

Qualitative Interview as a tool of Job Analysis in TVET Vietnam: Perspectives and Concepts

Abstract

In circumstance of lacking Monozukuri (JICA 2014) TVET Vietnam has been considered as “poor cousin on the education side of the family” (FHI360 & USAID 2013) in a long time. Thus, industrial factor has been struggled to improve this circumstance by providing In-house-training courses or on-the-job-trainings. But how to build training course in order to cultivate their newcomers with purpose to help them with adapting the demands of work at workplace and make them work-ready after training? Moreover, how to define skills need? These are some urgent questions in TVET Vietnam at this time, when most of Vietnamese companies have already set up training courses for their new workers, even advanced training after that. The author had tried to use the social research method qualitative Interview in a Vietnamese company to sketch out professional profile, which can be applied to design adaptive training course for newcomers and also used as standard for new recruitment in future. Through this process, the author has developed a new concept for Job analysis by using qualitative Interview, also some remarks when this method would be used. Moreover, this may be considered as a beginning for cooperation between stakeholders in Vietnamese TVET-companies and TVET institution.

1 Introduction: “Professional profile as a basis for training skilled workers“

Recently, major issue of Vietnamese TVET is all about skilled worker or the Japanese definition Monozukuri, that means, “making things“. Prof. Kenichi Ohno had over twenty years doing research on Vietnamese economics. He explicates the challenge: “manufacturing for the primary purpose of achieving customer satisfaction through high quality in the spirit of a proud and dedicated artisan, rather than just making profits” (Ohno 2010, 9). Moreover, JICA Vietnam has already confirmed, “The first issue is the difficulty in determining the skills needs of industry. The lack of detailed information on specific skills needs at the occupation level and the dynamic changes in skills demands make it hard for TVET institutions to grasp the demands of industry when it comes to skilled workers” e.g. in the case of MUTO Vietnam with model In-house-training of mold-and-die technicians since 1997 (JICA 2014). TVET Vietnam has difficult to access real world industry and stay the same in Supply-Driven Skills Development for a long time meanwhile many companies have tried hard to develop model in-house-training in order to solve hopefully problem of skills mismatch and skills shortage. Some foreign companies such as Bosch even has complemented world class famous dual model with purpose to supply skilled labors for itself.

It seems very easy at foreign companies such as MUTO or Bosch but it is another story with domestic companies. Since beginning of 21st century, many Vietnamese companies have tried to solve this lack of skilled workers but the absence of didactics as strategy to implement the model In-house-training could lead to functional training, which is shortly conducted right after recruitment direct on the job and extremely fixed on demand of the recruited job position in order to handle on daily tasks, which have been already divided in many simple tasks according Taylorism’s Philosophy, without basically theoretical Background of Profession. This phenomena has already happened in some companies such as state-owned enterprise PTSC (PetroVietnam Technical Services Corporation) and private firm Bui-Van-Ngo, where the trainees may be trained functional skills just enough to solve their tasks in specific working context within 2- 3 months. The author has recognized this problem during the field trips in 2017 and 2018 and realized that those companies have willingness to build partnerships with TVET-institution. However, they have difficulty to figure out their wishes about personnel needs despite they really know what they expect applicants, which they want to recruit. On the other hand, TVET institution also lacks of personal, who is able to analyze conditions at work place to grasp demand of real working world and sketch out suitable training courses to meet sustainably this demand, although the Government has encouraged involvement of the interest group (industry, enterprises and professional association) Lack of work-ready skilled workers is also an obviously obstacle, even major obstacle for developing manufacturing activities, also for deciding to invest modern technology in order to expand company’s capacity in Vietnam (see Figure 1). Through this figure, we can see that most of cases expected to hire skilled worker, who are well trained and work-ready. This is the major obstacle because labor market provides not enough qualitative and quantitative industrial human resources.

