and approve the terminology and the style of the translation, and to confirm that the items are fit for purpose. We provide guidelines for translation reviewers, and we also find in lies that translations after their review to make sure that all the changes are linguistically correct, and consistently implemented as suggested. This can be considered an initial validation step. Since most exams are not translated within their original layout or formats, and most translation files like context, we always suggest our clients are the native speaker. Linguists review the translation once it's in its final layout during this review, they not only check visual aspects, but also make sure that the translation makes sense and works once in context, the final step is the validation or trialing stage, although not all organizations go down this route. We highly recommend it and it may be necessary just to get accreditation.

Validation can take many forms from simple completion of the exam by a native speaker to qualitative and quantitative analysis. non creation for the country on differential analysis. Whatever the method used it is always recommended to anonymize performance of translated items and make any necessary adjustments along the way. It's worth noting that the organization usually complete the steps, although can also help with most of them, extensive database of experts and panels. And on a final note, it's worth mentioning that the SEC's Boff only indicative it is important to adapt the process steps to the needs of each project. A reliable translation providers should be able to offer the best solution for each client and should also have the necessary expert resources available to produce a high quality valid and reliable translated program.

I think one other thing I would like to add, if people come to us and say that they will want to have an exam translated; one of the things would say we would take them through the things that we've been talking about today and say you need to consider all these different aspects so that the actual translation step is probably 70% of the way down the line to the end goal. I think that's a very important point to actually make as well.

Wrap-up Questions and Answers

Q: I do have a one question in terms of further translation. It's better to be done by a team of linguistics. In my current job, we do not have international programs, but I do know like many programs, they kind of use their SMEs, subject matter experts, to do some translations. So how do

you kind of manage the work relationship between SMEs and the linguistics, they each have their own kind of expertise areas.

A: Depends a lot on the capacity for the SMEs in a particular organization. I know a lot of our clients have an issue actually getting commitment and engagement beyond a certain point with SMEs. The actual engagement between the two depends quite a lot on, how much time they have available in their own day-to-day work. I think managing expectations of what's required of the SMEs is something that organizations sometimes fail to address early on and actually outlining the extent to which they're meant to be involved. So sometimes to cut down the SMEs time commitments, we involve them, or we end up getting him involved with them on the glossary. It's quite a collaborative, small scale piece of work in terms of establishing glossary terms. That's a lot more concentrated vocabulary than thousands of words of exam items. And, because of that, the iterations and the process that you go through is a bit shorter with the SMEs then kind of critiquing a whole item bank. I'm not sure if that fully answers the question, but I think it depends on the level of engagement. What they need to be aware of though, is that where their expertise is, is the subject matter expertise and not the final wording of something. So, trying to manage their expectations, that when they get something back after they've submitted it to a linguist or a translation agency, and it's been changed, it's not because their input isn't valid, but it might be that grammatically it's not the best way of phrasing something. It's a delicate balance, but making sure that linguists have a final say over the actual polishing of something. I mean, you wouldn't put someone for example, I know this is a bit of an extreme example. You wouldn't put someone with dyslexia at the end of an exam publication process in English, for example. You value their input on the terminology, on the structure and on the actual functioning of the items, but you still would want your best English speaker or your best language speaker to be involved at the end of the item writing process to proofread. So that's the same way we look at it as linguists versus SMEs. I think also using some of our technology, like our translation memory system. When a translator's going through and they've translated something in a particular way once, that will come up as a suggestion in the text. So using the systems, which SMEs don't really have access to, can also help to improve the quality process.

Q: One more follow-up question is: I know for some small programs, it depends on how many users are in the target language audience, they consider instead of translating the whole assessment into that specific language, they are planning to provide a glossary. What is your feedback on that? That is, the exam is still in English and they would have a glossary of key terms.

A: There's an additional cognitive load involved for the candidates. If that's the case, to basically be mapping the concept that they've been trained on in say Spanish or Chinese, where they have that term available. So, it's possible. But I think it would potentially be biased depending on the level of English of the candidates, because those who have the higher level of English are going to have less, as I say, cognitive load of thinking, do I know that term? Okay. No, I don't. It's in the glossary. Okay. And now I've mapped it to that mental model of the term I have. It will also depend on if they're being trained in a particular language? Does that glossary of terms match the training material as well? Is there an established term for something? Because again, if the language of instruction is different to the



language of taking the exam, if that terminology doesn't match in the glossary, that's putting those people that are taking it, in a different language to the language of instruction at a disadvantage. One of our clients had actually provided very helpfully the English version and the Spanish version on opposite pages, but basically the Spanish version in any case was up to 30% longer. And, you were expecting people to sort of flip between the two of them plus taking him more. And, one of the things I said to them was, have you given a time accommodation, for the Spanish exam, in any case. They hadn't even thought of that. The results that we're getting from the Spanish candidates were so much lower because they were having to take in almost double the amount of information. I think also one of the points that we would make is that what are you actually testing? Are you testing somebody's knowledge of English or are you testing this subject matter knowledge?