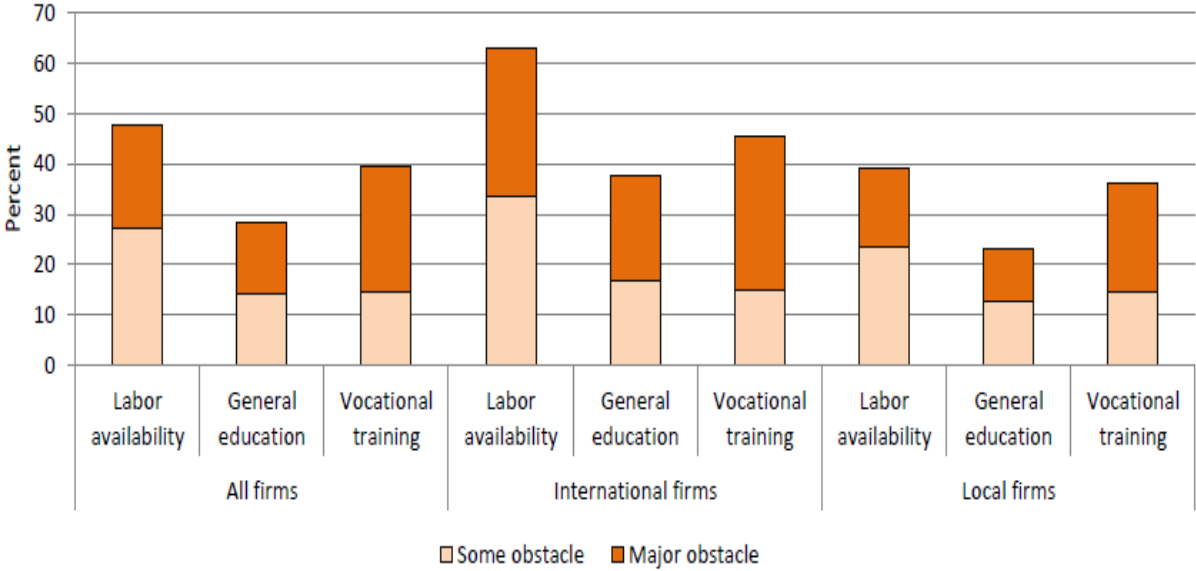


Figure 1: Lack of skilled labor is major obstacle in expanding manufacturing capability of firms in Vietnam (World Bank 2013)

This situation as *the head of Janus*, one side can be understood as high demand of more complex competencies, which a skilled worker unconditionally has to possess and fulfill. This is initiated generally by industry because of breakthrough in technology development and wishing of expanding their manufacturing, also because Vietnam is shifting from first stage of Agglomeration (normal Initial FDI absorption) to second stage of Technology absorption (has supporting industries, but still under foreign guidance) on the way becoming an industrial country. Another side of Janus’s head is the isolation of TVET-institutions from the development of industry and considered as “poor cousin on the education side of the family” (FHI360 & USAID 2013) in a long time. According to actual Vietnamese TVET law, established since 2016, TVET-institution can, although, play a more active role in developing and establishing a curriculum and in building partnership with industry. Nevertheless, the difficulties in accessing industry’s demand and establishing directly a connection with companies prevent TVET-institution from shifting from Supply-Driven Skills Development to Demand-Driven Skills Development. A processing of curriculum can more clearly be described as follows (see second figure): Head of department, who is responsible for vocational programs, under information about demand of industry and consultants of TVET-teacher can issue a training program with target of meeting request of human resources at a certain firm.

However, the difficulty in describing professional profile of a certain position makes this problem hard to solve while company does not have any proof regarding professional profile as information resource to provide TVET institution to sketch out a training plan. Through experiences from field trips, the author can include that a professional profile of a certain job or position of a job could be guidelines for developing training plan for this job at workplace and also used as resource of detailed information for making innovation curriculum in TVET institution.

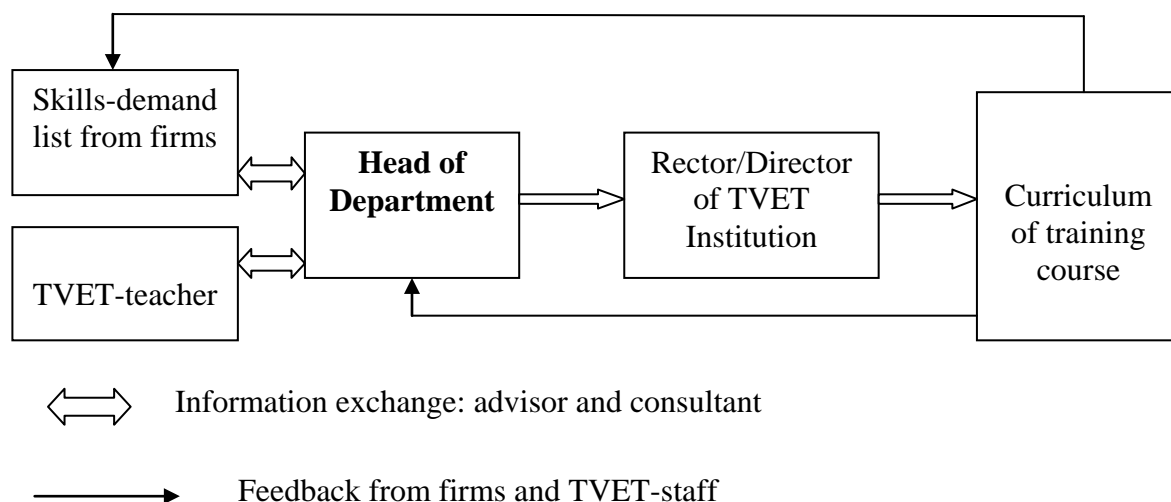


Figure 2: Process of curriculum development according to actual Vietnamese TVET law (VO, 2018)

2 Fundamental ideas of development a curriculum as theoretical background for preparing qualitative interviews in order to develop information resources for processing Curriculum – a criticism of current process in TVET Vietnam

There are theoretically many different approaches in Curriculum development, but a process of curriculum development especially in TVET-system, in which a “strong occupationally-based orientation, strong links between school, work and civic education, a more interventionist as well as more coordinated approach, which is, moreover, based on demand-orientation...” (Gonon 2013) is involved in order to shift the VET-system from Supply-Driven Skills Development to Demand-Driven Skills Development, is “... a sign for a better-established VET system” (ibid.). In CURRENT (CURriculum Revision und ENTwicklung)-model, for example, Ebeling and his co-authors have also discerned factors, which have vital impacts on decision of which relevant contents and skills should be taught in upcoming designed curriculum. One of them is demands of labor market, which are representative by needs of industry, besides another certain factors such as state and learner. Moreover, providing scenario of real working world in new curriculum plays obviously important role to enhance work-ready of learners. However, the industry’s intervention in case of TVET Vietnam at present in the development of the national standards on occupational skills is “...passive and dim.” (Molisa 2012), it leads to the result of “... qualification of the national standards on occupational skills is limited in terms of relevance for labor market. (ibid.). In the fact of last field trip, the author has recognized that this issue had even not influenced on industry, for example the establishment of occupational standard for CNC-technicians, which had already been introduced in 2011. Cause of this mismatch had already indicated in the Background Paper, published by MOLISA (Ministry of Labour, Invalid and Social Affairs) in 2012: “... the active participation is mostly by training institutions, whereas the role of enterprises is passive and dim.” (ibid), because more than one half of Editorial Board in processing occupational standard came from institution (see Establishment of occupational standard for CNC-technicians by MOLISA, 2012). Therefore, failure of this issue could be predicted. Moreover, DACUM (an acronym for the term Develop A CURriculum), a very well-known method for describing a job under a matrix of tasks and activities, was firstly introduced by Robert E. Norton in 1970s years, based on verbal describes of 5 – 12 skilled workers under guidance of a trained facilitator about competencies, which are essential to perform their works. The result of DACUM is lists of indicated job-specific skills, knowledge and also behavior, needed to fulfill tasks of working position. DACUM was introduced in Vietnam through a project of Swiss Contact in about 1990s years which intended to train a core group to develop Matrix of job analysis (Mori, 2009). Until now, concept of this method is used as standard in developing a curriculum and NVQs (an acronym of National Vocational Qualifications), which organized by MoLISA (Decision Nr. 09/2008/QĐ-

BLDTBXH of Minister of Labour, Invalid and social Affair, on 27. March 2008: Regulation on Process of Developing and Establishing National Vocational Qualifications Framework). At process of initiation of DACUM, choosing of participants plays a very important role and has very important impact to results and reliability of process. Because representative members come from certain companies, they cannot represent all of experts in the whole country or region. It also depends on expertise level of invited participants who come from choosing professional field. However, according to Decision Nr. 09 of MOLISA, experts, who are being invited to participate the DACUM-process, may come from both of TVET institution and industry. This may lead the result of DACUM-process to failure when invited experts are not representative for those criteria such as high level of technical competence, knowledge of job-specific development prospects, full-time employees, and good communication skill.

On the other side, the process of DACUM involves also tools, equipment, material and supplies, which a worker used in daily works. But in the fact of the job CNC-operator, the author has already recognized that an operator, who works at molding company and as mold-and-die technician, is requested more complex competencies than the operator, who works in field of machining manufacturing. As a CNC-machine-operator works as mold-and-die technicians, he/she has to face usually the changing form of work pieces and many kinds of molds and dies. In contrary, a CNC-machine-operator in machining manufacturing often works with repeatable form of work pieces and engages only certain structure of machine for example engine in pumper, used in agriculture, though both of them are working in the field of CNC-machines. Therefore the DACUM has disadvantage that it does analyze a job through observation activities of workers. Although matrix of the job analysis, after that, will be corrected under consultants of experts in 1 or 2-days workshop, but it has high risk of very superficial agreement, due to the fact that who would be specialists of the workshop. Moreover, it cannot be observed needs of soft skills, which are essential for the job, for examples careful, teachable...etc. That is why DACUM could not be used in analysis a job with complex activities such as in technical field of CNC because of abstraction of it. Therefore, a didactic for verbal description in the circumstance, when many companies in Vietnam have tried to develop training course for themselves, is urged to be introduced and applied. The palpability of work process (scenario of real work world) through analysis reflected work experience, which are collected by interviewing experienced worker, play vital role as valuable information resource to design inside training courses, to sketch out a potential developing path according to NVQs, based on demand of MOLISA as references of professional level classification and payment, and also for purpose to provide wishing lists to TVET-institutions to enhance their teaching courses.

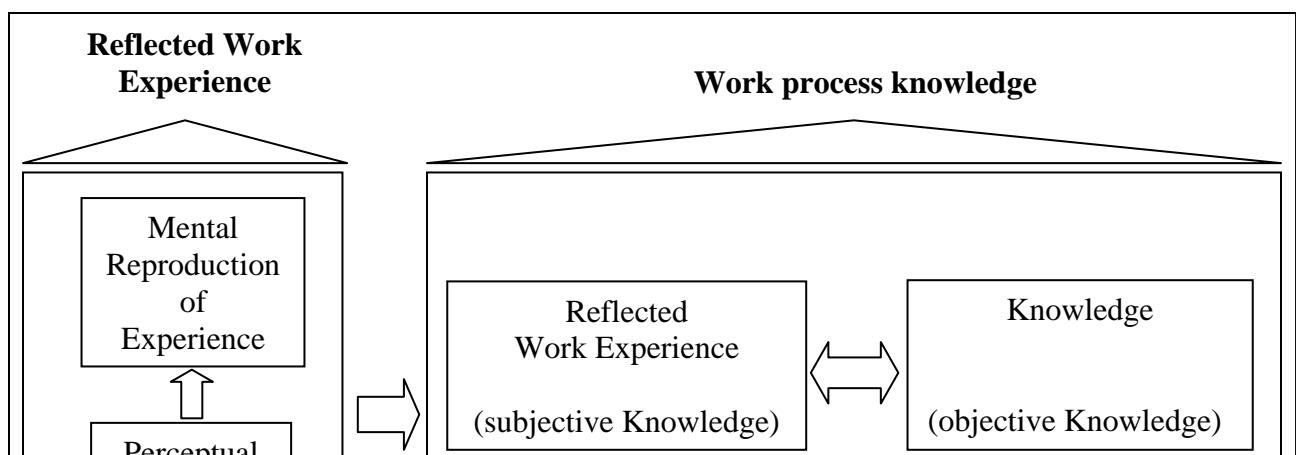


Figure 3: Connection between reflected work experience and work process knowledge (Lehberger 2013, 64)

The most important thing is how convert reflected experiences, which were collected or gained by skilled workers during their working life, to general knowledge about working process of specific profession. Making those very subjective experiences of each skilled worker with various professional level become neutral or objective and reliable enough, so that they could to be a foundation for designing for instance an inside training course (see Fig. 3), plays a vital role to create a valuable information resource. At last, there is a maxim in developing curriculum for a training course that is the necessary to withdraw knowledge, which is necessary to be taught, from identified needs or demands of a job/ a position of profession, which have been already analyzed. This is the background for the decision choosing the method of qualitative interview for analyzing and specifying professional profile. Then, the work process knowledge need to be controlled again by quantitative questionnaires before it can be used as information resource to process a curriculum. Indeed, a job can be divided into various positions, related to each other. At process of job analyzing, the observer could only watch and recognize visual relations and interactions between worker and equipment, which he/she needs in order to do his job. Unfortunately, the observer cannot see what lies beneath these activities e.g. when the operator works with control panel of CNC-machine to adjust macro program in order to control the machine. This is visual activity, can be watched, but how he can handle with macro-program, this nonvisual background, we do not really know. When being asked, he will confirm that knowledge of programming languages such as Visual Basic will be very helpful to do this. Moreover, many jobs nowadays deal only with computer, mostly deal with mental working such as CNC-designer and CNC-programmer, who have to sit on computer and do their tasks. These jobs cannot be observed to find out profile of them without interview, due to degree of abstraction and so called as interaction work – engine of knowledge economies, which has characteristic“ ,... for interactive jobs technology tends to complement, not substitute for jobs.“ (Aring

2013). Even when the observer try to connect their tasks with necessary working tools or equipments, which the worker need to finish their tasks. The figure 4 shows differences between three positions of job, which degree of abstraction and correlation of each job are very various. If the job CNC-operator can easily be observed or interviewed or both because the observer can recognize relations between tasks (object of work) and essential tools, and equipments in order to identify which knowledge, respectively competencies, which are essential for the job. But in case of the job of the CNC-Programmer, which worker only deals with computer, it it would beis more difficult to indicate required knowledge and / competencies, which are asked for this position. After all, the CNC-designer, which just work with customer to catch or realize their wishes to develop for example a prototype of injection mold. Therefore, an qualitative interview would be a more effective tool in analysis a job or a position of the profession. During last time, many companies hadtrying to try in contact with TVET-institutions in order to set a foundation of coordination in design demand-oriented training course but they had difficulty in describing their demand and from TVET-institution’s side existed the same problem when they have not capability to figure out demand of actual real working world.

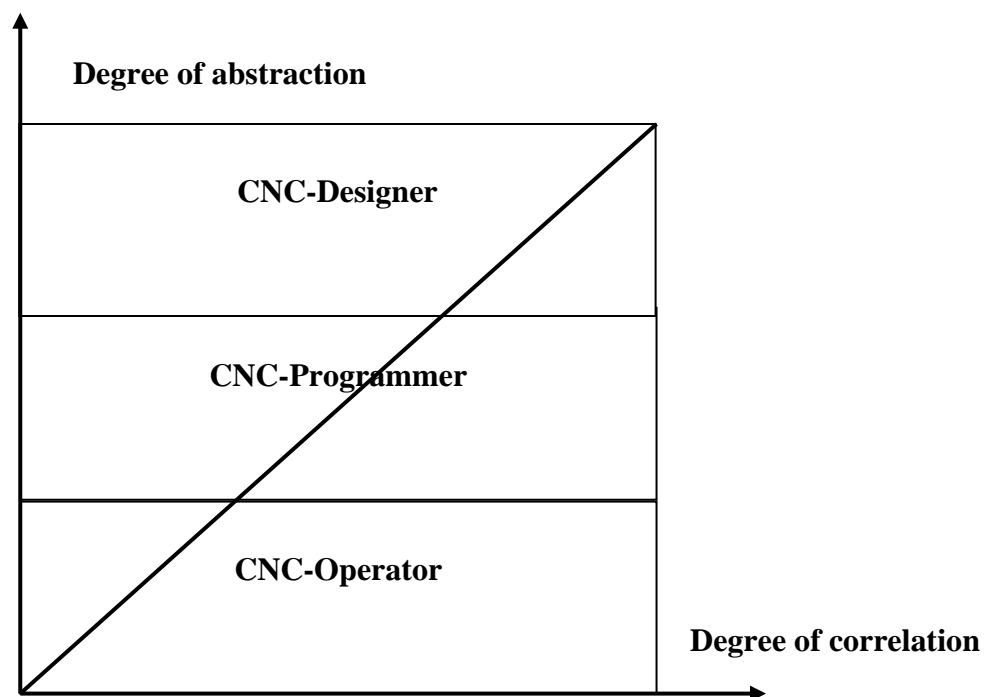


Figure 4: CNC jobs and their relation to degree of abstraction and correlation with workplace

3 Concepts of using qualitative interviews as a tool of job analysis

3.1 Criteria and instances of qualitative interviews

The first step in the process of using qualitative interviews as a tool of job analysis is determining criteria (Robinson 1971) for upcoming interviews. This step can be based on the question how a profile of job look like? The terms of professional profile involve not only required knowledge and capability for the job but also expectations of employer in relation to the job and vision of the job in future. That is why setting question sheet has crucial influence on result of research.

A next important step is choosing instances (Robinson 1971) or interviewees. While DACUM only focuses on experts, who are considered as experienced workers, and depends totally on those experts, qualitative interviews concentrate on experienced workers as well as on nearly inexperienced workers, who have served only several months at the position. Therefore, instances of qualitative interviews should be various workers, which have different level of experiences and views of the job. Then, it is very important to have a strategy in communication with interviewees through questions, which could be fixed. For example, with a freshman, we can ask for listing activities of the position and their expression at transfer process from learning environment to real working work too. From his point of view about the transfer process, we can evaluate work-ready' criterion of current curriculum. Moreover, they can demonstrate gaps between theories what they learn at school and what they really need in working world. This instance can provide valuable information to improve teaching process in TVET institution and give many proofs for modernizing current curriculum too. Through talking with experienced workers, outline of the position could be entirely drawn. This instance can indicate all about needs of the position such as knowledge, capability and soft skills. In addition, they always work with newcomers and train them. Thus, they can define the requirements of recruitment of a position, which can be used as targets or outcomes for training course and real review of current curriculum. In addition, they can give many valuable hints for training at work place, especially how to train effectively a newcomer and also give evaluation about current status quo's TVET. The last instance is top-level manager, who can supply vision of the job and expectation for the future, e.g. he wants to recruit personnel, which can control machine and use CAD/CAM software to compile NC- program from CAD files. In reality, both positions should be unique in just one job because they can complement each other. Due to lack of skilled workers, company must separate one position into two positions, which poses many disadvantages such as a programmer cannot imagine about machining process. It could lead to result that NC-program is not suitable to complete in real work.

Table 1: **Criteria of qualitative interviews**

Freshman/ newcomers	Experienced workers
<ol style="list-style-type: none"> 1. Working position 2. Daily activities 3. Vocational and training program 4. Difficulties at beginning of getting involved in the job. 5. Period from the very beginning to master the position. 6. Theoretical background of the position. 7. Impact of unscheduled activities such as new form of work pieces 8. Soft skills and attitude: independent, carefully, willingness of contribution, motivation of innovation at workplace etc. 9. How to face new tasks and change at work place. 10. Self-evaluation 	<ol style="list-style-type: none"> 1. Daily working activities 2. Required capability of the position 3. Disadvantages or weak points of newcomer 4. Period from the very beginning to master the position. 5. Training process for newcomers. 6. Soft skills 7. Impact of unscheduled tasks such as new form of work pieces 8. Expectation of the position for future. 9. Evaluation and recognize worker's contribution

3.2 How to conduct a qualitative interview effectively?

Using qualitative interviews as a tool of job analysis is suitable method for developing training course in certain company because it can figure out detailed information of working position at specified work place.

- A key factor of method is who will do interviews? At the first time, the author did it alone, only peer to peer, interviewee and interviewer. All of interviewees were aim and had willingness to express their experiences. However, at the second time, author did interviews with the people, who came from personnel department; this

interviewees might be not easy to advance their view. It comes from cultural feature. Interview should be done by external resource, for example personnel from TVET-institution.

- Voice dictation machine should be applied. It is very useful in next phase of qualitative content analysis. When interviewee feels uncomfortable, dictation machine must turn off.
- Using qualitative interviews to analyze the job totally depends on capability of interviewer. He should be friendly to make belief of interviewees in him at first by explaining clearly purposes of the upcoming talk and by showing that the interview will not bring disadvantages to them. Thereby he can convince interviewee's necessity of the interview and make them feel free to express their mind. The interviewer should prepare well for upcoming talks by listing questions in a sheet. Additionally, he should provide question sheet to interviewee in advance at beginning of the talk. He must have good strategy to use these questions and handle the talk well to get as much as possible information about needs of the job.
- Theoretically, qualitative interview is one of the best practices of investigating requirements of specific working position and getting information, which can be provided to TVET institution in order to design training course to meet demand of certain company. But the interviewer must be trained well or he should at least have good understanding of qualitative research method.

4 Recommendations

Two parties (company and TVET institution) could build partnership in training through sharing resource of personnel and technology in training process. TVET institution cannot create a scenario of real working world for learners on its own. Meanwhile, company can supply apprenticeship to learners to help them have chances to practice with real machines instead of learning through simulation with software at school but only when company do really know what learners have learnt in vocational school.

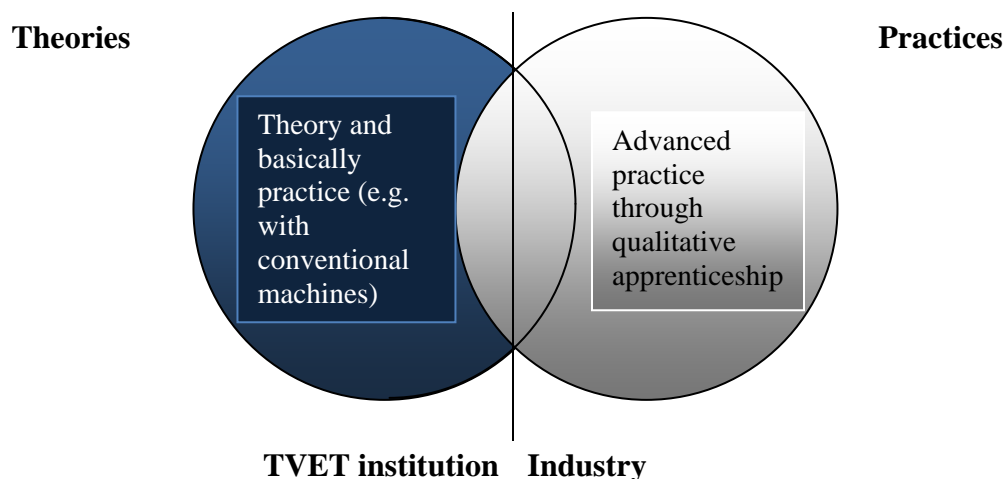


Figure 5: Model of building partnership in TVET training

In Figure 5, a model of partnership between TVET institution and industry is recommended, in which most of theoretical part and basic practice skills such as handling with conventional tool machines etc. will be taught in vocational school and then learners will practice their advanced skills during apprenticeship at company. This model can solve the actual gap between TVET institution and companies, that companies do not let apprentice to handle their machines because they do not know what learners had learnt and how their capability are. Through this model, company can have good chance to observe applicants during period of apprenticeship in order to choose them in near future and also do not need retrain them after recruitment, while TVET institution have not to equip more expensive, modern machines and have good chances to access real working by cooperation with company. They can send their TVET teachers to firms to strengthen their professional capability. But both of parties have to unify training content and also period, at when learner

Description of professional profile at certain company is also useful in evaluation and classification professional capability of workers. It makes process of evaluation and classification more transparent, fair and acceptable. Moreover, professional profile, which developed at a certain firm, might be used in processing national curriculum and NVQs after it is checked through a quantitative research to revise their representative character.

The description could be used as information resource for curriculum development just after it was controlled it's commonness through quantitative questionnaires. This work can be conducted under supporting of professional association.

5 Conclusion

It is nearly thirty years after DACUM, method of job analysis, introduced in Vietnam. TVET Vietnam requires an effective method in order to make apprehensibility of job, which is now called interactions work that demand worker has capability of complex problem solving, experience and overall learning ability to adapt changes from work context. Through two last field trips, the author has recognized the trend of dual training in TVET Vietnam, in which industry has willingness to coordinate TVET-institution to complement training course. However, they have difficulty to make apprehensibility of their demand because they really know what they want at their worker so they do not know how to describe it. While TVET-institution unfortunately has not also adequate personnel for job analysis. A concept for delineation of job's requirement should probably be useful in this circumstance of TVET Vietnam.

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TVET@asia The Online Journal for Technical and Vocational Education and Training in Asia

CITATION:

VO, Xuan-Tien (2019). Qualitative Interview as a tool of Job Analysis in TVET Vietnam: Perspectives and Concepts. In: TVET@Asia, issue 12, 1-13. Online: http://www.tvet-online.asia/issue9/VO_tvet12.pdf (retrieved 30.01.2019).

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